

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

075018197

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

075018163 075018171 075018189



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ ESPE™ FILTEK™ P60 POSTERIOR RESTORATIVE PASTE

**MANUFACTURER:** 3M

**DIVISION:** 3M ESPE Dental Products

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE:** 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 12/27/11

**Supersedes Date:** 05/05/09

**Document Group:** 08-7419-8

#### Product Use:

Intended Use: Dental Product  
Limitations on Use: For use only by dental professionals  
Specific Use: Dental restorative

### SECTION 2: INGREDIENTS

| <u>Ingredient</u>  | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|--|-------------------|----------------|
| SILANE TREATED CERAMIC   | 444758-98-9       | 75 - 85        |
| BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE (BISEMA6) | 41637-38-1        | 1 - 10         |
| DIURETHANE DIMETHACRYLATE (UDMA)                                 | 72869-86-4        | 1 - 10         |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)             | 1565-94-2         | 1 - 10         |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)                       | 109-16-0          | < 5            |

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Paste

**Odor, Color, Grade:** Slight acrylate odor, various shades

**General Physical Form:** Solid

**Immediate health, physical, and environmental hazards:** May cause allergic skin reaction. 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.

## 3.2 POTENTIAL HEALTH EFFECTS

### Eye Contact:

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

### Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

### Inhalation:

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

### Ingestion:

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

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** No need for first aid is anticipated.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

|                          |                   |
|--------------------------|-------------------|
| Autoignition temperature | No Data Available |
| Flash Point              | No flash point    |
| Flammable Limits(LEL)    | No Data Available |
| Flammable Limits(UEL)    | No Data Available |

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** No unusual fire or explosion hazards are anticipated.

**Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.**

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air.

### 6.2. Environmental precautions

Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Collect as much of the spilled material as possible. Clean up residue.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## SECTION 7: HANDLING AND STORAGE

### 7.1 HANDLING

Avoid eye contact. Avoid skin contact. 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. Wash hands after handling and before eating.

### 7.2 STORAGE

Store in a cool, dry place.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Not applicable.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Safety Glasses with side shields

.

#### 8.2.2 Skin Protection

Avoid skin contact. See Section 7.1 for additional information on skin protection.

#### 8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

#### 8.2.4 Prevention of Swallowing

Do not ingest. Wash hands after handling and before eating.

### 8.3 EXPOSURE GUIDELINES

None Established

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

|   |                                      |
|---|--------------------------------------|
| <b>Specific Physical Form:</b>            | Paste                                |
| <b>Odor, Color, Grade:</b>                | Slight acrylate odor, various shades |
| <b>General Physical Form:</b>             | Solid                                |
| <b>Autoignition temperature</b>           | <i>No Data Available</i>             |
| <b>Flash Point</b>                        | No flash point                       |
| <b>Flammable Limits(LEL)</b>              | <i>No Data Available</i>             |
| <b>Flammable Limits(UEL)</b>              | <i>No Data Available</i>             |
| <b>Boiling Point</b>                      | <i>Not Applicable</i>                |
| <b>Density</b>                            | 2.1 g/cm3                            |
| <b>Vapor Density</b>                      | <i>Not Applicable</i>                |
| <b>Vapor Pressure</b>                     | <i>Not Applicable</i>                |
| <b>Specific Gravity</b>                   | 2.1 [Ref Std: WATER=1]               |
| <b>pH</b>                                 | <i>Not Applicable</i>                |
| <b>Melting point</b>                      | <i>No Data Available</i>             |
| <b>Solubility in Water</b>                | Negligible                           |
| <b>Evaporation rate</b>                   | <i>Not Applicable</i>                |
| <b>Volatile Organic Compounds</b>         | <i>No Data Available</i>             |
| <b>Kow - Oct/Water partition coef</b>     | <i>Not Applicable</i>                |
| <b>Percent volatile</b>                   | <i>No Data Available</i>             |
| <b>VOC Less H2O &amp; Exempt Solvents</b> | <i>No Data Available</i>             |
| <b>Viscosity</b>                          | Approximately 300000 centipoise      |

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:**

**10.1 Conditions to avoid**

None known

**10.2 Materials to avoid**

None known

**Hazardous Polymerization:** Hazardous polymerization will not occur.

### Hazardous Decomposition or By-Products

**Substance**

Carbon monoxide  
Carbon dioxide

**Condition**

During Combustion  
During Combustion

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of waste product in a sanitary landfill. Incinerate in an industrial or commercial facility in the presence of a combustible material. As a disposal alternative, incinerate in an industrial or commercial facility. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste.

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

Since regulations vary, consult applicable regulations or authorities before disposal.

## SECTION 14: TRANSPORT INFORMATION

### ID Number(s):

70-2010-2550-2, 70-2010-2551-0, 70-2010-2552-8, 70-2010-2580-9, 70-2010-2581-7, 70-2010-2582-5, 70-2010-2605-4, 70-2010-2606-2, 70-2010-2607-0, 70-2010-5197-9, 70-2010-5198-7, 70-2010-5199-5, 70-2010-8787-4, 70-2010-8788-2, 70-2010-8789-0

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

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

### 311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

### STATE REGULATIONS

Contact 3M for more information.

### 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.

## INTERNATIONAL REGULATIONS

Contact 3M for more information.

**This MSDS 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 **Reactivity:** 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.

### Revision Changes:

Section 1: Product use information was modified.  
Section 16: Disclaimer (second paragraph) was modified.  
Section 7: Storage information was modified.  
Section 10: Hazardous decomposition or by-products table was modified.  
Section 13: Waste disposal method information was modified.  
Section 8: Eye/face protection information was modified.  
Section 14: Transportation legal text was modified.  
Section 9: Density information was modified.  
Section 9: Vapor density value was modified.  
Section 9: Vapor pressure value was modified.  
Section 9: Boiling point information was modified.  
Section 5: Flammable limits (UE) information was modified.  
Section 5: Flammable limits (LEL) information was modified.  
Section 5: Autoignition temperature information was modified.  
Section 5: Flash point information was modified.  
Section 9: Property description for optional properties was modified.  
Section 9: Specific gravity information was modified.  
Section 9: pH information was modified.  
Section 9: Melting point information was modified.  
Section 9: Solubility in water text was modified.  
Section 9: Flash point information was modified.  
Section 9: Flammable limits (LEL) information was modified.  
Section 9: Flammable limits (UEL) information was modified.  
Section 9: Autoignition temperature information was modified.  
Section 14: ID Number(s) Template 1 was modified.  
Section 2: Ingredient table was modified.  
Section 6: 6.2. Environmental precautions heading was added.  
Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading was added.  
Section 10.1 Conditions to avoid heading was added.  
Section 10.2 Materials to avoid heading was added.  
Section 16: Web address was added.  
Section 6: Personal precautions information was added.  
Section 6: Environmental procedures information was added.  
Section 6: Methods for cleaning up information was added.  
Section 10: Materials to avoid physical property was added.  
Section 10: Conditions to avoid physical property was added.

Section 1: Address was added.  
Copyright was added.  
Company logo was added.  
Section 6: Clean-up methods heading was added.  
Telephone header was added.  
Company Telephone was added.  
Section 1: Emergency phone information was added.  
Section 1: Emergency phone information was deleted.  
Company Logo was deleted.  
Copyright was deleted.  
Section 16: Web address heading was deleted.  
Section 6: Release measures information was deleted.  
Section 6: Release measures heading was deleted.  
Section 10: Materials and conditions to avoid physical property was deleted.  
Section 1: Address line 1 was deleted.  
Section 1: Address line 2 was deleted.

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 08-7419-8 | <b>Version Number:</b>  | 13.02    |
| <b>Issue Date:</b>     | 02/06/18  | <b>Supersedes Date:</b> | 12/28/17 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ FILTEK™ P60 POSTERIOR RESTORATIVE PASTE

#### Product Identification Numbers

70-2010-2550-2, 70-2010-2551-0, 70-2010-2552-8, 70-2010-2580-9, 70-2010-2581-7, 70-2010-2582-5, 70-2010-2605-4, 70-2010-2606-2, 70-2010-2607-0, 70-2010-5197-9, 70-2010-5198-7, 70-2010-5199-5, 70-2010-8787-4, 70-2010-8788-2, 70-2010-8789-0, 70-2014-1110-8, 70-2014-1111-6, 70-2014-1112-4

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

##### Recommended use

Dental Product, Restorative

##### Restrictions on use

For use only by dental professionals

#### 1.3. Supplier's details

|                      |   |
|----------------------|---|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Oral Care Solutions Division            |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 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.

#### 2.2. Label elements

##### Signal word

Warning

**Symbols**

Exclamation mark |

**Pictograms****Hazard Statements**

May cause an allergic skin reaction.

**Precautionary Statements****Prevention:**

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.

**Disposal:**

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

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

| Ingredient   | C.A.S. No.  | % by Wt                |
|--|-------------|------------------------|
| SILANE TREATED CERAMIC   | 444758-98-9 | 75 - 85 Trade Secret * |
| BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE (BISEMA6) | 41637-38-1  | 1 - 10 Trade Secret *  |
| DIURETHANE DIMETHACRYLATE (UDMA)                                 | 72869-86-4  | 1 - 10 Trade Secret *  |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)             | 1565-94-2   | 1 - 10 Trade Secret *  |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)                       | 109-16-0    | < 5 Trade Secret *     |
| ALUMINUM OXIDE   | 1344-28-1   | < 5 Trade Secret *     |
| BENZOTRIAZOL   | 96478-09-0  | < 0.5 Trade Secret *   |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB)                          | 10287-53-3  | < 0.5 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**

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**

Carbon monoxide

Carbon dioxide

**Condition**

During Combustion

During Combustion

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

No special protective actions for fire-fighters are anticipated.

**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**

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 get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash

thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

## 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                    | C.A.S. No. | Agency | Limit type  | Additional Comments            |
|-------------------------------|------------|--------|---|--------------------------------|
| Aluminum, insoluble compounds | 1344-28-1  | ACGIH  | TWA(respirable fraction):1 mg/m <sup>3</sup>  | A4: Not class. as human carcin |
| ALUMINUM OXIDE                | 1344-28-1  | OSHA   | TWA(as total dust):15 mg/m <sup>3</sup> ;TWA(respirable fraction):5 mg/m <sup>3</sup> |                                |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### 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

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                         |                                      |
|-------------------------|--------------------------------------|
| General Physical Form:  | Solid                                |
| Specific Physical Form: | Paste                                |
| Odor, Color, Grade:     | Slight acrylate odor, various shades |
| Odor threshold          | No Data Available                    |
| pH                      | Not Applicable                       |

|   |                                  |
|---|----------------------------------|
| Melting point                               | No Data Available                |
| Boiling Point                               | Not Applicable                   |
| Flash Point                                 | No flash point                   |
| Evaporation rate                            | Not Applicable                   |
| Flammability (solid, gas)                   | Not Classified                   |
| Flammable Limits(LEL)                       | No Data Available                |
| Flammable Limits(UEL)                       | No Data Available                |
| Vapor Pressure                              | Not Applicable                   |
| Vapor Density                               | Not Applicable                   |
| Density                                     | 2.1 g/cm <sup>3</sup>            |
| Specific Gravity                            | 2.1 [Ref Std: WATER=1]           |
| Solubility in Water                         | Negligible                       |
| Solubility- non-water                       | No Data Available                |
| Partition coefficient: n-octanol/ water     | Not Applicable                   |
| Autoignition temperature                    | No Data Available                |
| Decomposition temperature                   | No Data Available                |
| Viscosity                                   | Approximately 300,000 centipoise |
| Molecular weight                            | No Data Available                |
| Volatile Organic Compounds                  | No Data Available                |
| Percent volatile                            | No Data Available                |
| VOC Less H <sub>2</sub> O & Exempt Solvents | No Data Available                |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

#### Substance

#### Condition

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.

The information below represents toxicological information associated with the individual components of the uncured product. Once properly mixed and/or cured, the product is safe for its intended use.

### 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 odor; however, no adverse health effects are anticipated.

##### 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:

May be harmful if swallowed.

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

#### 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 ATE2,000 - 5,000 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             |
| BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE (BISMA6) | Dermal    | Professional judgment | LD50 estimated to be > 5,000 mg/kg                   |
| DIURETHANE DIMETHACRYLATE (UDMA)                                | Dermal    | Professional judgment | LD50 estimated to be > 5,000 mg/kg                   |
| BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE (BISMA6) | Ingestion | Rat                   | LD50 > 2,000 mg/kg                                   |
| DIURETHANE DIMETHACRYLATE (UDMA)                                | Ingestion | Rat                   | LD50 > 5,000 mg/kg                                   |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)            | Ingestion |                       | LD50 estimated to be 2,000 - 5,000 mg/kg             |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)            | Dermal    | Professional judgment | LD50 estimated to be 2,000 - 5,000 mg/kg             |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)                      | Dermal    | Professional judgment | LD50 estimated to be > 5,000 mg/kg                   |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)                      | Ingestion | Rat                   | LD50 10,837 mg/kg                                    |
| ALUMINUM OXIDE  | Dermal    |                       | LD50 estimated to be > 5,000 mg/kg                   |

|   |                                |     |                    |
|---|--------------------------------|-----|--------------------|
| ALUMINUM OXIDE                          | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.3 mg/l    |
| ALUMINUM OXIDE                          | Ingestion                      | Rat | LD50 > 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 |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) | Not available     | Minimal irritation        |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)           | Guinea pig        | Mild irritant             |
| ALUMINUM OXIDE                                       | Rabbit            | 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             |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) | Not available          | Moderate irritant         |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)           | Professional judgement | Moderate irritant         |
| ALUMINUM OXIDE                                       | Rabbit                 | No significant irritation |
| ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB)              | Rabbit                 | Mild irritant             |

### Skin Sensitization

| Name   | Species           | Value          |
|--|-------------------|----------------|
| SILANE TREATED CERAMIC   | similar compounds | Not classified |
| BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE (BISEMA6) | Guinea pig        | Not classified |
| DIURETHANE DIMETHACRYLATE (UDMA)                                 | Guinea pig        | Sensitizing    |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)             | Guinea pig        | Sensitizing    |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)                       | Human and animal  | Sensitizing    |

### 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  |
|--|----------|--|
| BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE (BISEMA6) | In Vitro | Not mutagenic  |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)             | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)                       | In Vitro | Some positive data exist, but the data are not sufficient for classification |

|                |          |               |
|----------------|----------|---------------|
| ALUMINUM OXIDE | In Vitro | Not mutagenic |
|----------------|----------|---------------|

**Carcinogenicity**

| Name                                       | Route      | Species           | Value  |
|--|------------|-------------------|--|
| SILANE TREATED CERAMIC                     | Inhalation | similar compounds | Some positive data exist, but the data are not sufficient for classification |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA) | Dermal     | Mouse             | Not carcinogenic   |
| ALUMINUM OXIDE                             | Inhalation | Rat               | Not carcinogenic   |

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

| Name   | Route     | Value                                  | Species | Test Result         | Exposure Duration            |
|--|-----------|--|---------|---------------------|------------------------------|
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) | Ingestion | Not classified for female reproduction | Mouse   | NOAEL 0.8 mg/kg/day | premating & during gestation |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) | Ingestion | Not classified for male reproduction   | Mouse   | NOAEL 0.8 mg/kg/day | premating & during gestation |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) | Ingestion | Not classified for development         | Mouse   | NOAEL 0.8 mg/kg/day | premating & during gestation |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)           | Ingestion | Not classified for female reproduction | Mouse   | NOAEL 1 mg/kg/day   | 1 generation                 |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)           | Ingestion | Not classified for male reproduction   | Mouse   | NOAEL 1 mg/kg/day   | 1 generation                 |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)           | Ingestion | Not classified for development         | Mouse   | NOAEL 1 mg/kg/day   | 1 generation                 |

**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 |                              |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) | Ingestion  | endocrine system   liver   nervous system   kidney and/or bladder | Not classified   | Mouse             | NOAEL 0.8 mg/kg/day | premating & during gestation |
| TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)           | Dermal     | kidney and/or bladder   blood                                     | Not classified   | Mouse             | NOAEL 833 mg/kg/day | 78 weeks                     |
| ALUMINUM OXIDE                                       | Inhalation | pneumoconiosis  | Some positive data exist, but the data are not sufficient for classification | Human             | NOAEL Not available | occupational exposure        |
| ALUMINUM OXIDE                                       | 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.

**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.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility.

**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

Respiratory or Skin Sensitization

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

| <u><b>Ingredient</b></u>                                | <u><b>C.A.S. No</b></u> | <u><b>% by Wt</b></u> |
|---|-------------------------|-----------------------|
| ALUMINUM OXIDE  | 1344-28-1               | Trade Secret < 5      |
| ALUMINUM OXIDE (ALUMINUM OXIDE<br>(FIBROUS FORMS ONLY)) | 1344-28-1               | < 5                   |

### 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.

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