This SDS packet was issued with item:
075023379

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

075023361 075023387 075023395 075023403 075023411 075023452 075023460 075023478 075023486 075023502 375493134

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).

075023213 075023239 075023353 075023429 075023437 075023445 075023510 075023536 075023551
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: 12/30/10
Supersedes Date: 11/01/10
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>
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<th>% by Wt</th>
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</thead>
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<tr>
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<td>60 - 80</td>
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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:
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:
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

```
Autoignition temperature: No Data Available
Flash Point: Not Applicable
Flammable Limits (LEL): Not Applicable
Flammable Limits (UEL): Not Applicable
```

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. 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

<table>
<thead>
<tr>
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<th>Authority</th>
<th>Type</th>
<th>Limit</th>
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<td>ACGIH</td>
<td>TWA, inhalable fraction and vapor</td>
<td>2 mg/m³</td>
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</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:
Odor, Color, Grade: Paste
General Physical Form: Slight acrylate odor, Tooth colored
Autoignition temperature: Solid
Flash Point: No Data Available
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
Kow - Oct/Water partition coef 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
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, 70-2010-7731-3, 70-2010-7732-1, 70-2010-7733-9, 70-2010-7734-7, 70-2010-7735-4, 70-2010-7736-2, 70-2010-7737-0, 70-2010-7738-8, 70-2010-7739-6, 70-2010-7740-4, 70-2010-7741-2, 70-2010-7742-0, 70-2010-7881-6

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.

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 9: Boiling point information was modified.
Section 5: Flammable limits (UE) information was modified.
Section 5: Flammable limits (LEL) information was modified.
Section 9: Flammable limits (LEL) information was modified.
Section 9: Flammable limits (UEL) information was modified.
Section 8: Exposure guidelines ingredient information was modified.
Section 6: 6.2. Environmental precautions heading was modified.
Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading was modified.
Section 3: Carcinogenicity table was deleted.
Section 3: Carcinogenicity heading was deleted.

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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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3M USA MSDSs are available at www.3M.com
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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

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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

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</tr>
<tr>
<td>Flash Point</td>
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<td>Flammable Limits(LEL)</td>
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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

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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, 70-2010-5781-0, 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, 70-2010-5828-9, 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, 70-2010-5871-3, 70-2010-5871-3, 70-2010-7731-3, 70-2010-7732-1, 70-2010-7733-9, 70-2010-7734-7, 70-2010-7735-4, 70-2010-7736-2, 70-2010-7737-0, 70-2010-7738-8, 70-2010-7741-2, 70-2010-7742-0, 70-2010-8997-9, 70-2010-8998-7, 70-2010-8999-5, 70-2010-9400-3

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

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 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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Material Safety Data Sheet

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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>
<td>7732-18-5</td>
<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

Obtained by Global Safety Management, Inc. www.globalsafetynet.com (Tel: 1-813-435-5161)
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.
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 CMRG TWA</td>
<td></td>
<td>TWA</td>
<td>1 fiber/cc</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM OXIDE OSHA TWA, respirable fraction</td>
<td></td>
<td>TWA, respirable fraction</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM OXIDE OSHA TWA, as total dust</td>
<td></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 ACGIH TWA</td>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>PHOSPHORIC ACID ACGIH STEL</td>
<td></td>
<td>STEL</td>
<td>3 mg/m³</td>
<td></td>
</tr>
<tr>
<td>PHOSPHORIC ACID OSHA TWA</td>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOL ANHA TWA</td>
<td></td>
<td>TWA, as particulate</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>POLYETHYLENE GLYCOLS ANHA TWA</td>
<td></td>
<td>TWA, as particulate</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>SILICA, AMORPHOUS OSHA TWA</td>
<td></td>
<td>TWA, concentration</td>
<td>0.8 mg/m³</td>
<td></td>
</tr>
<tr>
<td>SILICA, AMORPHOUS OSHA TWA</td>
<td></td>
<td>TWA</td>
<td>20 millions of particles/cu. ft.</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 °C [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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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M™ ESPE™ Scotchbond™ Universal
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: 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</td>
<td>1207736-18-2</td>
<td>1 - 10</td>
</tr>
<tr>
<td>PHOSPHOROUS OXIDE (P2O5)</td>
<td></td>
<td></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
Specific Physical Form: Visous 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>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>34 °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:** 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>
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<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>
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<tr>
<td>ALUMINUM OXIDE (FIBROUS FORMS ONLY)</td>
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<td>ALUMINUM OXIDE (FIBROUS FORMS ONLY)</td>
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<td>TWA, as total dust</td>
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<td>ETHANOL</td>
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</tr>
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<td>Substance</td>
<td>Source</td>
<td>Limit Type</td>
<td>Limit</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------</td>
<td>------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>ETHANOL</td>
<td>OSHA</td>
<td>TWA</td>
<td>1900 mg/m³</td>
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<tr>
<td>METHYL ETHYL KETONE</td>
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<td>TWA</td>
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<tr>
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<td>ACGIH</td>
<td>STEL</td>
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<td></td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>OSHA</td>
<td>TWA</td>
<td>590 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Specific Physical Form</td>
<td>Viscous Liquid</td>
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<tr>
<td>Odor, Color, Grade</td>
<td>Characteristic odor, yellow liquid</td>
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<td>General Physical Form</td>
<td>Liquid</td>
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<td>Autoignition temperature</td>
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<tr>
<td>Flash Point</td>
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</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>
<tr>
<td>Boiling Point</td>
<td>&gt;= 78 ºC</td>
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<td>Density</td>
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<td>Vapor Density</td>
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<tr>
<td>Specific Gravity</td>
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</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
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<tr>
<td>Melting point</td>
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<td>Evaporation rate</td>
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<tr>
<td>Kow - Oct/Water partition coef</td>
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</tr>
<tr>
<td>Viscosity</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

### 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>
### 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**

<table>
<thead>
<tr>
<th>Formaldehyde</th>
<th>During Combustion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Irritant Vapors or Gases</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Oxides of Nitrogen</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>
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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