

# Safety Data Sheet

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# **SECTION 1: Identification**

# 1.1. Product identifier

 $6032/6033~3M^{TM}$  ESPETM FILTEKTM SUPREME ULTRA FLOWABLE RESTORATIVE

#### **Product Identification Numbers**

70-2010-7746-1, 70-2010-7747-9, 70-2010-7748-7, 70-2010-7749-5, 70-2010-7750-3, 70-2010-7751-1, 70-2010-7752-9, 70-2010-7753-7, 70-2010-7754-5, 70-2010-7755-2, 70-2010-7756-0, 70-2010-7757-8, 70-2010-7758-6, 70-2010-7759-4, 70-2010-7760-2, 70-2010-7761-0, 70-2010-7762-8, 70-2010-7763-6, 70-2010-7764-4, 70-2010-7765-1, 70-2010-7766-9, 70-2010-7767-7, 70-2010-7768-5, 70-2010-7769-3, 70-2010-7770-1, 70-2010-7771-9, 70-2014-0256-0, 70-2014-0257-8, 70-2014-0258-6, 70-2014-0259-4, 70-2014-0260-2, 70-2014-0261-0, 70-2014-0262-8, 70-2014-0263-6, 70-2014-0264-4, 70-2014-0265-1, 70-2014-0266-9, 70-2014-0267-7

## 1.2. Recommended use and restrictions on use

#### Recommended use

Dental product, Composite restorative material

#### Restrictions on use

For use only by dental professionals

# 1.3. Supplier's details

MANUFACTURER: 3M

**DIVISION:** Oral Care Solutions Division

**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

Serious Eye Damage/Irritation: Category 2B.

Skin Sensitizer: Category 1.

# 2.2. Label elements

# Signal word

Warning

### **Symbols**

Exclamation mark |

## **Pictograms**



### **Hazard Statements**

Causes eye irritation.

May cause an allergic skin reaction.

### **Precautionary Statements**

### **Prevention:**

Wear protective gloves.

Wash thoroughly after handling.

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 eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

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

Wash contaminated clothing before reuse.

## 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
SILANE TREATED CERAMIC	444758-98-9	50 - 60 Trade Secret *
SUBSTITUTED DIMETHACRYLATE	27689-12-9	15 - 25 Trade Secret *
BISPHENOL A DIGLYCIDYL ETHER	1565-94-2	5 - 10 Trade Secret *
DIMETHACRYLATE (BISGMA)		
SILANE TREATED SILICA	248596-91-0	5 - 10 Trade Secret *
TRIETHYLENE GLYCOL DIMETHACRYLATE	109-16-0	5 - 10 Trade Secret *
(TEGDMA)		
Ytterbium fluoride (YbF3)	13760-80-0	< 5 Trade Secret *
REACTED POLYCAPROLACTONE POLYMER	None	< 2 Trade Secret *
ETHYL 4-DIMETHYL AMINOBENZOATE (EDMAB)	10287-53-3	< 0.5 Trade Secret *
BENZOTRIAZOL	96478-09-0	< 0.5 Trade Secret *
DIPHENYLIODONIUM HEXAFLUOROPHOSPHATE	58109-40-3	< 0.5 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:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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 ordinary combustible material such as water or foam to extinguish.

## 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### **Hazardous Decomposition or By-Products**

Substance
Carbon monoxide
Carbon dioxide

**Condition** 

During Combustion
During Combustion

# **5.3.** Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. 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. 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

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

# **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. 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. Wash contaminated clothing before reuse. Do not get in eyes.

## 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

# **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	<b>Additional Comments</b>
FLUORIDES	13760-80-0	ACGIH	TWA(as F):2.5 mg/m3	A4: Not class. as human carcin
FLUORIDES	13760-80-0		TWA(as dust):2.5 mg/m3;TWA(as F):2.5 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**

# 9.1. Information on basic physical and chemical properties

General Physical Form:

Solid
Specific Physical Form:

Paste

Odor, Color, Grade: Slight acrylate odor, tooth-colored various shade

**Odor threshold** No Data Available Hα Not Applicable Melting point No Data Available **Boiling Point** Not Applicable **Flash Point** No flash point **Evaporation rate** Not Applicable Not Classified Flammability (solid, gas) Flammable Limits(LEL) Not Applicable Not Applicable Flammable Limits(UEL) **Vapor Pressure** Not Applicable Not Applicable **Vapor Density** 1.5 g/cm3 **Density** 

Specific Gravity 1.5 [Ref Std: WATER=1]

Solubility in Water Negligible Solubility- non-water No Data Available Partition coefficient: n-octanol/ water Not Applicable **Autoignition temperature** No Data Available **Decomposition temperature** No Data Available Viscosity No Data Available Molecular weight No Data Available **VOC Less H2O & Exempt Solvents** No 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

None known.

# 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 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:**

This product may have a characteristic odor; however, no adverse health effects are anticipated.

#### **Skin Contact:**

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### Eye Contact:

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

#### **Ingestion:**

May be harmful if swallowed.

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	Dermal	_	No data available; calculated ATE > 5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
SILANE TREATED CERAMIC	Dermal		LD50 estimated to be > 5,000 mg/kg
SILANE TREATED CERAMIC	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
SUBSTITUTED DIMETHACRYLATE	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
SUBSTITUTED DIMETHACRYLATE	Ingestion	Rat	LD50 > 17,600 mg/kg
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
SILANE TREATED SILICA	Dermal		LD50 estimated to be > 5,000 mg/kg
SILANE TREATED SILICA	Ingestion		LD50 estimated to be > 5,000 mg/kg
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg

TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Rat	LD50 10,837 mg/kg
Ytterbium fluoride (YbF3)	Dermal	Professio	LD50 estimated to be > 5,000 mg/kg
		nal	
		judgeme	
		nt	
Ytterbium fluoride (YbF3)	Ingestion	Rat	LD50 > 5,000 mg/kg
REACTED POLYCAPROLACTONE POLYMER	Dermal	Professio	LD50 estimated to be 2,000 - 5,000 mg/kg
		nal	
		judgeme	
		nt	
REACTED POLYCAPROLACTONE POLYMER	Ingestion	similar	LD50 estimated to be 2,000 - 5,000 mg/kg
		compoun	
		ds	
ETHYL 4-DIMETHYL AMINOBENZOATE (EDMAB)	Dermal	Rat	LD50 > 2,000 mg/kg
ETHYL 4-DIMETHYL AMINOBENZOATE (EDMAB)	Ingestion	Rat	LD50 > 2,000 mg/kg
DIPHENYLIODONIUM HEXAFLUOROPHOSPHATE	Ingestion	Rat	LD50 32 mg/kg

ATE = acute toxicity estimate

# **Skin Corrosion/Irritation**

Name	Species	Value
SILANE TREATED CERAMIC	similar	No significant irritation
	compoun	
	ds	
SUBSTITUTED DIMETHACRYLATE	Rabbit	No significant irritation
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Not	Minimal irritation
	available	
SILANE TREATED SILICA	Professio	No significant irritation
	nal	
	judgeme	
	nt	
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Guinea	Mild irritant
	pig	
ETHYL 4-DIMETHYL AMINOBENZOATE (EDMAB)	Rabbit	No significant irritation
DIPHENYLIODONIUM HEXAFLUOROPHOSPHATE	Rabbit	No significant irritation

Serious Eve Damage/Irritation

Name	Species	Value
Tunic	Species	, and
SILANE TREATED CERAMIC	similar	Mild irritant
<del></del>	compoun	
	ds	
SUBSTITUTED DIMETHACRYLATE	Rabbit	Mild irritant
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Not	Moderate irritant
	available	
SILANE TREATED SILICA	Professio	No significant irritation
	nal	
	judgeme	
	nt	
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Professio	Moderate irritant
	nal	
	judgeme	
	nt	
Ytterbium fluoride (YbF3)	Professio	Mild irritant
	nal	
	judgeme	
	nt	
ETHYL 4-DIMETHYL AMINOBENZOATE (EDMAB)	Rabbit	Mild irritant
DIPHENYLIODONIUM HEXAFLUOROPHOSPHATE	Rabbit	Mild irritant

# **Skin Sensitization**

Name	Species	Value
SILANE TREATED CERAMIC	similar	Some positive data exist, but the data are not
	compoun	sufficient for classification
	ds	

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SUBSTITUTED DIMETHACRYLATE	Guinea	Not sensitizing
	pig	
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Guinea	Sensitizing
	pig	
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Human	Sensitizing
	and	
	animal	

# **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
SUBSTITUTED DIMETHACRYLATE	In Vitro	Not mutagenic
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	In Vitro	Some positive data exist, but the data are not sufficient for classification
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	In Vitro	Some positive data exist, but the data are not sufficient for classification
DIPHENYLIODONIUM HEXAFLUOROPHOSPHATE	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
SILANE TREATED CERAMIC	Inhalation	similar	Some positive data exist, but the data are not
		compoun	sufficient for classification
		ds	
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Dermal	Mouse	Not carcinogenic

# **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion	Not toxic to female reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion	Not toxic to male reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion	Not toxic to development	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Not toxic to female reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Not toxic to male reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Not toxic to development	Mouse	NOAEL 1 mg/kg/day	1 generation

# Target Organ(s)

**Specific Target Organ Toxicity - single exposure** 

opeemie ranger organ	- Omicicy	mgie emposure				
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
DIPHENYLIODONIUM HEXAFLUOROPHOSPH	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for	Not available	Irritation Equivocal	
ATE			classification			

Specific Target Organ Toxicity - repeated exposure

Specific Target Organ Toxicity - repeated exposure										
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration				
SILANE TREATED	Inhalation	pulmonary fibrosis	Some positive data exist, but the	similar	NOAEL Not					

CERAMIC			data are not sufficient for classification	compoun ds	available	
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion	endocrine system   liver   nervous system   kidney and/or bladder	All data are negative	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	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 (TEGDMA)	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. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

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.

#### 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: 2 Flammability: 1 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.

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