

Material Safety Data Sheet Cover-Sheet – This page provides additional New Zealand specific information for this product and must be read in conjunction with the Safety Data Sheet (SDS) attached

Product Name: Adper™ Single Bond 2

Manufacturer: 3M

SDS Expiry: 25 October 2026

Supplier Details: Henry Schein New Zealand
243-249 Bush Road, Rosedale, Auckland, 0632
PO Box 101 140, North Shore, Auckland 0745
Ph. 0800 808 855
www.henryschein.co.nz

Emergency Contacts: Poisons/Hazardous Chemical Info Centre –
0800POISON/0800764766 (24 Hours)
Phone 111 for Fire, Ambulance or Police

HSNO Class/Category: 3 / 6

HSNO Group Standard: Dental Products Flammable Group Standard 2020 HSR002556

Statements/Pictograms: As per attached Safety Data Sheet (SDS)

Date Prepared: This coversheet was prepared – November 2023

This SDS coversheet has been produced by Henry Schein NZ and has been prepared in accordance with NZ EPA advice on making overseas SDS compliant to HSNO Act. The above information is based on the present state of our knowledge of the product at the time of publication. It is given in good faith, no warranty is implied with respect to the quality or the specifications of the product. Users must satisfy that the product is entirely suitable for their purpose. The SDS and this coversheet may be revised from time to time, please ensure you have a current copy.



Safety Data Sheet

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|------------------------|------------|-------------------------|------------|
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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™ 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

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, 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.

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.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

Precautionary statements

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating and lighting equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280E Wear protective gloves.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
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 Store in a well-ventilated place. Keep cool.

Disposal:

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

2.3. Other assigned/identified product hazards

All or part of the classification is based on toxicity test data.

2.4. Other hazards which do not result in classification

May be harmful in contact with skin.

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 (HEMA) | 868-77-9 | 5 - 15 |
| Copolymer Of Acrylic And Itaconic Acids | 25948-33-8 | 5 - 10 |
| Glycerol 1,3 Dimethacrylate | 1830-78-0 | 5 - 10 |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | < 5 |
| Water | 7732-18-5 | < 5 |
| Diphenyliodonium Hexafluorophosphate | 58109-40-3 | < 0.5 |

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation**

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

Skin contact

Immediately 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 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

Substance

Carbon monoxide.
Carbon dioxide.

Condition

During combustion.
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.

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

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. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. 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.) Do not get in eyes.

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 | ACGIH | STEL:1000 ppm | A3: Confirmed animal carcinogen. |
| Ethanol | 64-17-5 | Australia OELs | TWA(8 hours):1880 mg/m ³ (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 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. |
| Colour | Light White-Yellow |
| Odour | Slight Acrylate |
| Odour threshold | <i>No data available.</i> |
| pH | <i>No data available.</i> |
| Melting point/Freezing point | <i>Not applicable.</i> |
| Boiling point/Initial boiling point/Boiling range | 78 °C |
| Flash point | 18.5 °C [<i>Test Method:Closed Cup</i>] |
| Evaporation rate | <i>No data available.</i> |
| Flammability (solid, gas) | Not applicable. |
| Flammable Limits(LEL) | <i>No data available.</i> |
| Flammable Limits(UEL) | <i>No data available.</i> |
| Vapour pressure | <i>No data available.</i> |
| Vapor Density and/or Relative Vapor Density | <i>No data available.</i> |
| 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/Kinematic Viscosity | No data available. |
| Volatile organic compounds (VOC) | |
| Percent volatile | No data available. |
| VOC less H2O & exempt solvents | |
| Molecular weight | No data available. |

Nanoparticles

This material contains nanoparticles.

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**Substance****Condition**

None known.

SECTION 11: Toxicological information

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

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

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

Inhalation

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

and throat pain.

Skin contact

May be harmful in contact with skin.

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Additional 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 >5,000 mg/kg |
| Overall product | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Ethanol | Dermal | Rabbit | LD50 > 15,800 mg/kg |
| Ethanol | Inhalation-Vapour (4 hours) | Rat | LC50 124.7 mg/l |
| Ethanol | Ingestion | Rat | LD50 17,800 mg/kg |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | Ingestion | Rat | LD50 > 11,700 mg/kg |
| Silane Treated Silica | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Silane Treated Silica | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 0.691 mg/l |
| Silane Treated Silica | Ingestion | Rat | LD50 > 5,110 mg/kg |
| 2-Hydroxyethyl Methacrylate (HEMA) | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| 2-Hydroxyethyl Methacrylate (HEMA) | Ingestion | Rat | LD50 5,564 mg/kg |
| Glycerol 1,3 Dimethacrylate | Ingestion | Rat | LD50 > 2,000 mg/kg |
| Copolymer Of Acrylic And Itaconic Acids | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Copolymer Of Acrylic And Itaconic Acids | Dermal | similar health hazards | LD50 estimated to be > 5,000 mg/kg |
| Diurethane Dimethacrylate (UDMA) | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| Diurethane Dimethacrylate (UDMA) | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Diphenyliodonium Hexafluorophosphate | Ingestion | Rat | LD50 32 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 | Rabbit | No significant irritation |
| Silane Treated Silica | Rabbit | No significant irritation |
| 2-Hydroxyethyl Methacrylate (HEMA) | Rabbit | Minimal irritation |
| Glycerol 1,3 Dimethacrylate | Rabbit | No significant irritation |
| Diphenyliodonium Hexafluorophosphate | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|---------------|---------------------------|
| Ethanol | Rabbit | Severe irritant |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | In vitro data | No significant irritation |
| Silane Treated Silica | Rabbit | No significant irritation |
| 2-Hydroxyethyl Methacrylate (HEMA) | Rabbit | Moderate irritant |
| Glycerol 1,3 Dimethacrylate | In vitro data | Severe irritant |
| Diphenyliodonium Hexafluorophosphate | Rabbit | Mild irritant |

Skin Sensitisation

| Name | Species | Value |
|--|------------------|----------------|
| Ethanol | Human | Not classified |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | Mouse | Not classified |
| Silane Treated Silica | Human and animal | Not classified |
| 2-Hydroxyethyl Methacrylate (HEMA) | Human and animal | Sensitising |
| Glycerol 1,3 Dimethacrylate | Mouse | Not classified |
| Diurethane Dimethacrylate (UDMA) | 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 sufficient for classification |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | In Vitro | Not mutagenic |
| Silane Treated Silica | In Vitro | Not mutagenic |
| 2-Hydroxyethyl Methacrylate (HEMA) | In vivo | Not mutagenic |
| 2-Hydroxyethyl Methacrylate (HEMA) | 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 classified for development | Rat | NOAEL 38 mg/l | during gestation |
| Ethanol | Ingestion | Not classified for development | Rat | NOAEL 5,200 mg/kg/day | prematuring & during gestation |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | during gestation |
| Silane Treated Silica | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| Silane Treated Silica | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| Silane Treated Silica | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |
| 2-Hydroxyethyl Methacrylate (HEMA) | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | prematuring & during gestation |
| 2-Hydroxyethyl Methacrylate (HEMA) | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | 49 days |
| 2-Hydroxyethyl Methacrylate (HEMA) | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | prematuring & during gestation |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|------------|-----------------------------------|--|-------------------------|----------------------|-------------------|
| 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 | Inhalation | central nervous system depression | Not classified | Human and animal | NOAEL not available | |
| Ethanol | Ingestion | central nervous system depression | Not classified | Multiple animal species | NOAEL not available | |
| Ethanol | Ingestion | kidney and/or bladder | Not classified | Dog | NOAEL 3,000 mg/kg | |
| Copolymer Of Acrylic And Itaconic Acids | Ingestion | nervous system | Not classified | Rat | NOAEL 5,000 mg/kg | |
| Diphenyliodonium Hexafluorophosphate | Inhalation | respiratory irritation | Not classified | 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 | Not classified | 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 | Not classified | Dog | NOAEL 3,000 mg/kg/day | 7 days |
| (1-methylethylidene)bis[4,1-phenyleneoxy (2-hydroxy-3,1-propanediyl)] bismethacrylate | Ingestion | endocrine system hematopoietic system liver heart skin gastrointestinal tract bone, teeth, nails, and/or hair immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system | Not classified | Rat | NOAEL 1,000 mg/kg/day | 90 days |
| Silane Treated Silica | Inhalation | respiratory system silicosis | Not classified | Human | NOAEL Not available | occupational exposure |
| Copolymer Of Acrylic And Itaconic Acids | Ingestion | endocrine system hematopoietic system liver | Not classified | 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 | Not classified | 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:**

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

| Material | CAS Number | Organism | Type | Exposure | Test endpoint | Test result |
|--|------------|----------------|---|----------|--------------------------------|-------------|
| Ethanol | 64-17-5 | Fathead minnow | Experimental | 96 hours | LC50 | 14,200 mg/l |
| Ethanol | 64-17-5 | Fish other | Experimental | 96 hours | LC50 | 11,000 mg/l |
| Ethanol | 64-17-5 | Green algae | Experimental | 72 hours | EC50 | 275 mg/l |
| Ethanol | 64-17-5 | Water flea | Experimental | 48 hours | LC50 | 5,012 mg/l |
| Ethanol | 64-17-5 | Green algae | Experimental | 72 hours | ErC10 | 11.5 mg/l |
| Ethanol | 64-17-5 | Water flea | Experimental | 10 days | NOEC | 9.6 mg/l |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | 1565-94-2 | Common Carp | Analogous Compound | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | 1565-94-2 | Green Algae | Endpoint not reached | 96 hours | EC50 | >100 mg/l |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | 1565-94-2 | Green Algae | Experimental | 96 hours | EC10 | 1.1 mg/l |
| Silane Treated Silica | None | | Data not available or insufficient for classification | | | N/A |
| 2- | 868-77-9 | Turbot | Analogous | 96 hours | LC50 | 833 mg/l |

| | | | | | | |
|---|------------|----------------|---|----------|-------|-----------------------------|
| Hydroxyethyl Methacrylate (HEMA) | | | Compound | | | |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Fathead minnow | Experimental | 96 hours | LC50 | 227 mg/l |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Green algae | Experimental | 72 hours | EC50 | 710 mg/l |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Water flea | Experimental | 48 hours | EC50 | 380 mg/l |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Green Algae | Experimental | 72 hours | NOEC | 160 mg/l |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Water flea | Experimental | 21 days | NOEC | 24.1 mg/l |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | | Experimental | 16 hours | EC0 | >3,000 mg/l |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | | Experimental | 18 hours | LD50 | <98 mg per kg of bodyweight |
| Copolymer Of Acrylic And Itaconic Acids | 25948-33-8 | | Data not available or insufficient for classification | | | N/A |
| Glycerol 1,3 Dimethacrylate | 1830-78-0 | Guppy | Experimental | 96 hours | LC50 | 43.2 mg/l |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | Green algae | Endpoint not reached | 72 hours | ErC50 | >100 mg/l |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | Water flea | Experimental | 48 hours | EC50 | >100 mg/l |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | Zebra Fish | Experimental | 96 hours | LC50 | 10.1 mg/l |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | Green algae | Endpoint not reached | 72 hours | ErC10 | >100 mg/l |
| 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 |
|--|------------|---------------------------------|----------|------------------------------|--|-------------------------------------|
| Ethanol | 64-17-5 | Experimental Biodegradation | 14 days | BOD | 89 % BOD/ThBOD | OECD 301C - MITI test (I) |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | 1565-94-2 | Experimental Hydrolysis | | Hydrolytic half-life (pH 7) | 29 days (t 1/2) | |
| (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | 1565-94-2 | Experimental Biodegradation | 28 days | BOD | 21 % BOD/ThBOD | similar to OECD 301F |
| Silane Treated Silica | None | Data not available-insufficient | | | N/A | |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Experimental Hydrolysis | | Hydrolytic half-life (pH 10) | 10.9 days (t 1/2) | OECD 111 Hydrolysis func of pH |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Experimental Biodegradation | 28 days | BOD | 84 %BOD/CO D | OECD 301D - Closed bottle test |
| Copolymer Of Acrylic And Itaconic Acids | 25948-33-8 | Data not available-insufficient | | | N/A | |
| Glycerol 1,3 Dimethacrylate | 1830-78-0 | Experimental Biodegradation | 28 days | BOD | 84 % BOD/ThBOD | OECD 301F - Manometric respirometry |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | Experimental Biodegradation | 28 days | CO2 evolution | 22 %CO2 evolution/THC O2 evolution (does not pass 10-day window) | OECD 301B - Modified sturm or CO2 |
| Diphenyliodonium Hexafluorophosphate | 58109-40-3 | Data not available-insufficient | | | N/A | |

12.3 : Bioaccumulative potential

| Material | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|------------------------------|------------|-------------------------------|----------|------------|-------------|---------------------|
| Ethanol | 64-17-5 | Experimental Bioconcentration | | Log Kow | -0.35 | Non-standard method |
| (1-methylethylidene)bis[4,1- | 1565-94-2 | Experimental Bioconcentration | | Log Kow | 4.63 | |

| | | | | | | |
|--|------------|---|-----|---------|------|---------------------------------|
| phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate | | | | | | |
| Silane Treated Silica | None | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | Experimental Bioconcentration | | Log Kow | 0.42 | OECD 107 log Kow shke flask mtd |
| Copolymer Of Acrylic And Itaconic Acids | 25948-33-8 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Glycerol 1,3 Dimethacrylate | 1830-78-0 | Estimated Bioconcentration | | Log Kow | 2.05 | Non-standard method |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | Experimental Bioconcentration | | Log Kow | 3.39 | Non-standard method |
| Diphenyliodonium Hexafluorophosphate | 58109-40-3 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Incinerate uncured product in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

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: Dangerous Goods in Excepted Quantities, Class 3

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: Dangerous Goods in Excepted Quantities, Class 3

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, 3M Division Policy

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.

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