This SDS packet was issued with item:
075023239

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

075022603 075022611 075022629 075022645 075022652 075022660 075022678 075022686 075022694
075022702 075022710 075022728 075022736 075022751 075022769 075022777 075022785 075022918 075022926
075022934 075022942 075022959 075022967 075022975 075022991 075023007 075023015 075023031 075023049
075023056 075023064 075023072 075023221 075023247 075023254 075023262 075023270 075023288 075023296
075023304 075023312 075023320 075023338 075023346 075023361 075023544

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).

071095462 075023213 075023353
Material Safety Data Sheet

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PRODUCT NAME: 6028SU 3M™ ESPE™ FILTEK™ SUPREME ULTRA UNIVERSAL RESTORATIVE SYRINGE SINGLE SHADE INTRO KIT
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: 09/07/11
Supercedes Date: Initial Issue
Document Group: 30-0393-6

ID Number(s):
70-2010-8685-0

This product is a kit or a multipart product which consists of multiple, independently packaged components. An MSDS for each of these components is included. Please do not separate the component MSDSs from this cover page. The document numbers of the MSDSs for components of this product are:

29-8287-4, 26-5783-1, 29-8286-6

No revision information is available.

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Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 6028/ 6029/ 5916 3M™ ESPE™ FILTEK™ SUPREME ULTRA UNIVERSAL RESTORATIVE
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: 05/20/13
Supersedes Date: 12/30/10
Document Group: 26-5783-1

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

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
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<td>444758-98-9</td>
<td>60 - 80</td>
</tr>
<tr>
<td>SILANE TREATED SILICA</td>
<td>248596-91-0</td>
<td>1 - 10</td>
</tr>
<tr>
<td>DIURETHANE DIMETHACRYLATE (UDMA)</td>
<td>72869-86-4</td>
<td>1 - 10</td>
</tr>
<tr>
<td>BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE</td>
<td>41637-38-1</td>
<td>1 - 10</td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>1565-94-2</td>
<td>1 - 10</td>
</tr>
<tr>
<td>SILANE TREATED ZIRCONIA</td>
<td>Unknown</td>
<td>1 - 10</td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOL DIMETHACRYLATE</td>
<td>25852-47-5</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
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</tr>
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<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>128-37-0</td>
<td>&lt; 0.5</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW
Specific Physical Form: Paste
Odor, Color, Grade: Slight acrylate odor, Tooth colored
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:
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

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: Remove person to fresh air. If signs/symptoms develop, get medical attention.
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoionition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No flash point</td>
</tr>
<tr>
<td>Flammable Limits(LEL)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammable Limits(UEL)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

5.2 EXTINGUISHING MEDIA

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g., water, foam).
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. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

6.2. Environmental precautions
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. 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. 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. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Do not use in a confined area or areas with little or no air movement.

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. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials. 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. Avoid breathing of dust created by cutting, sanding, grinding or machining.

8.2.4 Prevention of Swallowing
Do not ingest. Wash hands after handling and before eating.

8.3 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Authority</th>
<th>Type</th>
<th>Limit</th>
<th>Additional Information</th>
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<tbody>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>ACGIH</td>
<td>TWA, inhalable fraction and vapor</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Paste
Odor, Color, Grade: Slight acrylate odor, Tooth colored
General Physical Form: Solid
Autoignition temperature No Data Available
Flash Point No flash point
Flammable Limits(LEL) Not Applicable
Flammable Limits(UEL) Not Applicable
Boiling Point Not Applicable
Density 1.9 g/cm³
Vapor Density Not Applicable
Vapor Pressure Not Applicable

Specific Gravity 1.9 [Ref Std: WATER=1]

pH Not Applicable
Melting point No Data Available
Solubility In Water No Data Available

Evaporation rate Not Applicable
Volatile Organic Compounds Not Applicable
Kow - Oct/ Water partition coef Not Applicable
VOC Less H₂O & Exempt Solvents Not Applicable
Viscosity No Data Available
SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:
10.1 Conditions to avoid
Heat

10.2 Materials to avoid
Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

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 completely cured (or polymerized) wastes in a sanitary landfill.
As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator in the presence of a combustible material.

EPA Hazardous Waste Number (RCRA): Not regulated

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

SECTION 14: TRANSPORT INFORMATION
ID Number(s):
LE-F100-0683-6, 70-2010-5780-2, 70-2010-5781-0, 70-2010-5791-9, 70-2010-5792-7, 70-2010-5793-5, 70-2010-5794-3, 70-2010-5795-0, 70-2010-5796-8, 70-2010-5797-6, 70-2010-5798-4, 70-2010-5799-2, 70-2010-5800-8, 70-2010-5801-6, 70-2010-5802-4, 70-2010-5803-2, 70-2010-5804-0, 70-2010-5805-7, 70-2010-5806-5, 70-2010-5807-3, 70-2010-5808-1, 70-2010-5809-9, 70-2010-5810-7, 70-2010-5811-5, 70-2010-5812-3, 70-2010-5813-1, 70-2010-5814-9, 70-2010-5815-6, 70-2010-5816-4, 70-2010-5817-2, 70-2010-5818-0, 70-2010-5819-8, 70-2010-5820-6, 70-2010-5821-4, 70-2010-5822-2, 70-2010-5823-0, 70-2010-5824-8, 70-2010-5825-5, 70-2010-5826-3, 70-2010-5827-1, 70-2010-5828-9, 70-2010-5829-7, 70-2010-5830-5, 70-2010-5831-3, 70-2010-5832-1, 70-2010-5833-9, 70-2010-5834-7, 70-2010-5835-4, 70-2010-5836-2, 70-2010-5837-0, 70-2010-5838-8, 70-2010-5839-6, 70-2010-5840-4, 70-2010-5841-2, 70-2010-5842-0, 70-2010-5843-8, 70-2010-5844-6, 70-2010-5845-3, 70-2010-5846-1, 70-2010-5847-9, 70-2010-5848-7, 70-2010-5849-5, 70-2010-5850-3, 70-2010-5851-1, 70-2010-5852-9, 70-2010-5853-7, 70-2010-5854-5, 70-2010-5855-2, 70-2010-5856-0, 70-2010-5857-8, 70-2010-5858-6, 70-2010-5859-4, 70-2010-5860-2, 70-2010-5861-0, 70-2010-5862-8, 70-2010-5863-6, 70-2010-5864-4, 70-2010-5865-2, 70-2010-5866-0, 70-2010-5867-8, 70-2010-5868-6, 70-2010-5869-4, 70-2010-5870-2, 70-2010-5871-0, 70-2010-5872-8, 70-2010-5873-6, 70-2010-5874-4, 70-2010-5875-2, 70-2010-5876-0, 70-2010-5877-8, 70-2010-5878-6, 70-2010-5879-4, 70-2010-5880-2, 70-2010-5881-0, 70-2010-5882-8, 70-2010-5883-6, 70-2010-5884-4, 70-2010-5885-2, 70-2010-5886-0, 70-2010-5887-8, 70-2010-5888-6, 70-2010-5889-4, 70-2010-5890-2, 70-2010-5891-0, 70-2010-5892-8, 70-2010-5893-6, 70-2010-5894-4, 70-2010-5895-2, 70-2010-5896-0, 70-2010-5897-8, 70-2010-5898-6, 70-2010-5899-4, 70-2010-5900-2

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 3: Potential effects from skin contact information was modified.
Section 7: Handling information was modified.
Section 8: Engineering controls information was modified.
Section 8: Respiratory protection information was modified.
Section 10: Hazardous decomposition or by-products table 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 value 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 8: Exposure guidelines ingredient information was modified.
Section 16: Web address was added.
Section 8: Hand protection information was added.
Section 1: Address was added.
Copyright was added.
Company logo 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 1: Address line 1 was deleted.
Section 1: Address line 2 was deleted.

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M™ ESPE™ Scotchbond™ Universal Etchant
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: 06/06/12
Supercedes Date: 09/06/11
Document Group: 29-8286-6

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

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
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<td>50 - 65</td>
</tr>
<tr>
<td>PHOSPHORIC ACID</td>
<td>7664-38-2</td>
<td>30 - 40</td>
</tr>
<tr>
<td>SYNTHETIC AMORPHOUS SILICA, FUMED, CRYSTALLINE FREE</td>
<td>112945-52-5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOL</td>
<td>25322-68-3</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ALUMINUM OXIDE</td>
<td>1344-28-1</td>
<td>&lt; 2</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Gel
Odor, Color, Grade: Slight characteristic odor, Blue
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: May cause chemical eye burns. May cause chemical skin burns. May cause chemical gastrointestinal burns. 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:**
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

**Skin Contact:**
Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

**Inhalation:**
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**Ingestion:**
May be harmful if swallowed.

Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

### 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:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water for at least 15 minutes. Get immediate medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

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

### SECTION 5: FIRE FIGHTING MEASURES

#### 5.1 FLAMMABLE PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 100 °C [Test Method: Closed Cup]</td>
</tr>
<tr>
<td>Flammable Limits(LEL)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammable Limits(UEL)</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

#### 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. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Cover, but do not seal for 48 hours.

6.2. Environmental precautions
For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Place in a metal 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. Contain spill. Cover with soda ash (sodium carbonate) or sodium bicarbonate. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. 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 prolonged or repeated skin contact. Wash hands after handling and before eating.

7.2 STORAGE
Keep container in well-ventilated area. Store away from areas where product may come into contact with food or pharmaceuticals. 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

Obtained by Global Safety Management, Inc. www.globalsafetynet.com (Tel: 1-813-435-5161)
8.2.2 Skin Protection
Avoid prolonged or repeated skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

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

8.3 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Authority</th>
<th>Type</th>
<th>Limit</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALUMINUM OXIDE</td>
<td>CMRG</td>
<td>TWA</td>
<td>1 fiber/cc</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM OXIDE</td>
<td>OSHA</td>
<td>TWA, respirable</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM OXIDE</td>
<td>OSHA</td>
<td>TWA, as total dust</td>
<td>15 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Aluminum, insoluble compounds</td>
<td>ACGIH</td>
<td>TWA, respirable</td>
<td>1 mg/m3</td>
<td></td>
</tr>
<tr>
<td>PHOSPHORIC ACID</td>
<td>ACGIH</td>
<td>TWA</td>
<td>1 mg/m3</td>
<td></td>
</tr>
<tr>
<td>PHOSPHORIC ACID</td>
<td>ACGIH</td>
<td>STEL</td>
<td>3 mg/m3</td>
<td></td>
</tr>
<tr>
<td>PHOSPHORIC ACID</td>
<td>OSHA</td>
<td>TWA</td>
<td>1 mg/m3</td>
<td></td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOL</td>
<td>AIHA</td>
<td>TWA, as particulate</td>
<td>10 mg/m3</td>
<td></td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOLS</td>
<td>AIHA</td>
<td>TWA, as particulate</td>
<td>10 mg/m3</td>
<td></td>
</tr>
<tr>
<td>SILICA, AMORPHOUS</td>
<td>OSHA</td>
<td>TWA</td>
<td>20 millions of</td>
<td>particles/cu. ft.</td>
</tr>
<tr>
<td>SILICA, AMORPHOUS</td>
<td>OSHA</td>
<td>TWA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Gel
Odor, Color, Grade: Slight characteristic odor, Blue
General Physical Form: Liquid
Autoignition temperature: No Data Available
Flash Point: > 100 ºC [Test Method: Closed Cup]
Flammable Limits(LEL): No Data Available
Flammable Limits(UEL): No Data Available
Boiling Point: No Data Available
Density: 1.1 g/ml - 1.2 g/ml
Vapor Density: No Data Available
Vapor Pressure: No Data Available
Specific Gravity: 1.1 - 1.2 [Ref Std: WATER=1]
pH: < 1
Melting point: Not Applicable
Solubility in Water: Complete
Evaporation rate: No Data Available
Volatile Organic Compounds: No Data Available
Kow - Oct/Water partition coef: No Data Available
Percent volatile: No Data Available
VOC Less H2O & Exempt Solvents: No Data Available
Viscosity: No Data Available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:
10.1 Conditions to avoid
Heat

10.2 Materials to avoid
Strong bases

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

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: Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

EPA Hazardous Waste Number (RCRA): D002 (Corrosive)
Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):
LE-F100-1014-5, LE-F100-1040-4, 70-2011-3906-3

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

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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALUMINUM OXIDE</td>
<td>1344-28-1</td>
<td>&lt; 2</td>
</tr>
</tbody>
</table>

STATE REGULATIONS
Contact 3M for more information.

CHEMICAL INVENTORIES
All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. This material contains one or more substances not listed on the TSCA Inventory. Commercial use of this material is regulated by the FDA.

The components of this product are listed on the Canadian Domestic Substances List.

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: 3  Flammability: 1  Reactivity: 0  Special Hazards: None
Corrosive: Yes

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 9: Specific gravity information was modified.
Copyright was modified.

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Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>PRODUCT NAME:</th>
<th>3M™ ESPE™ Scotchbond™ Universal</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANUFACTURER:</td>
<td>3M</td>
</tr>
<tr>
<td>DIVISION:</td>
<td>3M ESPE Dental Products</td>
</tr>
<tr>
<td>ADDRESS:</td>
<td>3M Center, St. Paul, MN 55144-1000</td>
</tr>
</tbody>
</table>

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

Issue Date: 07/13/11
Supercedes Date: 07/12/11
Document Group: 29-8287-4

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

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>1565-94-2</td>
<td>15 - 25</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE</td>
<td>868-77-9</td>
<td>15 - 25</td>
</tr>
<tr>
<td>DECAMETHYLENE DIMETHACRYLATE</td>
<td>6701-13-9</td>
<td>5 - 15</td>
</tr>
<tr>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>10 - 15</td>
</tr>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>10 - 15</td>
</tr>
<tr>
<td>SILANE TREATED SILICA</td>
<td>122334-95-6</td>
<td>5 - 15</td>
</tr>
<tr>
<td>2-PROPENOIC ACID, 2-METHYL-, REACTION PRODUCTS WITH 1,10-DECANEDIOL AND PHOSPHOROUS OXIDE (P2O5)</td>
<td>1207736-18-2</td>
<td>1 - 10</td>
</tr>
<tr>
<td>COPOLYMER OF ACRYLIC AND ITACONIC ACID</td>
<td>25948-33-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>DIMETHYLAMINOBENZOAT(-4)</td>
<td>10287-53-3</td>
<td>&lt; 2</td>
</tr>
<tr>
<td>CAMPHORQUINONE</td>
<td>10373-78-1</td>
<td>&lt; 2</td>
</tr>
<tr>
<td>(DIMETHYLAMINO)ETHYL METHACRYLATE</td>
<td>2867-47-2</td>
<td>&lt; 2</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>78-93-3</td>
<td>&lt; 0.5</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Obtained by Global Safety Management, Inc. www.globalsafetynet.com (Tel: 1-813-435-5161)
Specific Physical Form: Viscous Liquid
Odor, Color, Grade: Characteristic odor, yellow liquid
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: Flammable liquid and vapor. May cause chemical eye burns. May cause allergic skin reaction. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Contains a chemical or chemicals which can cause cancer. 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:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

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

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May be absorbed following inhalation and cause target organ effects.

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

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:
Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

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

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

NOTE: This product contains ethanol. In IARC published Monograph No. 44, entitled, "Alcohol Drinking", the carcinogenicity of ethanol was determined based on chronic exposure to ethanol through human consumption of alcoholic beverages. This is not an expected effect during the foreseeable use of this product.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>Class Description</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>Grp. 1: Carcinogenic to humans</td>
<td>International Agency for Research on Cancer</td>
</tr>
</tbody>
</table>

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:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate 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:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>34 ºC [Test Method: Closed Cup]</td>
</tr>
<tr>
<td>Flammable Limits(LEL)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammable Limits(UEL)</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

#### 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:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode.

*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. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

#### 6.2. Environmental precautions

Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

**Clean-up methods**

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Working from around the edges of the spill inward, cover with...
bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with detergent and water. Seal the container.

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
Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid static discharge. Avoid eye contact. Avoid breathing of vapors. 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 under normal warehouse conditions. Keep container tightly closed. Store away from heat. Store out of direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS
Use in a well-ventilated area.

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. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Authority</th>
<th>Type</th>
<th>Limit</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butanone</td>
<td>ACGIH</td>
<td>TWA</td>
<td>200 ppm</td>
<td></td>
</tr>
<tr>
<td>2-Butanone</td>
<td>ACGIH</td>
<td>STEL</td>
<td>300 ppm</td>
<td></td>
</tr>
<tr>
<td>2-Butanone</td>
<td>OSHA</td>
<td>TWA</td>
<td>590 mg/m³</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM OXIDE (FIBROUS FORMS ONLY)</td>
<td>OSHA</td>
<td>TWA, respirable fraction</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM OXIDE (FIBROUS FORMS ONLY)</td>
<td>OSHA</td>
<td>TWA, as total dust</td>
<td>15 mg/m³</td>
<td></td>
</tr>
<tr>
<td>ETHANOL</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1000 ppm</td>
<td></td>
</tr>
</tbody>
</table>
ETHANOL

METHYL ETHYL KETONE

METHYL ETHYL KETONE

METHYL ETHYL KETONE

ETHANOL OSHA TWA 1900 mg/m3

METHYL ETHYL KETONE ACGIH TWA 200 ppm

METHYL ETHYL KETONE ACGIH STEL 300 ppm

METHYL ETHYL KETONE OSHA TWA 590 mg/m3

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Viscous Liquid

Odor, Color, Grade: Characteristic odor, yellow liquid

General Physical Form: Liquid

Autoignition temperature No Data Available

Flash Point 34 ºC [Test Method: Closed Cup]

Flammable Limits(LEL) No Data Available

Flammable Limits(UEL) No Data Available

Boiling Point >= 78 ºC

Density 1 - 1.2 g/cm3

Vapor Density No Data Available

Vapor Pressure No Data Available

Specific Gravity 1 - 1.2 [Ref Std: WATER=1]

pH Not Applicable

Melting point No Data Available

Solubility in Water Appreciable

Evaporation rate No Data Available

Kow - Oct/Water partition coef No Data Available

Viscosity Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:
10.1 Conditions to avoid
Heat

10.2 Materials to avoid
None known

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
</table>

Obtained by Global Safety Management, Inc. www.globalsafetynet.com (Tel: 1-813-435-5161)
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 completely cured (or polymerized) wastes in a sanitary landfill. Incinerate uncured product in a permitted hazardous waste incinerator.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable), D035 (Methyl ethyl ketone)

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

SECTION 14: TRANSPORT INFORMATION

ID Number(s):
LE-F100-1014-6, LE-F100-1014-7, LE-F100-1014-9, 70-2011-3903-0

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

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: 3 Flammability: 2 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 name was modified.
Section 3: Carcinogenicity phrase was modified.
Page Heading: Product name was modified.
Section 1: Initial issue message was modified.
Section 14: ID Number(s) Template 1 was modified.

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Document Group: 26-5783-1
Issue Date: 02/25/16
Version Number: 5.00
Supercedes Date: 10/24/14

SECTION 1: Identification

1.1. Product identifier
6028/ 6029/ 5916 3M™ ESPE™ FILTEK™ SUPREME ULTRA UNIVERSAL RESTORATIVE

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

MANUFACTURER: 3M
DIVISION: Oral Care Solutions Division
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.

2.2. Label elements
Signal word
Warning

Symbols
Exclamation mark |

Pictograms
Hazard Statements
May cause an allergic skin reaction.

Precautionary Statements

Prevention:
Avoid breathing dust/fume/gas/mist/vapors/spray.
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.

2.3. Hazards not otherwise classified
None.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILANE TREATED CERAMIC</td>
<td>444758-98-9</td>
<td>60 - 80</td>
</tr>
<tr>
<td>SILANE TREATED SILICA</td>
<td>248596-91-0</td>
<td>1 - 10</td>
</tr>
<tr>
<td>DIURETHANE DIMETHACRYLATE (UDMA)</td>
<td>72869-86-4</td>
<td>1 - 10</td>
</tr>
<tr>
<td>BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE</td>
<td>41637-38-1</td>
<td>1 - 10</td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>1565-94-2</td>
<td>1 - 10</td>
</tr>
<tr>
<td>SILANE TREATED ZIRCONIA</td>
<td>Unknown</td>
<td>1 - 10</td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOL DIMETHACRYLATE</td>
<td>25852-47-5</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>109-16-0</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>128-37-0</td>
<td>&lt; 0.5</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

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.

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.

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. Avoid breathing dust/fume/gas/mist/vapors/spray. 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. Wash
contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

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
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.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>128-37-0</td>
<td>ACGIH</td>
<td>TWA(inhalable fraction and vapor):2 mg/m3</td>
<td>A4: Not class. as human carcin</td>
</tr>
</tbody>
</table>

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
None 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, Tooth colored
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
- **Flammable Limits (LEL)**: Not Applicable
- **Flammable Limits (UEL)**: Not Applicable

### Vapor Properties
- **Vapor Pressure**: Not Applicable
- **Vapor Density**: Not Applicable
- **Density**: 1.9 g/cm³
- **Specific Gravity**: 1.9 [Ref Std: WATER=1]
- **Solubility In Water**: No Data Available
- **Solubility- non-water**: No Data Available
- **Partition coefficient: n-octanol/ water**: Not Applicable
- **Autoignition temperature**: No Data Available
- **Decomposition temperature**: No Data Available
- **Viscosity**: No Data Available
- **Molecular weight**: No Data Available
- **Volatile Organic Compounds**: Not Applicable
- **VOC Less H2O & Exempt Solvents**: Not Applicable

### 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
Heat

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td></td>
</tr>
</tbody>
</table>

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:**
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:**
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

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td>No data available; calculated ATE 2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>SILANE TREATED CERAMIC</td>
<td>Dermal</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>SILANE TREATED CERAMIC</td>
<td>Ingestion</td>
<td>LD50 estimated to be 2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>SILANE TREATED SILICA</td>
<td>Dermal</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>SILANE TREATED SILICA</td>
<td>Ingestion</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE</td>
<td>Dermal</td>
<td>Professio nal judgement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>DIURETHANE DIMETHACRYLATE (UDMA)</td>
<td>Dermal</td>
<td>Professio nal judgement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE</td>
<td>Ingestion</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 &gt; 2,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>DIURETHANE DIMETHACRYLATE (UDMA)</td>
<td>Ingestion</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>Ingestion</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 estimated to be 2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>Dermal</td>
<td>Professio nal judgement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 estimated to be 2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOL DIMETHACRYLATE</td>
<td>Dermal</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOL DIMETHACRYLATE</td>
<td>Ingestion</td>
<td>LD50 &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Dermal</td>
<td>Professio nal judgement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Ingestion</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 10,837 mg/kg</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>Dermal</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 &gt; 2,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>Ingestion</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LD50 &gt; 2,930 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate
### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILANE TREATED CERAMIC similar compounds</td>
<td></td>
<td>No significant irritation</td>
</tr>
<tr>
<td>SILANE TREATED SILICA Professional judgement</td>
<td></td>
<td>No significant irritation</td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) Not available</td>
<td>Minimal irritation</td>
<td></td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA) Guinea pig</td>
<td>Mild irritant</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL Human and animal</td>
<td></td>
<td>Minimal irritation</td>
</tr>
</tbody>
</table>

### Serious Eye Damage/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILANE TREATED CERAMIC similar compounds</td>
<td></td>
<td>Mild irritant</td>
</tr>
<tr>
<td>SILANE TREATED SILICA Professional judgement</td>
<td></td>
<td>No significant irritation</td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) Not available</td>
<td>Moderate irritant</td>
<td></td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA) Professio nal judgement</td>
<td>Moderate irritant</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL Rabbit</td>
<td></td>
<td>Mild irritant</td>
</tr>
</tbody>
</table>

### Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILANE TREATED CERAMIC similar compounds</td>
<td></td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE Guinea pig</td>
<td>Not sensitizing</td>
<td></td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) Guinea pig</td>
<td>Sensitizing</td>
<td></td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA) Human and animal</td>
<td>Sensitizing</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL Human</td>
<td></td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Respiratory Sensitization

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

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Name</td>
<td>Route</td>
<td>Species</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
</tbody>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILANE TREATED CERAMIC</td>
<td>Inhalation</td>
<td>similar compounds</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Dermal</td>
<td>Mouse</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>Ingestion</td>
<td>Multiple animal species</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>Ingestion</td>
<td>Not toxic to female reproduction</td>
<td>Mouse</td>
<td>NOAEL 0.8 mg/kg/day</td>
<td>premating &amp; during gestation</td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>Ingestion</td>
<td>Not toxic to male reproduction</td>
<td>Mouse</td>
<td>NOAEL 0.8 mg/kg/day</td>
<td>premating &amp; during gestation</td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>Ingestion</td>
<td>Not toxic to development</td>
<td>Mouse</td>
<td>NOAEL 0.8 mg/kg/day</td>
<td>premating &amp; during gestation</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Ingestion</td>
<td>Not toxic to female reproduction</td>
<td>Mouse</td>
<td>NOAEL 1 mg/kg/day</td>
<td>1 generation</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Ingestion</td>
<td>Not toxic to male reproduction</td>
<td>Mouse</td>
<td>NOAEL 1 mg/kg/day</td>
<td>1 generation</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Ingestion</td>
<td>Not toxic to development</td>
<td>Mouse</td>
<td>NOAEL 1 mg/kg/day</td>
<td>1 generation</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>Ingestion</td>
<td>Not toxic to female reproduction</td>
<td>Mouse</td>
<td>NOAEL 100 mg/kg/day</td>
<td>2 generation</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>Ingestion</td>
<td>Not toxic to male reproduction</td>
<td>Mouse</td>
<td>NOAEL 500 mg/kg/day</td>
<td>2 generation</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>Ingestion</td>
<td>Not toxic to development</td>
<td>Mouse</td>
<td>NOAEL 500 mg/kg/day</td>
<td>2 generation</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILANE TREATED CERAMIC</td>
<td>Inhalation</td>
<td>pulmonary fibrosis</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>similar compounds</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)</td>
<td>Ingestion</td>
<td>endocrine system</td>
<td>liver</td>
<td>nervous system</td>
<td>kidney and/or bladder</td>
<td>All data are negative</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Dermal</td>
<td>kidney and/or bladder</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Mouse</td>
<td>NOAEL 833 mg/kg/day</td>
<td>78 weeks</td>
</tr>
<tr>
<td>TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)</td>
<td>Dermal</td>
<td>blood</td>
<td>All data are negative</td>
<td>Mouse</td>
<td>NOAEL 833 mg/kg/day</td>
<td>78 weeks</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>Ingestion</td>
<td>liver</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 250</td>
<td>28 days</td>
</tr>
<tr>
<td>Component</td>
<td>Ingestion</td>
<td>Effect</td>
<td>Data availability</td>
<td>Species</td>
<td>LOAEL/NOAEL mg/kg/day</td>
<td>Duration</td>
</tr>
<tr>
<td>----------------------------</td>
<td>----------------</td>
<td>----------------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
<td>-----------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>kidney and/or bladder</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 500 mg/kg/day</td>
<td>2 generation</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>blood</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>LOAEL 420 mg/kg/day</td>
<td>40 days</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>endocrine system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 25 mg/kg/day</td>
<td>2 generation</td>
<td></td>
</tr>
<tr>
<td>2,6-DI-TERT-BUTYL-P-CRESOL</td>
<td>heart</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Mouse</td>
<td>NOAEL 3,480 mg/kg/day</td>
<td>10 weeks</td>
<td></td>
</tr>
</tbody>
</table>

**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.

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**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.

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**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

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**SECTION 14: Transport Information**

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

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**SECTION 15: Regulatory information**

**15.1. 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
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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