



## 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™ Filtek™ One Bulk Fill Restorative

#### Product Identification Numbers

|                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|
| 70-2014-0467-3 | 70-2014-0468-1 | 70-2014-0469-9 | 70-2014-0470-7 | 70-2014-0471-5 |
| 70-2014-0472-3 | 70-2014-0473-1 | 70-2014-0474-9 | 70-2014-0475-6 | 70-2014-0476-4 |
| 70-2014-0477-2 | 70-2014-0478-0 |                |                |                |

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

##### Recommended use

Dental Restorative, Restrictions on Use: For use only by dental professionals in approved indications

#### 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

Skin Sensitizer: Category 1B.

#### 2.2. Label elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

**Signal word**

Warning

**Symbols**

Exclamation mark |

**Pictograms****Hazard statements**

H317 May cause an allergic skin reaction.

**Precautionary statements****Prevention:**

P272 Contaminated work clothing should not be allowed out of the workplace.  
 P280E Wear protective gloves.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.

**Disposal:**

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

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

A similar mixture has been tested for acute oral toxicity and the test results do not meet the criteria for classification. A similar mixture has been tested for acute dermal toxicity and the test results do not meet the criteria for classification.

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

Toxic to aquatic life.  
 Harmful to aquatic life with long lasting effects.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient                           | CAS Nbr      | % by Weight |
|--------------------------------------|--------------|-------------|
| Silane Treated Ceramic               | 444758-98-9  | 60 - 70     |
| Aromatic Urethane Dimethacrylate     | 1431303-59-1 | 10 - 20     |
| 1,12-Dodecane Dimethacrylate (DDDMA) | 72829-09-5   | < 10        |
| Diurethane Dimethacrylate (UDMA)     | 72869-86-4   | 1 - 10      |
| Silane Treated Silica                | 248596-91-0  | 1 - 10      |
| Ytterbium Fluoride (YbF3)            | 13760-80-0   | 1 - 10      |
| Silane Treated Zirconia              | None         | < 5         |
| Water                                | 7732-18-5    | < 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

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

#### If swallowed

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

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

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

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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

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

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

None inherent in this product.

### Hazardous Decomposition or By-Products

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

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

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**

Avoid breathing of dust created by cutting, sanding, grinding or machining. 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. 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 away from heat. Store away from oxidising agents.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limits**

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

**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>                           | Paste                     |
| <b>Colour</b>  | White                     |
| <b>Odour</b>   | Slight Acrylate           |
| <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>    |

|   |                           |
|---|---------------------------|
| Flash point                                 | No flash point            |
| Evaporation rate                            | <i>No data available.</i> |
| Flammability (solid, gas)                   | Not classified            |
| Flammable Limits(LEL)                       | <i>Not applicable.</i>    |
| Flammable Limits(UEL)                       | <i>Not applicable.</i>    |
| Vapour pressure                             | <i>Not applicable.</i>    |
| Vapor Density and/or Relative Vapor Density | <i>Not applicable.</i>    |
| Density                                     | 1.9 g/cm <sup>3</sup>     |
| Relative density                            | 1.9 [Ref.Std:WATER=1]     |
| Water solubility                            | Negligible                |
| Solubility- non-water                       | <i>No data available.</i> |
| Partition coefficient: n-octanol/water      | <i>No data available.</i> |
| Autoignition temperature                    | <i>No data available.</i> |
| Decomposition temperature                   | <i>No data available.</i> |
| Viscosity/Kinematic Viscosity               | <i>No data available.</i> |
| Volatile organic compounds (VOC)            |                           |
| Percent volatile                            |                           |
| VOC less H <sub>2</sub> O & exempt solvents |                           |
| Molecular weight                            | <i>Not applicable.</i>    |

**Nanoparticles**

This material contains nanoparticles.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

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

**10.2 Chemical stability**

Stable.

**10.3. Conditions to avoid**

Heat.

**10.4. Possibility of hazardous reactions**

Hazardous polymerisation will not occur.

**10.5 Incompatible materials**

Strong oxidising agents.

**10.6 Hazardous decomposition products****Substance**

None known.

**Condition****SECTION 11: Toxicological information**

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

**11.1 Information on Toxicological effects**

## Signs and Symptoms of Exposure

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

### Inhalation

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

### Skin contact

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

Contact with the eyes during product use is not expected to result in significant irritation.

### 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                      | Dermal    | Professional judgement | LD50 Not applicable                      |
| Overall product                      | Ingestion | Rat                    | LD50 > 2,000 mg/kg                       |
| Silane Treated Ceramic               | Dermal    |                        | LD50 estimated to be > 5,000 mg/kg       |
| Silane Treated Ceramic               | Ingestion |                        | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Aromatic Urethane Dimethacrylate     | Dermal    | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Aromatic Urethane Dimethacrylate     | Ingestion | Rat                    | LD50 > 2,000 mg/kg                       |
| Silane Treated Zirconia              | Dermal    |                        | LD50 estimated to be > 5,000 mg/kg       |
| Silane Treated Zirconia              | Ingestion |                        | LD50 estimated to be 2,000 - 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                       |
| Ytterbium Fluoride (YbF3)            | Dermal    | Professional judgement | LD50 estimated to be > 5,000 mg/kg       |
| Ytterbium Fluoride (YbF3)            | Ingestion | Rat                    | LD50 > 5,000 mg/kg                       |
| 1,12-Dodecane Dimethacrylate (DDDMA) | Dermal    | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| 1,12-Dodecane Dimethacrylate (DDDMA) | Ingestion | similar compounds      | LD50 2000-5000 mg/kg                     |
| Silane Treated Silica                | Dermal    |                        | LD50 estimated to be > 5,000 mg/kg       |
| Silane Treated Silica                | Ingestion |                        | LD50 estimated to be > 5,000 mg/kg       |

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

| Name                             | Species                | Value                     |
|----------------------------------|------------------------|---------------------------|
| Silane Treated Ceramic           | similar compounds      | No significant irritation |
| Aromatic Urethane Dimethacrylate | In vitro data          | No significant irritation |
| Silane Treated Zirconia          | Rabbit                 | No significant irritation |
| Silane Treated Silica            | Professional judgement | No significant irritation |

**Serious Eye Damage/Irritation**

| Name                             | Species                | Value                     |
|----------------------------------|------------------------|---------------------------|
| Silane Treated Ceramic           | similar compounds      | Mild irritant             |
| Aromatic Urethane Dimethacrylate | In vitro data          | No significant irritation |
| Silane Treated Zirconia          | Rabbit                 | Mild irritant             |
| Ytterbium Fluoride (YbF3)        | Professional judgement | Mild irritant             |
| Silane Treated Silica            | Professional judgement | No significant irritation |

**Skin Sensitisation**

| Name                             | Species           | Value          |
|----------------------------------|-------------------|----------------|
| Silane Treated Ceramic           | similar compounds | 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  |
|----------------------------------|----------|--|
| Aromatic Urethane Dimethacrylate | In Vitro | Not mutagenic  |
| Silane Treated Zirconia          | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name                    | Route      | Species                 | Value  |
|-------------------------|------------|-------------------------|--|
| Silane Treated Ceramic  | Inhalation | similar compounds       | Some positive data exist, but the data are not sufficient for classification |
| Silane Treated Zirconia | Inhalation | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

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

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

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

**Specific Target Organ Toxicity - repeated exposure**

| Name                    | Route      | Target Organ(s)    | Value          | Species                 | Test result         | Exposure Duration     |
|-------------------------|------------|--------------------|----------------|-------------------------|---------------------|-----------------------|
| Silane Treated Ceramic  | Inhalation | pulmonary fibrosis | Not classified | similar compounds       | NOAEL Not available |                       |
| Silane Treated Zirconia | Inhalation | pulmonary fibrosis | Not classified | Multiple animal species | NOAEL Not available |                       |
| Silane Treated Zirconia | 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 3: Harmful to aquatic life with long lasting effects.

No product test data available.

| Material                             | CAS Number   | Organism    | Type  | Exposure | Test endpoint | Test result |
|--------------------------------------|--------------|-------------|---|----------|---------------|-------------|
| Silane Treated Ceramic               | 444758-98-9  |             | Data not available or insufficient for classification |          |               | N/A         |
| Aromatic Urethane Dimethacrylate     | 1431303-59-1 |             | Data not available or insufficient for classification |          |               | N/A         |
| 1,12-Dodecane Dimethacrylate (DDDMA) | 72829-09-5   | Green Algae | Experimental  | 72 hours | EC50          | 17 ug/l     |
| 1,12-Dodecane Dimethacrylate (DDDMA) | 72829-09-5   | Water flea  | Experimental  | 48 hours | EC50          | >100 mg/l   |
| 1,12-Dodecane Dimethacrylate (DDDMA) | 72829-09-5   | Green Algae | Experimental  | 72 hours | EC10          | 6.4 ug/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   |
| Silane Treated Silica                | 248596-91-0  |             | Data not available or                                 |          |               | N/A         |

|                           |            |            |   |          |                                |           |
|---------------------------|------------|------------|---|----------|--------------------------------|-----------|
|                           |            |            | insufficient for classification                       |          |                                |           |
| Ytterbium Fluoride (YbF3) | 13760-80-0 | Water flea | Experimental  | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| Silane Treated Zirconia   | None       |            | Data not available or insufficient for classification |          |                                | N/A       |

**12.2. Persistence and degradability**

| Material                             | CAS Number   | Test type                       | Duration | Study Type    | Test result  | Protocol                          |
|--------------------------------------|--------------|---------------------------------|----------|---------------|--|-----------------------------------|
| Silane Treated Ceramic               | 444758-98-9  | Data not available-insufficient |          |               | N/A  |                                   |
| Aromatic Urethane Dimethacrylate     | 1431303-59-1 | Data not available-insufficient |          |               | N/A  |                                   |
| 1,12-Dodecane Dimethacrylate (DDDMA) | 72829-09-5   | Experimental Biodegradation     | 28 days  | CO2 evolution | 97.3 %CO2 evolution/THC O2 evolution                             | OECD 301B - Modified sturm or CO2 |
| 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 |
| Silane Treated Silica                | 248596-91-0  | Data not available-insufficient |          |               | N/A  |                                   |
| Ytterbium Fluoride (YbF3)            | 13760-80-0   | Data not available-insufficient |          |               | N/A  |                                   |
| Silane Treated Zirconia              | None         | Data not available-insufficient |          |               | N/A  |                                   |

**12.3 : Bioaccumulative potential**

| Material                             | CAS Number   | Test type   | Duration | Study Type             | Test result | Protocol                           |
|--------------------------------------|--------------|---|----------|------------------------|-------------|------------------------------------|
| Silane Treated Ceramic               | 444758-98-9  | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                                |
| Aromatic Urethane Dimethacrylate     | 1431303-59-1 | Data not available or insufficient for classification | N/A      | N/A                    | N/A         | N/A                                |
| 1,12-Dodecane Dimethacrylate (DDDMA) | 72829-09-5   | Estimated Bioconcentration                            |          | Bioaccumulation factor | 6.6         | Estimated: Bioconcentration factor |
| Diurethane Dimethacrylate (UDMA)     | 72869-86-4   | Experimental Bioconcentration                         |          | Log Kow                | 3.39        | Non-standard method                |

|                           |             |   |     |     |     |     |
|---------------------------|-------------|---|-----|-----|-----|-----|
| Silane Treated Silica     | 248596-91-0 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Ytterbium Fluoride (YbF3) | 13760-80-0  | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Silane Treated Zirconia   | None        | 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.

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. 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)**