



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M FILTEK Z250 UNIVERSAL RESTORATIVE 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: 05/08/2008

Supersedes Date: 10/18/2007

Document Group: 08-2286-6

Product Use:

Intended Use: Dental product
Limitations on Use: For use only by dental professionals
Specific Use: Dental restorative

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
SILANE TREATED CERAMIC	444758-98-9	75 - 85
BISPHENOL A POLYETHYLENE GLYCOL DIETHER DIMETHACRYLATE (BISMA6)	41637-38-1	5 - 10
DIURETHANE DIMETHACRYLATE	72869-86-4	5 - 10
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	1565-94-2	1 - 10
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	109-16-0	< 5
WATER	7732-18-5	< 2

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Paste

Odor, Color, Grade: Slight acrylate odor, various shades

General Physical Form: Solid

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

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:

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

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

Inhalation:

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

Ingestion:

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

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

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

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature

No Data Available

Flash Point

Not Applicable

Flammable Limits - LEL

Not Applicable

Flammable Limits - UEL

Not Applicable

5.2 EXTINGUISHING MEDIA

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

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Non-flammable; ordinary combustible material.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Ventilate the area with fresh air. Collect as much of the spilled material as possible. Clean up residue. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. 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. 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 in a cool place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Not applicable.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact.

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

8.2.2 Skin Protection

Avoid skin contact. See Sect. 7.1 for more information about skin protection.

8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

8.2.4 Prevention of Swallowing

Do not ingest.

8.3 EXPOSURE GUIDELINES

None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Paste
Odor, Color, Grade:	Slight acrylate odor, various shades
General Physical Form:	Solid
Autoignition temperature	No Data Available
Flash Point	Not Applicable
Flammable Limits - LEL	Not Applicable
Flammable Limits - UEL	Not Applicable
Boiling point	Not Applicable
Density	No Data Available
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Specific Gravity	2.1 [Ref Std: WATER=1]
pH	Not Applicable
Melting point	No Data Available
Solubility in Water	Nil
Evaporation rate	Nil
Volatile Organic Compounds	No Data Available
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	No Data Available
Viscosity	Approximately 300000 centipoise

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: None known

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 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

ID Number(s):

LE-F100-0078-3, 41-5300-6441-3, 70-2010-2225-1, 70-2010-2226-9, 70-2010-2227-7, 70-2010-2228-5, 70-2010-2229-3, 70-2010-2230-1, 70-2010-2231-9, 70-2010-2232-7, 70-2010-2233-5, 70-2010-2234-3, 70-2010-2235-0, 70-2010-2236-8, 70-2010-2237-6, 70-2010-2238-4, 70-2010-2241-8, 70-2010-2242-6, 70-2010-2243-4, 70-2010-2244-2, 70-2010-2245-9, 70-2010-2246-7, 70-2010-2247-5, 70-2010-2248-3, 70-2010-2249-1, 70-2010-2250-9, 70-2010-2251-7, 70-2010-2252-5, 70-2010-2253-3, 70-2010-2254-1, 70-2010-2259-0, 70-2010-2260-8, 70-2010-2564-3, 70-2010-2565-0, 70-2010-2566-8, 70-2010-2567-6, 70-2010-2568-4, 70-2010-2569-2, 70-2010-2570-0, 70-2010-2571-8, 70-2010-2572-6, 70-2010-2573-4, 70-2010-2574-2, 70-2010-2575-9, 70-2010-2576-7, 70-2010-2577-5, 70-2010-2578-3, 70-2010-2585-8, 70-2010-2586-6, 70-2010-2587-4, 70-2010-2588-2, 70-2010-2589-0, 70-2010-2590-8, 70-2010-2591-6, 70-2010-2592-4, 70-2010-2593-2, 70-2010-2594-0, 70-2010-2595-7, 70-2010-2596-5, 70-2010-2597-3, 70-2010-2598-1, 70-2010-2599-9, 70-2010-2700-3, 70-2010-2702-9, 70-2010-2703-7, 70-2010-2704-5, 70-2010-2707-8, 70-2010-2708-6, 70-2010-2709-4, 70-2010-2710-2, 70-2010-2711-0, 70-2010-2712-8, 70-2010-2713-6, 70-2010-2714-4, 70-2010-2715-1, 70-2010-2716-9, 70-2010-2717-7, 70-2010-2718-5, 70-2010-2723-5, 70-2010-2724-3, 70-2010-2725-0, 70-2010-2726-8, 70-2010-3118-7, 70-2010-3135-1, 70-2010-3177-3, 70-2010-3178-1, 70-2010-3195-5, 70-2010-3196-3, 70-2010-3197-1, 70-2010-3198-9, 70-2010-3200-3, 70-2010-3201-1, 70-2010-3202-9, 70-2010-3203-7, 70-2010-3232-6, 70-2010-3278-9, 70-2010-3279-7, 70-2010-3788-7, 70-2010-5064-1, 70-2010-5200-1, 70-2010-5201-9, 70-2010-5202-7, 70-2010-5203-5, 70-2010-5204-3, 70-2010-5205-0, 70-2010-5206-8, 70-2010-5207-6, 70-2010-5208-4, 70-2010-5209-2, 70-2010-5210-0, 70-2010-5211-8, 70-2010-5212-6, 70-2010-5213-4, 70-2010-5214-2, 70-2010-5215-9, 70-2010-5216-7, 70-2010-5217-5, 70-2010-5218-3, 70-2010-5219-1, 70-2010-5565-7

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: 2 Flammability: 1 Reactivity: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:

Copyright was modified.

Section 2: Ingredient table was modified.

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

MATERIAL SAFETY DATA SHEET

MAXCEM ELITE Permanent Dental Cement

1 - IDENTIFICATION

Manufacturer: Kerr Corporation
Address: 1717 West Collins Avenue
City, State, Zip: Orange, CA 92867-5422
Telephone: 1-800-KERR-123
Emergency: Chemtrec 1-800-424-9300
Date Prepared: December, 2007

2 - COMPOSITION INFORMATION

Hazardous Ingredients

	CAS #	PEL	TLV	%
Uncured Methacrylate Ester Monomers	109-16-0	N/A	N/A	19-40

Other Ingredients

Non-hazardous inert mineral fillers, Ytterbium Fluoride, activators, stabilizers and colorants

3 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/D
Specific Gravity ($H_2O = 1$): 2.5
Vapor Pressure (mm Hg): N/D
Melting Point: N/D
Vapor Density (AIR = 1): N/D
Solubility in Water: Insoluble
Reactivity in Water: N/A
Appearance and Odor: Colored paste with slight peppermint odor.

4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): N/D
Flammable Limits: LEL: N/A UEL: N/D
Extinguishing Media: Chemical foam, CO_2 , dry chemical
Special Fire Fighting Procedures: Wear self contained breathing apparatus.
Unusual Fire and Explosion Hazards: Heat can cause polymerization with rapid release of energy.

5 - REACTIVITY DATA

Stability: Stable if stored as directed.
Incompatibility (Material to Avoid): Reducing and oxidizing agents, peroxides and amines.
Hazardous Decomposition Products: Oxides of carbon
Hazardous Polymerization: May Occur
Conditions to Avoid: Heat, light, aging and sources of contamination.

6 - HEALTH HAZARD DATA

Routes of Entry:
Skin: Prolonged or repeated exposure to uncured material may cause irritation or skin rash especially in sensitive individuals.
Eyes: May cause irritation and damage if not removed promptly.
Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.
Ingestion: Uncured material may be harmful if swallowed.
Carcinogenicity - NTP: No

IARC Monographs: No

OSHA Regulated Carcinogen: No

7 - EMERGENCY FIRST AID PROCEDURES

Skin: Wash thoroughly with soap and water.
Eyes: Flush with water for 15 minutes including under eyelids.
Inhalation: Remove to fresh air. Get medical attention if discomfort persists.
Ingestion: Rinse mouth out with water. Do not induce vomiting. Seek medical attention.

8 - PRECAUTIONS FOR SAFE HANDLING & USE

Steps to be taken in case material is released or spilled: Absorb spills with inert material. Keep spilled material out of sewers.
Waste Disposal Method: Unpolymerized (uncured) material may be RCRA hazardous waste. Incinerate uncured material in accordance with all federal, state and local regulations.
Precautions to be taken in handling and storing: Store in a cool, dry place away from heat light and ignition.

9 - CONTROL MEASURES

Respiratory Protection (Specify Type): Avoid prolonged or excessive breathing of vapors of uncured material.
VENTILATION:
Local Exhaust: Good general ventilation should be sufficient to control airborne levels of vapors released by uncured material.
Mechanical (General): Good general ventilation recommended.
Protective Gloves: Protective gloves recommended when contacting uncured material.
Eye Protection: Safety glasses recommended.
Other Protective Clothing or Equipment: N/A
Work/Hygiene Practices: Handle in accordance with good personal hygiene and safety practices. These practices include avoiding unnecessary exposure to uncured material.

10 - TRANSPORTATION INFORMATION

Not regulated.

11 - SPECIAL INFORMATION

HMIS (Hazardous Material Identification System) Rating:
H2 F1 R2 PPE-Gloves and safety glasses. Hazard information relates only to uncured material.
[HMIS Index: 4 - Severe Hazard; 3 - Serious Hazard;
2 - Moderate Hazard; 1 - Slight Hazard; 0 - Minimum Hazard]

Note: Hazard information contained on this MSDS form relates only to material in its uncured state. Thorough biocompatibility and toxicity testing of the cured material and its extracts have demonstrated that the material is non-toxic.

Note: This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product. The information in this MSDS is, to the best of our knowledge, believed to be accurate.