



## Material Safety Data Sheet

Copyright, 2004, 3M Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

**PRODUCT NAME:** 3M(TM) ESPE(TM) ADPER(TM) SINGLE BOND PLUS

**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:** 03/30/2004

**Supersedes Date:** 11/14/2003

**Document Group:** 18-9080-5

### ID Number(s):

70-2010-3672-3, 70-2010-3766-3, 70-2011-1988-3, 70-2011-1989-1, 70-2011-2162-4

**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:**

10-4782-8, 18-9025-0

**Reason for Reissue:** The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

### Revision Changes:

Copyright was modified.

Kit: ID number(s) was modified.

Kit initial issue message was modified.

**DISCLAIMER:** The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.



## Material Safety Data Sheet

Copyright, 2009, 3M Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 7523 3M(TM) ESPE(TM) SCOTCHBOND(TM) ETCHANT DELIVERY SYSTEM

**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:** 02/26/2009

**Supersedes Date:** 06/12/2007

**Document Group:** 10-4782-8

#### Product Use:

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

### SECTION 2: INGREDIENTS

| <u>Ingredient</u>          | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|----------------------------|-------------------|----------------|
| WATER                      | 7732-18-5         | 55 - 65        |
| PHOSPHORIC ACID            | 7664-38-2         | 30 - 40        |
| SYNTHETIC AMORPHOUS SILICA | 112945-52-5       | 5 - 10         |

### 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

Autoignition temperature

*No Data Available*

Flash Point

*Not Applicable*

Flammable Limits - LEL

*Not Applicable*

Flammable Limits - UEL

*Not Applicable*

## 5.2 EXTINGUISHING MEDIA

Non-combustible. Choose material suitable for surrounding fire.

## 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

**Accidental Release Measures:** 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. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. Contain spill. For large spills, if necessary, get assistance from professional spill clean up team. For small spills, carefully cover the spill with soda ash (sodium carbonate) or sodium bicarbonate. Work from around the perimeter inward. Avoid splashing. Add enough water to ease mixing and stir. Continue stirring and adding water and neutralizing agent until the reaction stops. Let cool before collecting. Or use a commercially available 'Acid spill' clean-up kit. Follow the kit directions exactly, as specified. 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. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible. Clean up residue with a dilute solution (approximately 1 to 5%) of soda ash (sodium carbonate) or baking soda (sodium bicarbonate) in 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. Cover, but do not seal for 48 hours. Dispose of collected material as soon as possible.

**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. Wash hands after handling and before eating.

### 7.2 STORAGE

Store under normal warehouse conditions.

## 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.

### 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

| <u><b>Ingredient</b></u> | <u><b>Authority</b></u> | <u><b>Type</b></u> | <u><b>Limit</b></u> | <u><b>Additional Information</b></u> |
|--------------------------|-------------------------|--------------------|---------------------|--------------------------------------|
| PHOSPHORIC ACID          | ACGIH                   | TWA                | 1 mg/m3             |                                      |
| PHOSPHORIC ACID          | ACGIH                   | STEL               | 3 mg/m3             |                                      |
| PHOSPHORIC ACID          | OSHA                    | TWA                | 1 mg/m3             | Table Z-1A                           |
| PHOSPHORIC ACID          | OSHA                    | STEL               | 3 mg/m3             | Table Z-1A                           |

#### 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

|                                           |                                  |
|-------------------------------------------|----------------------------------|
| <b>Specific Physical Form:</b>            | Gel                              |
| <b>Odor, Color, Grade:</b>                | Slight characteristic odor, blue |
| <b>General Physical Form:</b>             | Liquid                           |
| <b>Autoignition temperature</b>           | <i>No Data Available</i>         |
| <b>Flash Point</b>                        | <i>Not Applicable</i>            |
| <b>Flammable Limits - LEL</b>             | <i>Not Applicable</i>            |
| <b>Flammable Limits - UEL</b>             | <i>Not Applicable</i>            |
| <b>Boiling point</b>                      | >= 212 °F                        |
| <b>Density</b>                            | 1.28 g/ml                        |
| <b>Vapor Density</b>                      | <i>No Data Available</i>         |
| <b>Vapor Pressure</b>                     | <i>No Data Available</i>         |
| <b>Specific Gravity</b>                   | 1.28 [Ref Std: WATER=1]          |
| <b>pH</b>                                 | 1.0                              |
| <b>Melting point</b>                      | <i>Not Applicable</i>            |
| <b>Solubility in Water</b>                | Complete                         |
| <b>Evaporation rate</b>                   | <i>No Data Available</i>         |
| <b>Volatile Organic Compounds</b>         | <i>No Data Available</i>         |
| <b>Percent volatile</b>                   | <i>No Data Available</i>         |
| <b>VOC Less H2O &amp; Exempt Solvents</b> | <i>No Data Available</i>         |
| <b>Viscosity</b>                          | 100,000 centipoise               |

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:** Strong bases

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

### Hazardous Decomposition or By-Products

**Substance**

Carbon monoxide  
Carbon dioxide

**Condition**

During Combustion  
During Combustion

## SECTION 11: TOXICOLOGICAL INFORMATION

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

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** 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-F100-0070-1, LE-F100-0182-1, LE-F100-0350-8, 70-2010-1442-3, 70-2010-5157-3, FH-5000-3624-6, FH-5000-3625-3, FH-5000-4220-2

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

## 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: 3 Flammability: 0 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 1: Product use information was modified.  
 Section 16: NFPA hazard classification for health was modified.  
 Copyright was modified.  
 Section 3: Potential effects from inhalation information was modified.  
 Section 3: Potential effects from ingestion information was modified.  
 Section 5: Unusual fire and explosion hazard information was modified.  
 Section 6: Release measures information was modified.  
 Section 7: Handling information was modified.  
 Section 7: Storage information was modified.  
 Section 8: Prevention of swallowing information was modified.  
 Section 9: Density information was modified.  
 Section 9: Vapor density value was modified.  
 Section 9: Vapor pressure value was modified.  
 Section 5: Autoignition temperature information was modified.  
 Sections 3 and 9: Odor, color, grade 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: Autoignition temperature information was modified.  
 Section 3: Immediate ingestion hazard(s) was added.  
 Section 4: First aid for inhalation - termination of exposure - was added.  
 Section 4: First aid for inhalation - medical assistance - was added.  
 Section 3: Immediate other hazard(s) was added.  
 Section 14: ID Number Heading Template 1 was added.  
 Section 14: ID Number(s) Template 1 was added.  
 Section 2: Ingredient table was added.  
 Section 8: Exposure guidelines ingredient information was added.  
 Section 8: Exposure guidelines data source legend was added.  
 Section 4: First aid for inhalation - none - was deleted.

**DISCLAIMER:** The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.

**3M MSDSs are available at [www.3M.com](http://www.3M.com)**



## Material Safety Data Sheet

Copyright, 2008, 3M Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M(TM) ESPE(TM) ADPER(TM) SINGLE BOND PLUS

**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:** 05/29/2008

**Supersedes Date:** 07/09/2004

**Document Group:** 18-9025-0

#### Product Use:

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

### SECTION 2: INGREDIENTS

| <u>Ingredient</u>                                    | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|------------------------------------------------------|-------------------|----------------|
| ETHYL ALCOHOL                                        | 64-17-5           | 25 - 35        |
| SILANE TREATED SILICA (NANOFILLER)                   | None              | 10 - 20        |
| BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA) | 1565-94-2         | 10 - 20        |
| 2-HYDROXYETHYL METHACRYLATE                          | 868-77-9          | 5 - 15         |
| GLYCEROL 1,3-DIMETHACRYLATE                          | 1830-78-0         | 5 - 10         |
| COPOLYMER OF ACRYLIC AND ITACONIC ACIDS              | 25948-33-8        | 5 - 10         |
| WATER                                                | 7732-18-5         | < 5            |
| DIURETHANE DIMETHACRYLATE                            | 72869-86-4        | 1 - 5          |

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Liquid

**Odor, Color, Grade:** Slight acrylate odor, white to clear in color

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Flammable liquid and vapor. Closed containers exposed to heat from

fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.  
May cause allergic skin reaction. May cause target organ effects.

### **3.2 POTENTIAL HEALTH EFFECTS**

**Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Skin Contact:**

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

Prolonged or repeated exposure may cause:

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

**Inhalation:**

Upper 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, nausea, diarrhea and vomiting.

May be absorbed following ingestion and cause target organ effects.

**Target Organ Effects:**

Prolonged or repeated exposure, above recommended guidelines, may cause:

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

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.

## **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. 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

|                          |                                   |
|--------------------------|-----------------------------------|
| Autoignition temperature | 410 °C                            |
| Flash Point              | 18.5 °C [Test Method: Closed Cup] |
| Flammable Limits - LEL   | No Data Available                 |
| Flammable Limits - UEL   | No Data Available                 |

### 5.2 EXTINGUISHING MEDIA

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

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** 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. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

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

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Accidental Release Measures:** 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. Ventilate the area with fresh air. Contain spill. Cover with absorbent material. Collect as much of the spilled material as possible. Clean up residue. Collect the resulting residue containing solution. Seal the container. Dispose of collected material as soon as possible.

**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 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.

### 7.2 STORAGE

Store away from heat. Store out of direct sunlight. Keep container tightly closed.

## 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.

#### 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.

### 8.3 EXPOSURE GUIDELINES

| <u>Ingrdient</u> | <u>Authority</u> | <u>Type</u> | <u>Limit</u> | <u>Additional Information</u> |
|------------------|------------------|-------------|--------------|-------------------------------|
| ETHYL ALCOHOL    | ACGIH            | TWA         | 1000 ppm     | Table A4                      |
| ETHYL ALCOHOL    | OSHA             | TWA         | 1000 ppm     | Table Z-1                     |

#### 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

|                                 |                                               |
|---------------------------------|-----------------------------------------------|
| <b>Specific Physical Form:</b>  | Liquid                                        |
| <b>Odor, Color, Grade:</b>      | Slight acrylate odor, white to clear in color |
| <b>General Physical Form:</b>   | Liquid                                        |
| <b>Autoignition temperature</b> | 410 °C                                        |
| <b>Flash Point</b>              | 18.5 °C [ <i>Test Method:</i> Closed Cup]     |
| <b>Flammable Limits - LEL</b>   | <i>No Data Available</i>                      |
| <b>Flammable Limits - UEL</b>   | <i>No Data Available</i>                      |
| <b>Boiling point</b>            | 78 °C                                         |
| <b>Density</b>                  | 1.075 g/ml                                    |
| <b>Vapor Density</b>            | <i>No Data Available</i>                      |
| <b>Vapor Pressure</b>           | <i>No Data Available</i>                      |

|                     |                          |
|---------------------|--------------------------|
| Specific Gravity    | 1.075 [Ref Std: WATER=1] |
| pH                  | No Data Available        |
| Melting point       | Not Applicable           |
| Solubility in Water | Negligible               |

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

**Materials and Conditions to Avoid:** Heat; Sparks and/or flames

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

### Hazardous Decomposition or By-Products

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

## SECTION 11: TOXICOLOGICAL INFORMATION

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

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

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

## SECTION 14: TRANSPORT INFORMATION

### ID Number(s):

LE-F100-0114-1, 70-2010-3673-1

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

## 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 - No

### STATE REGULATIONS

Contact 3M for more information.

### CHEMICAL INVENTORIES

This material is not listed on the TSCA inventory and should be used for research and development purposes only under the direct supervision of a technically qualified individual.

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: 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 use information was modified.

Copyright was modified.

Section 7: Storage information was modified.

Section 14: ID Number Heading Template 1 was added.

Section 14: ID Number(s) Template 1 was added.

Section 2: Ingredient table was added.

Section 8: Exposure guidelines ingredient information was added.

Section 8: Exposure guidelines data source legend was added.

**DISCLAIMER:** The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.

**3M MSDSs are available at [www.3M.com](http://www.3M.com)**