



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ ESPET™ RelyX™ UNICEM 2 CLICKER™ Base Paste

**MANUFACTURER:** 3M

**DIVISION:** 3M ESPE Dental Products

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

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

**Issue Date:** 03/15/12

**Supersedes Date:** 02/02/11

**Document Group:** 29-2266-4

#### Product Use:

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

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
SILANE TREATED GLASS POWDER	None	45 - 55
2-PROPENOIC ACID, 2-METHYL-, 1,1'-[1-(HYDROXYMETHYL)-1,2-ETHANEDIYL] ESTER, REACTION PRODUCTS WITH 2-HYDROXY-1,3-PROPANEDIYL DIMETHACRYLATE AND PHOSPHORUS OXIDE	1224866-76-5	20 - 30
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	109-16-0	10 - 20
SILANE TREATED SILICA	68909-20-6	1 - 10
SODIUM PERSULFATE	7775-27-1	< 3
GLASS POWDER	65997-17-3	< 3
TERT-BUTYL PEROXY-3,5,5-TRIMETHYLHEXANOATE	13122-18-4	< 0.5

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Paste

**Odor, Color, Grade:** toothcolored paste with slight acrylic odor

**General Physical Form:** Solid

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

Contact with the eyes during product use is not expected to result in significant irritation.

**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:**

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

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

*No flash point*

Flammable Limits(LEL)

*No Data Available*

Flammable Limits(UEL)

*No Data Available*

### 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:** 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.

### 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. 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 skin contact. Wash hands after handling and before eating. 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 eye contact with dust or airborne particles.

### 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 in an enclosed process area is recommended. 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.

### 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. Wash hands after handling and before eating.

## 8.3 EXPOSURE GUIDELINES

<u>Inгредиент</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
GLASS POWDER	Manufacturer determined	TWA, as dust	10 mg/m3	
PERSULFATE COMPOUNDS	ACGIH	TWA, as persulfate	0.1 mg/m3	

### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	toothcolored paste with slight acrylic odor
<b>General Physical Form:</b>	Solid
<b>Autoignition temperature</b>	No Data Available
<b>Flash Point</b>	No flash point
<b>Flammable Limits(LEL)</b>	No Data Available
<b>Flammable Limits(UEL)</b>	No Data Available
<b>Boiling Point</b>	No Data Available
<b>Density</b>	2 - 2.2 g/cm3
<b>Vapor Density</b>	No Data Available
<b>Vapor Pressure</b>	No Data Available
<b>Specific Gravity</b>	2 - 2.2 [Ref Std: WATER=1]
<b>pH</b>	Not Applicable
<b>Melting point</b>	No Data Available
<b>Solubility in Water</b>	Negligible
<b>Evaporation rate</b>	No Data Available
<b>Kow - Oct/Water partition coef</b>	No Data Available
<b>Viscosity</b>	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**

None known

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

**Hazardous Decomposition or By-Products**

**Substance**

Carbon monoxide  
Carbon dioxide  
Irritant Vapors or Gases

**Condition**

During Combustion  
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:** 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-F100-0912-3

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: 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 1: Product use information was modified.  
Section 16: Disclaimer (second paragraph) was modified.  
Section 3: Potential effects from skin contact information was modified.  
Section 3: Potential effects from inhalation information was modified.  
Section 7: Handling information was modified.  
Section 7: Storage information was modified.  
Section 8: Engineering controls information was modified.  
Section 8: Prevention of swallowing 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 text was modified.  
Section 9: Flash point information was modified.  
Section 9: Flammable limits (LEL) information was modified.  
Section 9: Flammable limits (UEL) information was modified.  
Section 9: Autoignition temperature information was modified.  
Section 2: Ingredient table was modified.  
Section 8: Exposure guidelines ingredient information was modified.  
Section 6: Methods for cleaning up information was modified.  
Section 16: Web address 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 1: Address line 1 was deleted.  
Section 1: Address line 2 was deleted.

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