SAFETY DATA SHEETS

This SDS packet was issued with item:

075038682

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).

075034202 075034210 075034228 075035001 075035019 075035027 075035035 075035506 075035514 075035522 075035530 075035548 075035555 075036322 075036413 075036421 075036439 075038625 075038633 075038641 075038658 075038666 075038674 075038690 075038732 075038740 075038757 079367442 079367444 079367446 079367450 079367452 079367458 079367461 079367464 079367467 079367478 079367481 273007026 273009774 273015030 273016431 273016443 273020314 273022590 273023185



Material Safety Data Sheet

Copyright, 2013, 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: 3MTM ESPETM RELYXTM UNICEMTM APLICAP/MAXICAP LIQUID

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: 02/20/13 **Supercedes Date:** 09/03/12

Document Group: 17-9608-5

Product Use:

Intended Use: Dental Product

Specific Use: For use by dental professionals.

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid	1224866-76-5	40 - 50
TRIETHYLENE GLYCOL DIMETHACRYLATE	109-16-0	25 - 35
SUBSTITUTED DIMETHACRYLATE	27689-12-9	20 - 30
COPPER ACETATE	6046-93-1	< 0.2

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Liquid

Odor, Color, Grade: Clear yellow liquid with acrylate odor.

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Combustible liquid and vapor. May cause chemical eye burns. 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.

Page 1 of 6

3.2 POTENTIAL HEALTH EFFECTS

Eve 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.

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

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: 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

Autoignition temperatureNo Data Available

Flash Point 64 °C [Test Method: Tagliabue Closed Cup]

Flammable Limits(LEL)

No Data Available
No Data Available
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: Combustible liquid and vapor.

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. Contain spill. 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.

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. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. No smoking while handling this material. Avoid breathing of vapors, mists or spray. 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 skin contact.

7.2 STORAGE

Store away from heat. Store out of direct sunlight. Store away from areas where product may come into contact with food or pharmaceuticals.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Not applicable. 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. See Sect. 7.1 for more information about skin protection.

Page 3 of 6

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 vapors, mists or spray.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Do not ingest.

8.3 EXPOSURE GUIDELINES

None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Liquid

Odor, Color, Grade: Clear yellow liquid with acrylate odor.

General Physical Form: Liquid

Autoignition temperature No Data Available

Flash Point 64 °C [Test Method: Tagliabue Closed Cup]

Flammable Limits(LEL)

No Data Available
Flammable Limits(UEL)

No Data Available

 $\begin{array}{ll} \textbf{Boiling Point} & > 200 \, ^{\circ} \! F \\ \textbf{Density} & 1.14 \, \text{g/ml} \end{array}$

Vapor Density No Data Available

Vapor Pressure No Data Available

Specific Gravity 1.14 [Ref Std: WATER=1]

pH 2.3

Melting point No Data Available

Solubility In Water < 63 g/l

Evaporation rateNo Data AvailableKow - Oct/Water partition coefNo Data AvailablePercent volatileNo Data AvailableViscosityNo 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

None known

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide Carbon dioxide

Condition

During Combustion During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

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

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

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

EPA Hazardous Waste Number (RCRA): Not regulated

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

SECTION 14:TRANSPORT INFORMATION

LE-FSF6-5681-0, LE-FSFD-5682-1

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: 3 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 3: Potential effects from skin contact information was modified.

Section 7: Storage information was modified.

Section 8: Engineering controls information was modified.

Section 9: Property description for optional properties was modified.

Section 2: Ingredient table was modified.

Copyright 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

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



Material Safety Data Sheet

Copyright, 2013, 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: 3MTM ESPETM RelyXTM Unicem Aplicap/Maxicap Powder

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: 01/15/13 **Supercedes Date:** 10/08/12

Document Group: 18-0262-8

Product Use:

Intended Use: Dental Product

Limitations on Use: For use only by dental professionals. Specific Use: Dental universal luting material.

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
SILANIZED GLASS POWDER	65997-17-3	85 - 95
SILANE TREATED SILICA	122334-95-6	5 - 10
SUBSTITUTED PYRIMIDINE	72846-00-5	1 - 5
CALCIUM HYDROXIDE	1305-62-0	< 3
SODIUM PERSULFATE	7775-27-1	< 1
TITANIUM DIOXIDE	13463-67-7	< 0.5

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Powder

Odor, Color, Grade: Odorless powders of different colors.

General Physical Form: Solid

Immediate health, physical, and environmental hazards: May cause allergic skin reaction. May cause allergic respiratory reaction. Contains a chemical or chemicals which can cause cancer. This document has been prepared in accordance with the U.S.

Page 1 of 7

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:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Skin Contact:

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, 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.

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Ingestion:

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

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	Class Description	<u>Regulation</u>
TITANIUM DIOXIDE	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

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 temperatureNot ApplicableFlash PointNot ApplicableFlammable Limits(LEL)No Data AvailableFlammable Limits(UEL)No Data Available

Page 2 of 7

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: Not applicable.

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. Contain spill. Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up. 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. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid eye contact with dust or airborne particles. Avoid prolonged or repeated skin contact.

7.2 STORAGE

Not applicable.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Not applicable. 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.

Page 3 of 7

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

•

8.2.2 Skin Protection

Avoid skin contact. 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. Gloves not normally required.

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 eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Not applicable. Do not ingest.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	Authority	Type	<u>Limit</u>	Additional Information
CALCIUM HYDROXIDE	ACGIH	TWA	5 mg/m3	
CALCIUM HYDROXIDE	OSHA	TWA, respirable fraction	5 mg/m3	
CALCIUM HYDROXIDE	OSHA	TWA, as total dust	15 mg/m3	
SILANIZED GLASS POWDER	Manufacturer	TWA, as dust	10 mg/m3	
	determined			
PERSULFATE COMPOUNDS	ACGIH	TWA, as persulfate	0.1 mg/m3	
TITANIUM DIOXIDE	ACGIH	TWA	10 mg/m3	
TITANIUM DIOXIDE	CMRG	TWA, as respirable	5 mg/m3	
		dust		
TITANIUM DIOXIDE	OSHA	TWA, as total dust	15 mg/m3	

SOURCE OF EXPOSURE LIMIT DATA:

Vapor Density

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: Powder

Odor, Color, Grade: Odorless powders of different colors.

General Physical Form: Solid

Autoignition temperatureNot ApplicableFlash PointNot ApplicableFlammable Limits(LEL)No Data AvailableFlammable Limits(UEL)No Data AvailableBoiling PointNot ApplicableDensity> 1 g/ml

Vapor Pressure Not Applicable

Specific GravityNo Data AvailablepHNot Applicable

Page 4 of 7

Not Applicable

Melting point No Data Available

Solubility in WaterNegligibleEvaporation rateNot ApplicableKow - Oct/Water partition coefNo Data AvailableViscosityNot Applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

None known

10.2 Materials to avoid

None known

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

SubstanceConditionNone known.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: For quantities <100 lbs. (50kg): dispose of waste product in a sanitary landfill. For larger quantities: incinerate in an industrial or commercial facility 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

LE-FSF6-5681-1, LE-FSF6-5681-2, LE-FSFD-5682-2

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 - Yes

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	Classification
TITANIUM DIOXIDE	13463-67-7	**Carcinogen

^{**} WARNING: contains a chemical which can cause cancer.

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: 0 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 3: Potential effects from skin contact information was modified.

Section 3: Potential effects from inhalation information was modified.

Section 13: Waste disposal method information was modified.

Page 6 of 7

- Section 2: Ingredient table was modified.
- Section 8: Exposure guidelines ingredient information was modified.
- Section 3: Carcinogenicity table was modified.
- Section 15: California proposition 65 ingredient information was modified.
- Section 6: Personal precautions information was modified.
- Section 6: Environmental procedures information was modified.
- Section 6: Methods for cleaning up information was modified.
- Copyright 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

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

MSDS Manufacturer Number: 18-0262-8

MANUFACTURER NAME: 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)

ISSUED: SUPERSEDES: 02/24/10 09/10/03

Specific Use:

Dental universal luting material.

Intended Use:

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

http://www.actiocms.com/VIEW_MSDS/searchdetail.cfm?msds_id=671611&Language=1... 1/9/2013

Actiocms.com Page 8 of 12

ADDRESS: 3M Center ADDRESS CITY: St. Paul, ADDRESS STATE:

ADDRESS 7TD. 55144-1000

BUSINESS PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours) PRODUCT NAME: 3M ESPE RelyX Unicem Aplicap/Maxicap Powder

TRADE NAME: 3MTM ESPETM RelyXTM UnicemTM Aplicap/Maxicap Powder

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ngredient Name	CAS#	Ingredient Percent
SILANIZED GLASS POWDER	65997-17-3	85 - 95 by Weight
SILANE TREATED SILICA	122334-95-6	5 - 10 by Weight
UBSTITUTED PYRIMIDINE	Trade Secret	1 - 5 by Weight
ALCIUM HYDROXIDE	1305-62-0	1 - 5 by Weight
ODIUM PERSULFATE	7775-27-1	< 1 by Weight

SECTION 3 - HAZARDS IDENTIFICATION

Specific Physical Form: Powder

Odor, Color, Grade: Odorless powders of different colors.

General Physical Form:

Immediate health, physical, and environmental hazards:

May cause allergic skin reaction. May cause allergic respiratory reaction. 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.

EYE CONTACT: Mechanical eye irritation: Signs/symptoms may include pain, redness,

tearing and corneal abrasion.

SKIN CONTACT: Mechanical Skin irritation: Signs/symptoms may include abrasion,

redness, pain, 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. Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

INGESTION: Gastrointestinal Irritation: Signs/symptoms may include abdominal

pain, stomach upset, nausea, vomiting and diarrhea.

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

Carcinogenicity of Ingredients: GLASSWOOL FIBERS (AIRBORNE PARTICLES OF RESPIRABLE SIZE):

(CAS: NONE; Class Description: Grp. 2B: Possible human carc.;

Regulation: International Agency for Research on Cancer;) GLASSWOOL FIBERS (AIRBORNE PARTICLES OF RESPIRABLE SIZE): (CAS: NONE; Cass Description: Anticipated human carcinogen; Regulation: National

Toxicology Program Carcinogens;)

SECTION 4 - FIRST AID MEASURES

Flush eyes with large amounts of water. If signs/symptoms persist, get **EYE CONTACT:**

medical attention.

Remove contaminated clothing and shoes. Immediately flush skin with SKIN CONTACT:

large amounts of water. Get medical attention. Wash contaminated

clothing and clean shoes before reuse.

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

attention.

Actiocms.com Page 9 of 12

INGESTION: 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.

First Aid Comments: The following first aid recommendations are based on an assumption

that appropriate personal and industrial hygiene practices are followed.

SECTION 5 - FIRE FIGHTING MEASURES

AUTOIGNITION TEMPERATURE: Not Applicable

FLASH POINT:

Not Applicable No Data Available

FLAMMABLE LIMITS - LEL: FLAMMABLE LIMITS - UFL:

No Data Available Non-combustible. Choose material suitable for surrounding fire.

EXTINGUISHING MEDIA: SPECIAL FIRE FIGHTING PROCEDURES:

Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

UNUSUAL FIRE AND

Not applicable.

EXPLOSION HAZARDS: Note:

See STABILITY AND REACTIVITY (SECTION 10) for hazardous

combustion and thermal decomposition information.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Evacuate unprotected and untrained personnel from hazard area. The

spill should be cleaned up by qualified personnel. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. 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. Use wet sweeping compound or water to avoid dusting. Sweep up. 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

HANDLING: Avoid eye contact. Avoid prolonged or repeated skin contact.

STORAGE: Not applicable.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE

GUIDELINES

Guideline Info: 10 mg/m3

Ingredient: PERSULFATE COMPOUNDS Guideline Type: ACGIH TWA, as persulfate

Guideline Info: 0.1 mg/m3

OSHA TWA, as total dust **Guideline Type:**

Guideline Info: 15 mg/m3

SILANIZED GLASS POWDER Ingredient:

3M TWA, as dust Guideline Type: Ingredient: **CALCIUM HYDROXIDE**

ACGIH TWA Guideline Type: Guideline Info: 5 mg/m3

CALCIUM HYDROXIDE Ingredient:

OSHA TWA, respirable fraction **Guideline Type:**

Guideline Info: 5 mg/m3

CALCIUM HYDROXIDE Ingredient:

Prevention of Swallowing: Not applicable. Do not ingest.

ACGIH: American Conference of Governmental Industrial Hygienists SOURCE OF EXPOSURE LIMIT

CMRG: Chemical Manufacturer Recommended Guideline OSHA: DATA: Occupational Safety and Health Administration AIHA: American

Industrial Hygiene Association Workplace Environmental Exposure Level

Odor, Color, Grade: Odorless powders of different colors.

General Physical Form: Solid

Autoignition temperature: Not Applicable

Flash Point:

Flammable Limits - LEL:

Flammable Limits - UEL:

BOILING POINT:

Not Applicable

Not Applicable

DENSITY: > 1 g/ml

VAPOR DENSITY: Not Applicable

VAPOR PRESSURE: Not Applicable

SPECIFIC GRAVITY: No Data Available

ph: Not Applicable

MELTING POINT: No Data Available
EVAPORATION RATE: Not Applicable
VISCOSITY: Not Applicable

SOLUBILITY IN WATER: Negligible
Specific Physical Form: Powder

Kow - Oct/Water partition No Data Available

coef:

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: 10.1 Conditions to avoid None known 10.2 Materials to avoid None

known

HAZARDOUS Hazardous polymerization will not occur. POLYMERIZATION:

HAZARDOUS DECOMPOSITION Substance: None known. (Condition: During Combustion)

PRODUCTS:

SECTION 11 - TOXICOLOGICAL INFORMATION

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 Not determined. INFORMATION:

CHEMICAL FATE Not determined. INFORMATION:

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Incinerate in an industrial or commercial facility in the presence of a

combustible material. For quantities <100 lbs. (50kg): dispose of waste product in a sanitary landfill. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste. Since

regulations vary, consult applicable regulations or authorities before

disposal.

http://www.actiocms.com/VIEW MSDS/searchdetail.cfm?msds id=671611&Language=1... 1/9/2013

van apsemer weige som e * 49 AMELS ma the state of the s

information was modified. Section 8: 5xin protection phrase was modified. Section 8: Prevention of swallowing information was modified. Section 13: Waste disposal method information was modified. Section 15: 311/312 hazard categories heading was modified. Section 15: International regulations information was modified. Section 15: State regulations information was modified. Section 15: US federal regulations information was modified. Section 4: First aid for skin contact - decontamination - was modified. Section 4: First aid for skin contact - medical assistance - was modified. Section 4: First aig ros inhalation - termination of exposure - was modified. Section 10: Hazardous polymerization heading was modified. Section 16: NFPA explanation was modified. Page Heading: Product name was modified. Section 15: 311/312 Delayed Hazard score was modified. Section 15: Inventories information was modified. Section 12: Ecotoxicological information heading was modified. Section 12: Chemical fate information heading was modified. Section 16: NFPA hazard classification for special hazards was modified. Section 12: Ecotoxicological phrase was modified. Section 12: Chemical Fate phrase was modified. Section 3: Immediate inhalation hazard(s) was added. Section 3: Immediate skin hazard(s) was added. Section 4: First aid for skin contact - termination of exposure - was added. Section 4: First aid for skin contact - handling - was added. Section 3: Carcinogenicity phrase was added. Section 3: Immediate other hazard(s) was added. Section 9: Property description for optional properties was added. Section 2: Ingredient phrase 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 3: Carcinogenicity table was added. Section 3: Carcinogenicity heading was added. Section 15: California proposition 65 ingredient information was added. Section 15: California proposition 65 heading was added. Section 15: California proposition 6S cancer warning was added. Section 10.1 Conditions to avoid was added. Section 10.2 Materials to avoid was added. Section 6: Release measures information was added. Section 6: Release measures information was added. Section 6: Release measures information was added, Section 10; Materials to avoid physical property was added. Section 10: Conditions to avoid physical property was added. Section 8: Skin/ hand protection phrase was added. Section 3: Other potential health effects heading was deleted. Section 4: First aid for eye contact - termination of exposure - was deleted. Section 6: Release measures information was deleted. Section 10: Materials and conditions to avoid physical property was deleted. Section 3: Immediate other hazard(s) comment was deleted. Section 3: Other potential health effects was deleted.



Safety Data Sheet

Copyright, 2015, 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.

 Document Group:
 17-9608-5
 Version Number:
 6.00

 Issue Date:
 03/03/15
 Supercedes Date:
 02/20/13

SECTION 1: Identification

1.1. Product identifier

 $3M^{TM}$ ESPE TM RELYX TM UNICEM TM APLICAP/MAXICAP LIQUID

Product Identification Numbers

LE-FSF6-5681-0. LE-FSFD-5682-1

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, For use by dental professionals.

1.3. Supplier's details

MANUFACTURER: 3M

DIVISION: 3M ESPE Dental Products

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

Flammable Liquid: Category 4.

Serious Eye Damage/Irritation: Category 1.

Skin Sensitizer: Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Corrosion | Exclamation mark |

Page 1 of 9

Pictograms





Hazard Statements

Combustible liquid.

Causes serious eye damage.

May cause an allergic skin reaction.

Precautionary Statements

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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

Wear protective gloves and eye/face protection.

Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF ON SKIN: Wash with plenty of soap and water.

Immediately call a POISON CENTER or doctor/physician.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

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

Ingredient	C.A.S. No.	% by Wt
mixture of mono-, di- and tri-glycerin-dimethacrylate-	1224866-76-5	40 - 50 Trade Secret *
ester of phosphoric acid		
TRIETHYLENE GLYCOL DIMETHACRYLATE	109-16-0	25 - 35 Trade Secret *
SUBSTITUTED DIMETHACRYLATE	27689-12-9	20 - 30 Trade Secret *
COPPER ACETATE	6046-93-1	< 0.2 Trade Secret *

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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 flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

SubstanceConditionCarbon monoxideDuring CombustionCarbon dioxideDuring Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Contain spill. Collect as much of the spilled material as possible using non-sparking tools. Seal the container. Dispose of collected material as soon as possible.

Page 3 of 9

SECTION 7: Handling and storage

7.1. Precautions for safe handling

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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. Avoid release to the environment. 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 in a well-ventilated place. Keep cool. Store away from heat. Store away from acids. 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.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
COPPER COMPOUNDS	6046-93-1	ACGIH	TWA(as Cu dust or mist):1	
			mg/m3;TWA(as Cu, fume):0.2	
			mg/m3	

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

Page 4 of 9

9.1. Information on basic physical and chemical properties

General Physical Form: Liquid **Specific Physical Form:** Liquid

Odor, Color, Grade: Clear yellow liquid with acrylate odor.

Odor threshold No Data Available

pH 2.3

Melting point No Data Available

Boiling Point > 200 °F

Flash Point 64 °C [Test Method: Tagliabue Closed Cup]

Evaporation rateNo Data AvailableFlammability (solid, gas)Not ApplicableFlammable Limits(LEL)No Data AvailableFlammable Limits(UEL)No Data AvailableVapor PressureNo Data AvailableVapor DensityNo Data Available

Density 1.14 g/ml

Specific Gravity 1.14 [Ref Std: WATER=1]

Solubility In Water < 63 g/l

Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperatureNo Data AvailableDecomposition temperatureNo Data AvailableViscosityNo Data AvailablePercent volatileNo Data Available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

<u>Substance</u> <u>Condition</u>

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be

Page 5 of 9

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:

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

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.

Ingestion:

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid	Ingestion	Rat	LD50 > 2,000 mg/kg
TRIETHYLENE GLYCOL DIMETHACRYLATE	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
TRIETHYLENE GLYCOL DIMETHACRYLATE	Ingestion	Rat	LD50 10,837 mg/kg
SUBSTITUTED DIMETHACRYLATE	Dermal	Professio nal judgeme nt	LD50 not applicable
SUBSTITUTED DIMETHACRYLATE	Ingestion	Rat	LD50 > 17,600 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid	Rabbit	Minimal irritation
TRIETHYLENE GLYCOL DIMETHACRYLATE	Guinea	Mild irritant
	pig	
SUBSTITUTED DIMETHACRYLATE	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid	Rabbit	Corrosive
TRIETHYLENE GLYCOL DIMETHACRYLATE	Professio	Moderate irritant
	nal	
	judgeme	
	nt	
SUBSTITUTED DIMETHACRYLATE	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid	Guinea	Not sensitizing
	pig	
TRIETHYLENE GLYCOL DIMETHACRYLATE	Human	Sensitizing
	and	
	animal	
SUBSTITUTED DIMETHACRYLATE	Guinea	Not sensitizing
	pig	

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
mixture of mono-, di- and tri-glycerin-dimethacrylate-ester of phosphoric acid	In Vitro	Not mutagenic
TRIETHYLENE GLYCOL DIMETHACRYLATE	In Vitro	Some positive data exist, but the data are not sufficient for classification
SUBSTITUTED DIMETHACRYLATE	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
TRIETHYLENE GLYCOL DIMETHACRYLATE	Dermal	Mouse	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Route	Value	Species	Test Result	Exposure Duration
Ingestion	Not toxic to female reproduction	Mouse	NOAEL 1	1 generation
Ingestion	Not toxic to male reproduction	Mouse	NOAEL 1	1 generation
Ingestion	Not toxic to development	Mouse	NOAEL 1	1 generation
'n	gestion gestion	gestion Not toxic to female reproduction gestion Not toxic to male reproduction	gestion Not toxic to female reproduction Mouse gestion Not toxic to male reproduction Mouse	gestion Not toxic to female reproduction Mouse NOAEL 1 mg/kg/day gestion Not toxic to male reproduction Mouse NOAEL 1 mg/kg/day

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
TRIETHYLENE GLYCOL DIMETHACRYLATE	Dermal	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 833 mg/kg/day	78 weeks
TRIETHYLENE GLYCOL DIMETHACRYLATE	Dermal	blood	All data are negative	Mouse	NOAEL 833 mg/kg/day	78 weeks

Aspiration Hazard

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

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

SECTION 12: Ecological information

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

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

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

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.

California Proposition 65

Ingredient	C.A.S. No.	Classification
Toluene	108-88-3	Female reproductive toxin
Toluene	108-88-3	Developmental Toxin

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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: 3 Flammability: 2 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.

 Document Group:
 17-9608-5
 Version Number:
 6.00

 Issue Date:
 03/03/15
 Supercedes Date:
 02/20/13

DISCLAIMER: The information in this Safety Data Sheet (SDS) 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 SDS available directly from 3M

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