



## Safety Data Sheet

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**Issue Date:** 01/05/2022                      **Supersedes date:** 02/02/2021

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™ RELYX™ UNICEM™ Aplicap/Maxicap

#### Product Identification Numbers

|                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|
| 70-2011-1559-2 | 70-2011-1562-6 | 70-2011-1563-4 | 70-2011-1564-2 | 70-2011-1565-9 |
| 70-2011-1566-7 | 70-2011-1567-5 | 70-2011-1568-3 | 70-2011-1980-0 | 70-2011-1981-8 |
| 70-2011-1982-6 | 70-2011-1983-4 |                |                |                |

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

##### Recommended use

Dental Product, Dental universal luting material.

##### 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

**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:**

18-0262-8, 17-9608-5

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.:** UN3082

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., ( Acetic Acid, Copper (2+) Salt, Monohydrate )

**Class/Division:** 9

**Packing Group:** III

**Marine Pollutant:** Not applicable.

**Hazchem Code:** -3Z

**IERG:** 47

**Australian Dangerous Goods Code (ADG) - Road/Rail Transport**

**Special Instructions:** Not restricted, environmentally hazardous substance exception.

**International Air Transport Association (IATA)- Air Transport**

**Special Instructions:** Not restricted, as per Special Provision A197, environmentally hazardous substance exception.

**International Maritime Dangerous Goods Code (IMDG)- Marine Transport**

**Special Instructions:** Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

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](http://www.3m.com.au)**



## Safety Data Sheet

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|                        |            |                         |            |
|------------------------|------------|-------------------------|------------|
| <b>Document group:</b> | 18-0262-8  | <b>Version number:</b>  | 5.00       |
| <b>Issue Date:</b>     | 15/09/2021 | <b>Supersedes date:</b> | 01/02/2021 |

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™ RelyX™ Unicem Aplicap™/Maxicap™ Powder

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

##### Recommended use

Dental Product, Universal luting material.

##### 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

Serious Eye Damage/Irritation: Category 2.

#### 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 Causes serious eye irritation.

**Precautionary statements**

**Prevention:**

P264 Wash thoroughly after handling.

**Response:**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 IF eye irritation persists: Get medical advice/attention.

**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.

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

This material is a mixture.

| Ingredient   | CAS Nbr     | % by Weight |
|--|-------------|-------------|
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2-methyl-3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | None        | 85 - 95     |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, hydrolysis products with silica  | 122334-95-6 | 1 - 10      |
| Substituted pyrimidine   | 72846-00-5  | 1 - 5       |
| Calcium dihydroxide  | 1305-62-0   | < 3         |
| Sodium Persulphate   | 7775-27-1   | < 1         |
| Titanium dioxide   | 13463-67-7  | < 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**

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable

**SECTION 5: Fire-fighting measures**

**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**

None inherent in this product.

**Hazardous Decomposition or By-Products**

Substance

None known.

Condition

During combustion.

**5.3. Special protective actions for fire-fighters**

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. 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**

Do not handle until all safety precautions have been read and understood. 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. Wash contaminated clothing before reuse. Do not get in eyes. Use personal protective equipment (eg. gloves, respirators...) as required. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. If product contacts glove, remove and discard glove,

wash hands immediately with soap and water and then re-glove.

## 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## 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            |
|----------------------|------------|----------------|--|--------------------------------|
| Calcium dihydroxide  | 1305-62-0  | ACGIH          | TWA:5 mg/m <sup>3</sup>                            |                                |
| Calcium dihydroxide  | 1305-62-0  | Australia OELs | TWA(8 hours):5 mg/m <sup>3</sup>                   |                                |
| Titanium dioxide     | 13463-67-7 | ACGIH          | TWA:10 mg/m <sup>3</sup>                           | A4: Not class. as human carcin |
| Titanium dioxide     | 13463-67-7 | Australia OELs | TWA(Inspirable dust)(8 hours):10 mg/m <sup>3</sup> |                                |
| PERSULFATE COMPOUNDS | 7775-27-1  | ACGIH          | TWA(as persulfate):0.1 mg/m <sup>3</sup>           |                                |
| Sodium Persulphate   | 7775-27-1  | Australia OELs | Peak limit:0.01 mg/m <sup>3</sup>                  |                                |

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

|  |                           |
|--|---------------------------|
| <b>Physical state</b>                                    | Solid.                    |
| <b>Specific Physical Form:</b>                           | Powder                    |
| <b>Colour</b>  | White-Beige               |
| <b>Odour</b>   | Odourless                 |
| <b>Odour threshold</b>                                   | <i>No data available.</i> |
| <b>pH</b>  | <i>Not applicable.</i>    |
| <b>Melting point/Freezing point</b>                      | <i>No data available.</i> |
| <b>Boiling point/Initial boiling point/Boiling range</b> | <i>Not applicable.</i>    |
| <b>Flash point</b>                                       | No flash point            |
| <b>Evaporation rate</b>                                  | <i>Not applicable.</i>    |
| <b>Flammability (solid, gas)</b>                         | Not classified            |
| <b>Flammable Limits(LEL)</b>                             | <i>No data available.</i> |
| <b>Flammable Limits(UEL)</b>                             | <i>No data available.</i> |
| <b>Vapour pressure</b>                                   | <i>Not applicable.</i>    |
| <b>Vapor Density and/or Relative Vapor Density</b>       | <i>Not applicable.</i>    |
| <b>Density</b>   | > 1 g/ml                  |
| <b>Relative density</b>                                  | <i>No data available.</i> |
| <b>Water solubility</b>                                  | Negligible                |
| <b>Solubility- non-water</b>                             | <i>No data available.</i> |
| <b>Partition coefficient: n-octanol/water</b>            | <i>No data available.</i> |
| <b>Autoignition temperature</b>                          | <i>Not applicable.</i>    |
| <b>Decomposition temperature</b>                         | <i>No data available.</i> |
| <b>Viscosity/Kinematic Viscosity</b>                     | <i>Not applicable.</i>    |
| <b>Volatile organic compounds (VOC)</b>                  | <i>Not applicable.</i>    |
| <b>Percent volatile</b>                                  | <i>No data available.</i> |
| <b>VOC less H<sub>2</sub>O &amp; exempt solvents</b>     | <i>No data available.</i> |
| <b>Molecular weight</b>                                  | <i>No data available.</i> |

**Nanoparticles**

This material does not contain 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**

None known.

**10.4. Possibility of hazardous reactions**

Hazardous polymerisation will not occur.

**10.5 Incompatible materials**

None known.

**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

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

#### Skin contact

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.

#### Additional Health Effects:

#### Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

#### Toxicological Data

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

#### Acute Toxicity

| Name   | Route     | Species | Value   |
|--|-----------|---------|---|
| Overall product  | Dermal    |         | No data available; calculated ATE >5,000 mg/kg        |
| Overall product  | Ingestion |         | No data available; calculated ATE 2,000 - 5,000 mg/kg |
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2-methyl-3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | Dermal    |         | LD50 estimated to be > 5,000 mg/kg                    |
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2-methyl-3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | Ingestion |         | LD50 estimated to be 2,000 - 5,000 mg/kg              |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,  | Dermal    | Rabbit  | LD50 > 5,000 mg/kg                                    |



|   |                                |                        |  |
|---|--------------------------------|------------------------|--|
| hydrolysis products with silica   |                                |                        |  |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, hydrolysis products with silica | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 0.691 mg/l                        |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, hydrolysis products with silica | Ingestion                      | Rat                    | LD50 > 5,110 mg/kg                       |
| Calcium dihydroxide   | Dermal                         | Rabbit                 | LD50 > 2,500 mg/kg                       |
| Calcium dihydroxide   | Ingestion                      | Rat                    | LD50 7,340 mg/kg                         |
| Substituted pyrimidine  | Dermal                         | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Substituted pyrimidine  | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                       |
| Sodium Persulphate  | Dermal                         | Rabbit                 | LD50 > 10,000 mg/kg                      |
| Sodium Persulphate  | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 47.93 mg/l                        |
| Sodium Persulphate  | Ingestion                      | Rat                    | LD50 895 mg/kg                           |
| Titanium dioxide  | Dermal                         | Rabbit                 | LD50 > 10,000 mg/kg                      |
| Titanium dioxide  | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 6.82 mg/l                         |
| Titanium dioxide  | Ingestion                      | Rat                    | LD50 > 10,000 mg/kg                      |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name  | Species                | Value                     |
|---|------------------------|---------------------------|
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | Professional judgement | No significant irritation |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, hydrolysis products with silica   | Rabbit                 | No significant irritation |
| Calcium dihydroxide   | Human                  | Corrosive                 |
| Titanium dioxide  | Rabbit                 | No significant irritation |

**Serious Eye Damage/Irritation**

| Name  | Species                | Value                     |
|---|------------------------|---------------------------|
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | Professional judgement | No significant irritation |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, hydrolysis products with silica   | Rabbit                 | No significant irritation |
| Calcium dihydroxide   | Rabbit                 | Corrosive                 |
| Titanium dioxide  | Rabbit                 | No significant irritation |

**Skin Sensitisation**

| Name  | Species          | Value          |
|---|------------------|----------------|
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, hydrolysis products with silica | Human and animal | Not classified |
| Substituted pyrimidine  | Mouse            | Not classified |
| Titanium dioxide  | Human and animal | Not classified |

**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         |
|--|----------|---------------|
| 2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica | In Vitro | Not mutagenic |
| Substituted pyrimidine   | In Vitro | Not mutagenic |
| Titanium dioxide   | In Vitro | Not mutagenic |
| Titanium dioxide   | In vivo  | Not mutagenic |

**Carcinogenicity**

| Name   | Route          | Species                 | Value  |
|--|----------------|-------------------------|--|
| 2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica | Not specified. | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| Titanium dioxide   | Ingestion      | Multiple animal species | Not carcinogenic   |
| Titanium dioxide   | Inhalation     | Rat                     | Carcinogenic.  |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name   | Route     | Value                                  | Species | Test result           | Exposure Duration    |
|--|-----------|--|---------|-----------------------|----------------------|
| 2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica | Ingestion | Not classified for female reproduction | Rat     | NOAEL 509 mg/kg/day   | 1 generation         |
| 2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 497 mg/kg/day   | 1 generation         |
| 2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl)propyl ester, hydrolysis products with silica | Ingestion | Not classified for development         | Rat     | NOAEL 1,350 mg/kg/day | during organogenesis |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name                   | Route      | Target Organ(s)        | Value                            | Species | Test result       | Exposure Duration |
|------------------------|------------|------------------------|----------------------------------|---------|-------------------|-------------------|
| Calcium dihydroxide    | Inhalation | respiratory irritation | May cause respiratory irritation | Human   | LOAEL 2.5 mg/m3   | 20 minutes        |
| Substituted pyrimidine | Ingestion  | nervous system         | Not classified                   | Rat     | NOAEL 2,000 mg/kg |                   |

**Specific Target Organ Toxicity - repeated exposure**

| Name  | Route      | Target Organ(s)                | Value          | Species | Test result         | Exposure Duration     |
|---|------------|--------------------------------|----------------|---------|---------------------|-----------------------|
| 2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl) | Inhalation | respiratory system   silicosis | Not classified | Human   | NOAEL Not available | occupational exposure |

|   |            |                    |  |       |                     |                       |
|---|------------|--------------------|--|-------|---------------------|-----------------------|
| D)propyl ester, hydrolysis products with silica |            |                    |  |       |                     |                       |
| Titanium dioxide                                | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat   | LOAEL 0.01 mg/l     | 2 years               |
| Titanium dioxide                                | Inhalation | pulmonary fibrosis | Not classified   | Human | NOAEL Not available | occupational exposure |

**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  |
|---|-------------|------------------|---|----------|---------------|--------------|
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2-methyl-,3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | None        |                  | Data not available or insufficient for classification |          |               | N/A          |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester,   | 122334-95-6 | Activated sludge | Estimated   | 3 hours  | NOEC          | >=1,000 mg/l |

|  |             |                  |   |          |      |              |
|--|-------------|------------------|---|----------|------|--------------|
| hydrolysis products with silica  |             |                  |   |          |      |              |
| 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl) propyl ester, hydrolysis products with silica | 122334-95-6 |                  | Data not available or insufficient for classification |          |      | N/A          |
| Substituted pyrimidine   | 72846-00-5  |                  | Data not available or insufficient for classification |          |      | N/A          |
| Calcium dihydroxide  | 1305-62-0   | Fathead minnow   | Estimated   | 96 hours | LC50 | 4,630 mg/l   |
| Calcium dihydroxide  | 1305-62-0   | Green Algae      | Estimated   | 72 hours | EC50 | >4,000 mg/l  |
| Calcium dihydroxide  | 1305-62-0   | Water flea       | Estimated   | 48 hours | EC50 | 2,400 mg/l   |
| Sodium Persulphate   | 7775-27-1   | Algae other      | Estimated   | 72 hours | EC50 | 320 mg/l     |
| Sodium Persulphate   | 7775-27-1   | Copepods         | Estimated   | 48 hours | EC50 | 21.22 mg/l   |
| Sodium Persulphate   | 7775-27-1   | Rainbow trout    | Estimated   | 96 hours | LC50 | 76.3 mg/l    |
| Sodium Persulphate   | 7775-27-1   | Algae other      | Estimated   | 72 hours | NOEC | 32 mg/l      |
| Titanium dioxide   | 13463-67-7  | Activated sludge | Experimental  | 3 hours  | NOEC | >=1,000 mg/l |
| Titanium dioxide   | 13463-67-7  | Diatom           | Experimental  | 72 hours | EC50 | >10,000 mg/l |
| Titanium dioxide   | 13463-67-7  | Fathead minnow   | Experimental  | 96 hours | LC50 | >100 mg/l    |
| Titanium dioxide   | 13463-67-7  | Water flea       | Experimental  | 48 hours | EC50 | >100 mg/l    |
| Titanium dioxide   | 13463-67-7  | Diatom           | Experimental  | 72 hours | NOEC | 5,600 mg/l   |

**12.2. Persistence and degradability**

| Material  | CAS Number  | Test type                       | Duration | Study Type | Test result | Protocol |
|---|-------------|---------------------------------|----------|------------|-------------|----------|
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | None        | Data not available-insufficient |          |            | N/A         |          |
| 2-Propenoic   | 122334-95-6 | Data not                        |          |            | N/A         |          |

|   |            |                                 |         |                               |                                      |                                   |
|---|------------|---------------------------------|---------|-------------------------------|--------------------------------------|-----------------------------------|
| acid, 2-methyl-, 3-(trimetoxysilyl) propyl ester, hydrolysis products with silica |            | available-insufficient          |         |                               |                                      |                                   |
| Substituted pyrimidine  | 72846-00-5 | Estimated Photolysis            |         | Photolytic half-life (in air) | 1.48 days (t 1/2)                    | Non-standard method               |
| Substituted pyrimidine  | 72846-00-5 | Experimental Biodegradation     | 28 days | CO2 evolution                 | 29.1 %CO2 evolution/THC O2 evolution | OECD 301B - Modified sturm or CO2 |
| Calcium dihydroxide   | 1305-62-0  | Data not available-insufficient |         |                               | N/A                                  |                                   |
| Sodium Persulphate  | 7775-27-1  | Data not available-insufficient |         |                               | N/A                                  |                                   |
| Titanium dioxide  | 13463-67-7 | Data not available-insufficient |         |                               | N/A                                  |                                   |

**12.3 : Bioaccumulative potential**

| Material  | CAS Number  | Test type   | Duration | Study Type | Test result | Protocol            |
|---|-------------|---|----------|------------|-------------|---------------------|
| Glass powder (65997-17-3), surface modified with 2-propenoic acid, 2 methyl-.3-(trimethoxysilyl)propyl ester (2530-85-0), bulk material | None        | Data not available or insufficient for classification | N/A      | N/A        | N/A         | N/A                 |
| 2-Propenoic acid, 2-methyl-, 3-(trimetoxysilyl) propyl ester, hydrolysis products with silica   | 122334-95-6 | Data not available or insufficient for classification | N/A      | N/A        | N/A         | N/A                 |
| Substituted pyrimidine  | 72846-00-5  | Experimental Bioconcentration                         |          | Log Kow    | 2.57        | Non-standard method |
| Calcium dihydroxide   | 1305-62-0   | Data not available or insufficient for classification | N/A      | N/A        | N/A         | N/A                 |
| Sodium Persulphate  | 7775-27-1   | Data not available or insufficient for classification | N/A      | N/A        | N/A         | N/A                 |

|                  |            |                       |         |                        |     |                     |
|------------------|------------|-----------------------|---------|------------------------|-----|---------------------|
| Titanium dioxide | 13463-67-7 | Experimental BCF-Carp | 42 days | Bioaccumulation factor | 9.6 | Non-standard method |
|------------------|------------|-----------------------|---------|------------------------|-----|---------------------|

**12.4. Mobility in soil**

Please contact manufacturer for more details

**12.5 Other adverse effects**

No information available.

## SECTION 13: Disposal considerations

**13.1. Disposal methods**

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

Incinerate uncured product in a permitted waste incineration facility. Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

## SECTION 14: Transport Information

**Australian Dangerous Goods Code (ADG) - Road/Rail Transport**

**UN No.:** Not applicable.

**Proper shipping name:** Not applicable.

**Class/Division:** Not applicable.

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

**Hazchem Code:** Not applicable

**IERG:** Not applicable.

**International Air Transport Association (IATA) - Air Transport**

**UN No.:** Not applicable.

**Proper shipping name:** Not applicable.

**Class/Division:** Not applicable.

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

**International Maritime Dangerous Goods Code (IMDG)- Marine Transport**

**UN No.:** Not applicable.

**Proper shipping name:** Not applicable.

**Class/Division:** Not applicable.

**Sub Risk:** Not applicable.

**Packing Group:** Not applicable.

**Marine Pollutant:** Not applicable.

## SECTION 15: Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Australian Inventory Status:**

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](http://www.3m.com.au)**



## 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™ RELYX™ Unicem Aplicap™/Maxicap™ Liquid

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

##### Recommended use

Dental Product, For use by dental professionals.

#### 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 4.  
Serious Eye Damage/Irritation: Category 1.  
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**

Corrosion | Exclamation mark |

**Pictograms**



**Hazard statements**

H227 Combustible Liquid  
 H318 Causes serious eye damage.  
 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.  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P280A Wear eye/face protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTRE or doctor/physician.  
 P333 + P313 If skin irritation or rash occurs: 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 Store in a well-ventilated place.

**Disposal:**

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

**2.3. Other assigned/identified product hazards**

None known.

**2.4. Other hazards which do not result in classification**

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

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

This material is a mixture.

| Ingredient | CAS Nbr | % by Weight |
|------------|---------|-------------|
|------------|---------|-------------|

**3M™ RELYX™ Unicem Aplicap™/Maxicap™ Liquid**

|  |              |         |
|--|--------------|---------|
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | 1224866-76-5 | 40 - 50 |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | 109-16-0     | 20 - 35 |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy-3, 1-propanediyl) bismethacrylate    | 27689-12-9   | 20 - 30 |
| 2,6-Di-tert-butyl-p-cresol   | 128-37-0     | < 0.5   |
| Methyl Methacrylate  | 80-62-6      | < 0.5   |
| Acetic acid, copper(2+) salt, monohydrate                                      | 6046-93-1    | < 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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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**

No critical symptoms or effects. 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****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:** •3Z

**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. 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**

This product is classified as a C1 COMBUSTIBLE LIQUID. For more information please refer to AS 1940

**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 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. 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.

| <b>Ingredient</b>          | <b>CAS Nbr</b> | <b>Agency</b>  | <b>Limit type</b>  | <b>Additional comments</b>                        |
|----------------------------|----------------|----------------|--|---|
| 2,6-Di-tert-butyl-p-cresol | 128-37-0       | ACGIH          | TWA(inhalable fraction and vapour):2 mg/m3                         | A4: Not class. as human carcin                    |
| 2,6-Di-tert-butyl-p-cresol | 128-37-0       | Australia OELs | TWA(8 hours):10 mg/m3  |   |
| COPPER COMPOUNDS           | 6046-93-1      | ACGIH          | TWA(as Cu, fume):0.2 mg/m3;TWA(as Cu dust or mist):1 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 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

|  |  |
|--|--|
| <b>Physical state</b>                                    | Liquid.  |
| <b>Specific Physical Form:</b>                           | Liquid.  |
| <b>Colour</b>  | Yellow   |
| <b>Odour</b>   | Acrylate   |
| <b>Odour threshold</b>                                   | <i>No data available.</i>                          |
| <b>pH</b>  | 2.3  |
| <b>Melting point/Freezing point</b>                      | <i>No data available.</i>                          |
| <b>Boiling point/Initial boiling point/Boiling range</b> | > 93.3 °C  |
| <b>Flash point</b>                                       | 64 °C [ <i>Test Method: Tagliabue closed cup</i> ] |
| <b>Evaporation rate</b>                                  | <i>No data available.</i>                          |
| <b>Flammability (solid, gas)</b>                         | Not applicable.                                    |
| <b>Flammable Limits(LEL)</b>                             | <i>No data available.</i>                          |
| <b>Flammable Limits(UEL)</b>                             | <i>No data available.</i>                          |
| <b>Vapour pressure</b>                                   | <i>No data available.</i>                          |
| <b>Vapor Density and/or Relative Vapor Density</b>       | <i>No data available.</i>                          |
| <b>Density</b>   | 1.14 g/ml  |
| <b>Relative density</b>                                  | 1.14 [ <i>Ref Std: WATER=1</i> ]                   |
| <b>Water solubility</b>                                  | < 63 g/l   |
| <b>Solubility- non-water</b>                             | <i>No data available.</i>                          |
| <b>Partition coefficient: n-octanol/water</b>            | <i>No data available.</i>                          |
| <b>Autoignition temperature</b>                          | <i>No data available.</i>                          |
| <b>Decomposition temperature</b>                         | <i>No data available.</i>                          |
| <b>Viscosity/Kinematic Viscosity</b>                     | <i>No data available.</i>                          |

|   |                           |
|---|---------------------------|
| <b>Volatile organic compounds (VOC)</b>   | <i>No data available.</i> |
| <b>Percent volatile</b>                   | <i>No data available.</i> |
| <b>VOC less H2O &amp; exempt solvents</b> | <i>No data available.</i> |
| <b>Molecular weight</b>                   | <i>No data available.</i> |

## 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.

### 10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.5 Incompatible materials

None known.

### 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**

This product may have a characteristic odour; however, no adverse health effects are anticipated.

#### **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**

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

#### **Ingestion**

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  | Ingestion                   |                        | No data available; calculated ATE >5,000 mg/kg |
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | Dermal                      |                        | LD50 estimated to be > 5,000 mg/kg             |
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | Ingestion                   | Rat                    | LD50 > 2,000 mg/kg                             |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | Dermal                      | Professional judgement | LD50 estimated to be > 5,000 mg/kg             |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | Ingestion                   | Rat                    | LD50 10,837 mg/kg                              |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate   | Dermal                      | Professional judgement | LD50 estimated to be > 5,000 mg/kg             |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate   | Ingestion                   | Rat                    | LD50 > 17,600 mg/kg                            |
| 2,6-Di-tert-butyl-p-cresol   | Dermal                      | Rat                    | LD50 > 2,000 mg/kg                             |
| 2,6-Di-tert-butyl-p-cresol   | Ingestion                   | Rat                    | LD50 > 2,930 mg/kg                             |
| Methyl Methacrylate  | Dermal                      | Rabbit                 | LD50 > 5,000 mg/kg                             |
| Methyl Methacrylate  | Inhalation-Vapour (4 hours) | Rat                    | LC50 29 mg/l                                   |
| Methyl Methacrylate  | Ingestion                   | Rat                    | LD50 7,900 mg/kg                               |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name   | Species          | Value                     |
|--|------------------|---------------------------|
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | Rabbit           | Minimal irritation        |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | Guinea pig       | Mild irritant             |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate   | Rabbit           | No significant irritation |
| 2,6-Di-tert-butyl-p-cresol   | Human and animal | Minimal irritation        |
| Methyl Methacrylate  | Human and animal | Mild irritant             |

**Serious Eye Damage/Irritation**

| Name   | Species                | Value             |
|--|------------------------|-------------------|
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | Rabbit                 | Corrosive         |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | Professional judgement | Moderate irritant |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate   | Rabbit                 | Mild irritant     |
| 2,6-Di-tert-butyl-p-cresol   | Rabbit                 | Mild irritant     |
| Methyl Methacrylate  | Rabbit                 | Moderate irritant |

**Skin Sensitisation**

| Name                                    | Species    | Value          |
|---|------------|----------------|
| mixture of mono-, di- and tri-glycerin- | Guinea pig | Not classified |

|  |                  |                |
|--|------------------|----------------|
| dimethacrylate-ester of phosphoric acid                                      |                  |                |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                     | Human and animal | Sensitising    |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate | Guinea pig       | Not classified |
| 2,6-Di-tert-butyl-p-cresol   | Human            | Not classified |
| Methyl Methacrylate  | Human and animal | Sensitising    |

**Respiratory Sensitisation**

| Name                | Species | Value          |
|---------------------|---------|----------------|
| Methyl Methacrylate | Human   | Not classified |

**Germ Cell Mutagenicity**

| Name   | Route    | Value  |
|--|----------|--|
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | In Vitro | Not mutagenic  |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy- 3, 1-propanediyl) bismethacrylate   | In Vitro | Not mutagenic  |
| 2,6-Di-tert-butyl-p-cresol   | In Vitro | Not mutagenic  |
| 2,6-Di-tert-butyl-p-cresol   | In vivo  | Not mutagenic  |
| Methyl Methacrylate  | In vivo  | Not mutagenic  |
| Methyl Methacrylate  | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name                                     | Route      | Species                 | Value  |
|--|------------|-------------------------|--|
| 2,2'-Ethylenedioxydiethyl dimethacrylate | Dermal     | Mouse                   | Not carcinogenic   |
| 2,6-Di-tert-butyl-p-cresol               | Ingestion  | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Methyl Methacrylate                      | Ingestion  | Rat                     | Not carcinogenic   |
| Methyl Methacrylate                      | Inhalation | Human and animal        | Not carcinogenic   |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name                                     | Route      | Value                                  | Species | Test result         | Exposure Duration |
|--|------------|--|---------|---------------------|-------------------|
| 2,2'-Ethylenedioxydiethyl dimethacrylate | Ingestion  | Not classified for female reproduction | Mouse   | NOAEL 1 mg/kg/day   | 1 generation      |
| 2,2'-Ethylenedioxydiethyl dimethacrylate | Ingestion  | Not classified for male reproduction   | Mouse   | NOAEL 1 mg/kg/day   | 1 generation      |
| 2,2'-Ethylenedioxydiethyl dimethacrylate | Ingestion  | Not classified for development         | Mouse   | NOAEL 1 mg/kg/day   | 1 generation      |
| 2,6-Di-tert-butyl-p-cresol               | Ingestion  | Not classified for female reproduction | Rat     | NOAEL 500 mg/kg/day | 2 generation      |
| 2,6-Di-tert-butyl-p-cresol               | Ingestion  | Not classified for male reproduction   | Rat     | NOAEL 500 mg/kg/day | 2 generation      |
| 2,6-Di-tert-butyl-p-cresol               | Ingestion  | Not classified for development         | Rat     | NOAEL 100 mg/kg/day | 2 generation      |
| Methyl Methacrylate                      | Inhalation | Not classified for male reproduction   | Mouse   | NOAEL 36.9 mg/l     |                   |
| Methyl Methacrylate                      | Inhalation | Not classified for                     | Rat     | NOAEL 8.3           | 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     |
|---------------------|------------|------------------------|----------------------------------|---------|---------------------|-----------------------|
| Methyl Methacrylate | Inhalation | respiratory irritation | May cause respiratory irritation | Human   | NOAEL Not available | occupational exposure |

**Specific Target Organ Toxicity - repeated exposure**

| Name                                       | Route      | Target Organ(s)               | Value  | Species                 | Test result           | Exposure Duration     |
|--|------------|-------------------------------|--|-------------------------|-----------------------|-----------------------|
| 2,2'-Ethyleneedioxy diethyl dimethacrylate | Dermal     | kidney and/or bladder   blood | Not classified   | Mouse                   | NOAEL 833 mg/kg/day   | 78 weeks              |
| 2,6-Di-tert-butyl-p-cresol                 | Ingestion  | liver                         | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 250 mg/kg/day   | 28 days               |
| 2,6-Di-tert-butyl-p-cresol                 | Ingestion  | kidney and/or bladder         | Not classified   | Rat                     | NOAEL 500 mg/kg/day   | 2 generation          |
| 2,6-Di-tert-butyl-p-cresol                 | Ingestion  | blood                         | Not classified   | Rat                     | LOAEL 420 mg/kg/day   | 40 days               |
| 2,6-Di-tert-butyl-p-cresol                 | Ingestion  | endocrine system              | Not classified   | Rat                     | NOAEL 25 mg/kg/day    | 2 generation          |
| 2,6-Di-tert-butyl-p-cresol                 | Ingestion  | heart                         | Not classified   | Mouse                   | NOAEL 3,480 mg/kg/day | 10 weeks              |
| 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 |

**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    | Type                 | Exposure | Test endpoint | Test result |
|--|--------------|-------------|----------------------|----------|---------------|-------------|
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | 1224866-76-5 | Green algae | Endpoint not reached | 72 hours | EC50          | >100 mg/l   |
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | 1224866-76-5 | Water flea  | Experimental         | 48 hours | EC50          | >100 mg/l   |
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | 1224866-76-5 | Green algae | Experimental         | 72 hours | NOEC          | 56 mg/l     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | 109-16-0     | Green algae | Experimental         | 72 hours | EC50          | >100 mg/l   |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | 109-16-0     | Zebra Fish  | Experimental         | 96 hours | LC50          | 16.4 mg/l   |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | 109-16-0     | Green algae | Experimental         | 72 hours | NOEC          | 18.6 mg/l   |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | 109-16-0     | Water flea  | Experimental         | 21 days  | NOEC          | 32 mg/l     |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy-3, 1-propanediyl)                    | 27689-12-9   | Green algae | Experimental         | 72 hours | EC50          | >100 mg/l   |

**3M™ RELYX™ Unicem Aplicap™/Maxicap™ Liquid**

|   |            |                  |              |            |                                |                           |
|---|------------|------------------|--------------|------------|--------------------------------|---------------------------|
| bismethacrylate   |            |                  |              |            |                                |                           |
| (1-Methylethylidene)bis(4,1-phenyleneoxy-3,1-propanediyl) bismethacrylate | 27689-12-9 | Water flea       | Experimental | 48 hours   | EC50                           | >100 mg/l                 |
| (1-Methylethylidene)bis(4,1-phenyleneoxy-3,1-propanediyl) bismethacrylate | 27689-12-9 | Green algae      | Experimental | 72 hours   | NOEC                           | >100 mg/l                 |
| 2,6-Di-tert-butyl-p-cresol  | 128-37-0   | Activated sludge | Experimental | 3 hours    | EC50                           | >10,000 mg/l              |
| 2,6-Di-tert-butyl-p-cresol  | 128-37-0   | Green algae      | Experimental | 72 hours   | EC50                           | >0.4 mg/l                 |
| 2,6-Di-tert-butyl-p-cresol  | 128-37-0   | Water flea       | Experimental | 48 hours   | EC50                           | 0.48 mg/l                 |
| 2,6-Di-tert-butyl-p-cresol  | 128-37-0   | Zebra Fish       | Experimental | 96 hours   | No tox obs at lmt of water sol | >100 mg/l                 |
| 2,6-Di-tert-butyl-p-cresol  | 128-37-0   | Green algae      | Experimental | 72 hours   | EC10                           | 0.4 mg/l                  |
| 2,6-Di-tert-butyl-p-cresol  | 128-37-0   | Medaka           | Experimental | 42 days    | NOEC                           | 0.053 mg/l                |
| 2,6-Di-tert-butyl-p-cresol  | 128-37-0   | Water flea       | Experimental | 21 days    | NOEC                           | 0.023 mg/l                |
| Methyl Methacrylate   | 80-62-6    | Green algae      | Experimental | 72 hours   | EC50                           | >110 mg/l                 |
| 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) |
| Acetic acid, copper(2+) salt, monohydrate                                 | 6046-93-1  | Green algae      | Estimated    | 72 hours   | EC50                           | 0.33 mg/l                 |
| Acetic acid, copper(2+) salt, monohydrate                                 | 6046-93-1  | Water flea       | Estimated    | 48 hours   | EC50                           | 0.04 mg/l                 |
| Acetic acid, copper(2+) salt, monohydrate                                 | 6046-93-1  | Zebra Fish       | Estimated    | 96 hours   | LC50                           | 0.037 mg/l                |
| Acetic acid, copper(2+) salt,   | 6046-93-1  | Fathead minnow   | Estimated    | 32 days    | EC10                           | 0.019 mg/l                |

|   |           |                  |           |         |      |                               |
|---|-----------|------------------|-----------|---------|------|-------------------------------|
| monohydrate                               |           |                  |           |         |      |                               |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Green algae      | Estimated |         | NOEC | 0.069 mg/l                    |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Water flea       | Estimated | 7 days  | NOEC | 0.01 mg/l                     |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Activated sludge | Estimated |         | EC50 | 22 mg/l                       |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Barley           | Estimated | 4 days  | NOEC | 50 mg/kg (Dry Weight)         |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Bobwhite quail   | Estimated | 14 days | LD50 | 4,402 mg per kg of bodyweight |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Redworm          | Estimated | 56 days | NOEC | 31 mg/kg (Dry Weight)         |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Sediment Worm    | Estimated | 28 days | NOEC | 57.5 mg/kg (Dry Weight)       |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Soil microbes    | Estimated | 4 days  | NOEC | 38 mg/kg (Dry Weight)         |
| Acetic acid, copper(2+) salt, monohydrate | 6046-93-1 | Springtail       | Estimated | 28 days | NOEC | 87.7 mg/kg (Dry Weight)       |

## 12.2. Persistence and degradability

| Material   | CAS Number   | Test type                       | Duration | Study Type    | Test result    | Protocol                            |
|--|--------------|---------------------------------|----------|---------------|----------------|-------------------------------------|
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | 1224866-76-5 | Experimental Biodegradation     | 28 days  | BOD           | 82 %BOD/ThB OD | OECD 301F - Manometric respirometry |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | 109-16-0     | Experimental Biodegradation     | 28 days  | CO2 evolution | 85 % weight    | OECD 301B - Modified sturm or CO2   |
| (1-Methylethylidene)bis(4, 1-phenyleneoxy-3, 1-propanediyl) bismethacrylate    | 27689-12-9   | Experimental Biodegradation     | 28 days  | CO2 evolution | 7-12 % weight  | OECD 301B - Modified sturm or CO2   |
| 2,6-Di-tert-butyl-p-cresol   | 128-37-0     | Data not available-insufficient | N/A      | N/A           | N/A            | N/A                                 |
| Methyl Methacrylate  | 80-62-6      | Experimental Biodegradation     | 14 days  | BOD           | 94 %BOD/ThB OD | OECD 301C - MITI test (I)           |
| Acetic acid,   | 6046-93-1    | Analogous                       | 14 days  | BOD           | 74 %BOD/ThB    | OECD 301C - MITI                    |

|                              |  |                         |  |  |    |          |
|------------------------------|--|-------------------------|--|--|----|----------|
| copper(2+) salt, monohydrate |  | Compound Biodegradation |  |  | OD | test (I) |
|------------------------------|--|-------------------------|--|--|----|----------|

**12.3 : Bioaccumulative potential**

| Material   | CAS Number   | Test type                           | Duration | Study Type             | Test result | Protocol   |
|--|--------------|-------------------------------------|----------|------------------------|-------------|--|
| mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid | 1224866-76-5 | Experimental Bioconcentration       |          | Log Kow                | -0.2        | Non-standard method                                |
| 2,2'-Ethylenedioxydiethyl dimethacrylate                                       | 109-16-0     | Experimental Bioconcentration       |          | Log Kow                | 2.3         | Non-standard method                                |
| (1-Methylethylene)bis(4, 1-phenyleneoxy-3, 1-propanediyl) bismethacrylate      | 27689-12-9   | Estimated Bioconcentration          |          | Log Kow                | 7.61        | Estimated: Octanol-water partition coefficient     |
| 2,6-Di-tert-butyl-p-cresol   | 128-37-0     | Experimental BCF - Carp             | 56 days  | Bioaccumulation factor | 1277        | OECD 305E - Bioaccumulation flow-through fish test |
| Methyl Methacrylate  | 80-62-6      | Experimental Bioconcentration       |          | Log Kow                | 1.38        | OECD 107 log Kow shke flask mtd                    |
| Acetic acid, copper(2+) salt, monohydrate                                      | 6046-93-1    | Analogous Compound Bioconcentration |          | Log Kow                | -0.17       |  |

**12.4. Mobility in soil**

Please contact manufacturer for more details

**12.5 Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

**13.1. Disposal methods**

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

Incinerate uncured product in a permitted waste incineration facility. Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

**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. , ( Acetic Acid, Copper (2+) Salt, Monohydrate )

**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. , ( Acetic Acid, Copper (2+) Salt, Monohydrate )

**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. , ( Acetic Acid, Copper (2+) Salt, Monohydrate )

**Class/Division:** 9

**Sub Risk:** Not applicable.

**Packing Group:** III

**Marine Pollutant:** Acetic Acid, Copper (2+) Salt, Monohydrate

**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:**

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](http://www.3m.com.au)**