



## Safety Data Sheet

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**Document Group:** 41-6324-2  
**Issue Date:** 08/19/24

**Version Number:** 3.01  
**Supersedes Date:** 08/01/24

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Filtek™ Bulk Fill Posterior Restorative

#### Product Identification Numbers

70-2014-0959-9, 70-2014-0960-7, 70-2014-0961-5, 70-2014-0962-3, 70-2014-0963-1, 70-2014-0964-9, 70-2014-0965-6, 70-2014-0966-4, 70-2014-0967-2, 70-2014-0968-0, 70-2014-0969-8, 70-2014-0970-6  
7100232171, 7100232173, 7100232123, 7100232132, 7100232127, 7100232104, 7100232128, 7100232102, 7100232105, 7100232130, 7100232107, 7100232131

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

##### Recommended use

Dental Product, Dental Restorative

#### 1.3. Supplier's details

**MANUFACTURER:** 3M  
**DIVISION:** Dental Solutions  
**ADDRESS:** 3M Center, St. Paul, MN 55144-1000, USA  
**Telephone:** 1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

#### 2.1. Hazard classification

Skin Sensitizer: Category 1B.

Reproductive Toxicity: Category 1B.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Exclamation mark | Health Hazard |

### Pictograms



### Hazard Statements

May cause an allergic skin reaction.  
May damage fertility or the unborn child.

### Precautionary Statements

#### Prevention:

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing dust.  
Wear protective gloves.  
Contaminated work clothing must not be allowed out of the workplace.

#### Response:

IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
IF exposed or concerned: Get medical advice/attention.

#### Disposal:

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

100% of the mixture consists of ingredients of unknown acute oral toxicity.  
100% of the mixture consists of ingredients of unknown acute dermal toxicity.

## SECTION 3: Composition/information on ingredients

| Ingredient                             | C.A.S. No.   | % by Wt                |
|--|--------------|------------------------|
| Silane Treated Ceramic                 | 444758-98-9  | 60 - 70 Trade Secret * |
| Aromatic Urethane Dimethacrylate       | 1431303-59-1 | 10 - 20 Trade Secret * |
| Diurethane Dimethacrylate (UDMA)       | 72869-86-4   | 1 - 10 Trade Secret *  |
| Silane Treated Silica                  | 248596-91-0  | 1 - 10 Trade Secret *  |
| Ytterbium Fluoride (YbF3)              | 13760-80-0   | 1 - 10 Trade Secret *  |
| Water                                  | 7732-18-5    | < 5 Trade Secret *     |
| Silane Treated Zirconia                | None         | < 5 Trade Secret *     |
| 1,12-Dodecane Dimethacrylate (DDDMA)   | 72829-09-5   | < 2.5 Trade Secret *   |
| ETHYL 4-DIMETHYL AMINOBENZOATE (EDMAB) | 10287-53-3   | < 0.3 Trade Secret *   |

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## 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****Substance**

Carbon monoxide

Carbon dioxide

**Condition**

During Combustion

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 handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/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 oxidizing agents (eg. chlorine, chromic acid etc.) Do not get in eyes. Use personal protective equipment (gloves, respirators, etc.) as required.

## 7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from oxidizing 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 SDS.

## 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

#### 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

### Appearance

Physical state

Solid

Color

White

Specific Physical Form:

Paste

Odor

Slight Acrylate

Odor threshold

No Data Available

pH

Not Applicable

Melting point

No Data Available

Boiling Point

Not Applicable

Flash Point

No flash point

Evaporation rate

No Data Available

Flammability (solid, gas)

Not Classified

Flammable Limits(LEL)

Not Applicable

|   |                          |
|---|--------------------------|
| Flammable Limits(UEL)                   | <i>Not Applicable</i>    |
| Vapor Pressure                          | <i>Not Applicable</i>    |
| Vapor Density                           | <i>Not Applicable</i>    |
| Density                                 | 1.9 g/cm3                |
| Specific Gravity                        | 1.9 [Ref Std: WATER=1]   |
| Solubility in Water                     | 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                               | <i>No Data Available</i> |
| Molecular weight                        | <i>Not Applicable</i>    |

## 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. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
|------------------|------------------|

|             |  |
|-------------|--|
| None known. |  |
|-------------|--|

Refer to section 5.2 for hazardous decomposition products during combustion.

## 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 labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

### 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 diarrhea.

May cause additional health effects (see below).

**Additional Health Effects:**

**Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

**Toxicological Data**

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

**Acute Toxicity**

| Name                                    | Route     | Species                | Value                                    |
|---|-----------|------------------------|--|
| Overall product                         | Dermal    | 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    | Rat                    | LD50 > 2,000 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    | similar compounds      | LD50 > 2,000 mg/kg                       |
| 1,12-Dodecane Dimethacrylate (DDDMA)    | Ingestion | similar compounds      | LD50 > 2,000 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       |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Dermal    | Rat                    | LD50 > 2,000 mg/kg                       |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Ingestion | Rat                    | LD50 > 2,000 mg/kg                       |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                                    | Species                | Value                     |
|---|------------------------|---------------------------|
| Silane Treated Ceramic                  | similar compounds      | No significant irritation |
| Aromatic Urethane Dimethacrylate        | In vitro data          | No significant irritation |
| Silane Treated Zirconia                 | Rabbit                 | No significant irritation |
| Diurethane Dimethacrylate (UDMA)        | Rabbit                 | No significant irritation |
| 1,12-Dodecane Dimethacrylate (DDDMA)    | similar compounds      | No significant irritation |
| Silane Treated Silica                   | Professional judgement | No significant irritation |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Rabbit                 | 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             |
| Diurethane Dimethacrylate (UDMA)        | Rabbit                 | No significant irritation |
| Ytterbium Fluoride (YbF3)               | Professional judgement | Mild irritant             |
| 1,12-Dodecane Dimethacrylate (DDDMA)    | similar compounds      | Mild irritant             |
| Silane Treated Silica                   | Professional judgement | No significant irritation |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Rabbit                 | No significant irritation |

**Skin Sensitization**

| Name                                    | Species                 | Value          |
|---|-------------------------|----------------|
| Silane Treated Ceramic                  | similar compounds       | Not classified |
| Aromatic Urethane Dimethacrylate        | Professional judgement  | Sensitizing    |
| Diurethane Dimethacrylate (UDMA)        | Multiple animal species | Sensitizing    |
| 1,12-Dodecane Dimethacrylate (DDDMA)    | similar compounds       | Sensitizing    |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) |                         | Not classified |

**Respiratory Sensitization**

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 |
| Diurethane Dimethacrylate (UDMA)        | In Vitro | Not mutagenic  |
| 1,12-Dodecane Dimethacrylate (DDDMA)    | In Vitro | Not mutagenic  |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | In vivo  | Not mutagenic  |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | 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

| Name                                    | Route     | Value                                  | Species | Test Result           | Exposure Duration        |
|---|-----------|--|---------|-----------------------|--------------------------|
| Diurethane Dimethacrylate (UDMA)        | Ingestion | Not classified for female reproduction | Rat     | NOAEL 1,000 mg/kg/day | premating into lactation |
| Diurethane Dimethacrylate (UDMA)        | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 1,000 mg/kg/day | 56 days                  |
| Diurethane Dimethacrylate (UDMA)        | Ingestion | Not classified for development         | Rat     | NOAEL 1,000 mg/kg/day | premating into lactation |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Ingestion | Not classified for female reproduction | Rat     | NOAEL 600 mg/kg/day   | premating into lactation |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Ingestion | Not classified for development         | Rat     | NOAEL 50 mg/kg/day    | premating into lactation |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Ingestion | Toxic to male reproduction             | Rat     | NOAEL 50 mg/kg/day    | 53 days                  |

### 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 |
| Diurethane Dimethacrylate (UDMA) | Ingestion  | liver   kidney and/or bladder   heart   skin   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   eyes   respiratory | Not classified | Rat                     | NOAEL 1,000 mg/kg/day | 56 days               |



|   |           |  |  |     |                     |         |
|---|-----------|--|--|-----|---------------------|---------|
|   |           | system   vascular system   |  |     |                     |         |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Ingestion | hematopoietic system   | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 74 mg/kg/day  | 28 days |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB) | Ingestion | liver   heart   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system | Not classified   | Rat | NOAEL 900 mg/kg/day | 28 days |

**Aspiration Hazard**

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

**SECTION 12: Ecological information****Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

**Chemical fate information**

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

**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.

**EPA Hazardous Waste Number (RCRA):** Not regulated

**SECTION 14: Transport Information**

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

**SECTION 15: Regulatory information****15.1. US Federal Regulations**

Contact 3M for more information.

**EPCRA 311/312 Hazard Classifications:**

**Physical Hazards**

Not applicable

**Health Hazards**

Reproductive toxicity

Respiratory or Skin Sensitization

**Additional TSCA Information**

| <b>Components</b>     | <b>CAS No</b> | <b>Additional Information</b>     |
|-----------------------|---------------|-----------------------------------|
| Silane Treated Silica | 248596-91-0   | Allowed use(s): Coating additive. |

**15.2. State Regulations**

Contact 3M for more information.

**15.3. Chemical Inventories**

This material contains one or more substances not listed on the TSCA Inventory. Commercial use of this material is regulated by the FDA.

Contact 3M for more information.

**15.4. International Regulations**

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

**SECTION 16: Other information****NFPA Hazard Classification****Health:** 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 41-6324-2 | <b>Version Number:</b>  | 3.01     |
| <b>Issue Date:</b>     | 08/19/24  | <b>Supersedes Date:</b> | 08/01/24 |

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