

# Safety Data Sheet

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# **SECTION 1: Identification**

## 1.1. Product identifier

3M<sup>TM</sup> Filtek<sup>TM</sup> Supreme Flowable Restorative

#### **Product Identification Numbers**

 $70-2010-7758-6, 70-2010-7759-4, 70-2010-7760-2, 70-2010-7761-0, 70-2010-7762-8, 70-2010-7763-6, 70-2010-7764-4, 70-2010-7765-1, 70-2010-7766-9, 70-2010-7767-7, 70-2010-7768-5, 70-2010-7769-3, 70-2010-7771-9\\ 7000128929, 7000128930, 7000128932, 7000128931, 7000128933, 7000128934, 7000128935, 7000128936, 7000128937, 7000128938, 7000128939, 7000128940, 7000128941$ 

#### 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

Skin Sensitizer: Category 1.

Reproductive Toxicity: Category 1B.

#### 2.2. Label elements

Signal word

## Danger

# **Symbols**

Exclamation mark | Health Hazard |





#### **Hazard Statements**

May cause an allergic skin reaction. May damage fertility or the unborn child.

#### **Precautionary Statements**

#### **Prevention:**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Wear protective gloves.

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

# **Response:**

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.

IF exposed or concerned: Get medical advice/attention.

#### Disposal:

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

1% of the mixture consists of ingredients of unknown acute oral toxicity.

# **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 Dimethacrylate	1565-94-2	5 - 10 Trade Secret *
(BISGMA)		
Silane Treated Silica	248596-91-0	5 - 10 Trade Secret *
Triethylene Glycol Dimethacrylate (TEGDMA)	109-16-0	< 10 Trade Secret *
Poly[oxy(1-oxo-1,6-hexanediyl)], $\alpha,\alpha'$ -(oxydi-2,1-	220182-22-9	1 - 5 Trade Secret *
ethanediyl)bis[ $\omega$ -[[[[2-[(2-methyl-1-oxo-2-propen-1-		
yl)oxy]ethyl]amino]carbonyl]oxy]-		
Ytterbium Fluoride (YbF3)	13760-80-0	1 - 5 Trade Secret *
N,N-DIMETHYLBENZOCAINE	10287-53-3	< 0.3 Trade Secret *
Diphenyliodonium Hexafluorophosphate	58109-40-3	< 0.2 Trade Secret *

<sup>\*</sup>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:**

No need for first aid is anticipated.

#### If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

Allergic skin reaction (redness, swelling, blistering, and itching).

#### 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**

<u>Substance</u> Carbon monoxide Carbon dioxide

#### Condition

During Combustion
During Combustion

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

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## **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 in accordance with applicable local/regional/national/international regulations.

# **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 handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. 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. Use personal protective equipment (gloves, respirators, etc.) as required.

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

### **Eve/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

**Appearance** 

Physical state Solid Color Tooth

**Specific Physical Form:** Paste

Odor Slight Acrylate **Odor threshold** No Data Available Not Applicable nН Melting point No Data Available **Boiling Point** Not Applicable **Flash Point** No flash point **Evaporation rate** Not Applicable Flammability (solid, gas) Not Classified Flammable Limits(LEL) Not Applicable Flammable Limits(UEL) Not Applicable Vapor Pressure Not Applicable **Vapor Density** Not Applicable

Specific Gravity 1.5 [Ref Std:WATER=1]

1.5 g/cm3

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 No Data Available Viscosity Molecular weight No Data Available **VOC Less H2O & Exempt Solvents** No Data Available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

**Density** 

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

**Substance Condition** 

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:**

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

#### **Ingestion:**

May be harmful if swallowed.

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

May cause additional health effects (see below).

#### **Additional Health Effects:**

#### Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

#### **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 >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)	Dermal	Professio nal judgeme	LD50 estimated to be > 5,000 mg/kg

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		nt	
Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)	Ingestion	Rat	LD50 > 11,700 mg/kg
Triethylene Glycol Dimethacrylate (TEGDMA)	Dermal	Professio nal	LD50 estimated to be > 5,000 mg/kg
		judgeme	
		nt	
Triethylene Glycol Dimethacrylate (TEGDMA)	Ingestion	Rat	LD50 10,837 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
Ytterbium Fluoride (YbF3)	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Ytterbium Fluoride (YbF3)	Ingestion	Rat	LD50 > 5,000 mg/kg
N,N-DIMETHYLBENZOCAINE	Dermal	Rat	LD50 > 2,000 mg/kg
N,N-DIMETHYLBENZOCAINE	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 compoun ds	No significant irritation
Substituted Dimethacrylate	Rabbit	No significant irritation
Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)	Rabbit	No significant irritation
Triethylene Glycol Dimethacrylate (TEGDMA)	Guinea	Mild irritant
Silane Treated Silica	pıg Professio	Niift-iit-ti
Shane Treated Sinca	nal	No significant irritation
	judgeme	
	nt	
N,N-DIMETHYLBENZOCAINE	Rabbit	No significant irritation
Diphenyliodonium Hexafluorophosphate	Rabbit	No significant irritation

**Serious Eye Damage/Irritation** 

Name	Species	Value
Silane Treated Ceramic	similar compoun ds	Mild irritant
Substituted Dimethacrylate	Rabbit	Mild irritant
Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)	In vitro data	No significant irritation
Triethylene Glycol Dimethacrylate (TEGDMA)	Professio nal judgeme nt	Moderate irritant
Silane Treated Silica	Professio nal judgeme nt	No significant irritation
Ytterbium Fluoride (YbF3)	Professio nal judgeme nt	Mild irritant
N,N-DIMETHYLBENZOCAINE	Rabbit	No significant irritation
Diphenyliodonium Hexafluorophosphate	Rabbit	Mild irritant

# **Skin Sensitization**

Name	Species	Value
Silane Treated Ceramic	similar	Not classified
	compoun	

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	ds	
Substituted Dimethacrylate	Guinea	Not classified
	pig	
Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)	Mouse	Not classified
Triethylene Glycol Dimethacrylate (TEGDMA)	Human	Sensitizing
	and	
	animal	
N,N-DIMETHYLBENZOCAINE		Not classified

# **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	Not mutagenic		
Triethylene Glycol Dimethacrylate (TEGDMA)	In Vitro	Some positive data exist, but the data are not		
		sufficient for classification		
N,N-DIMETHYLBENZOCAINE	In vivo	Not mutagenic		
N,N-DIMETHYLBENZOCAINE	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 compoun ds	Some positive data exist, but the data are not sufficient for classification
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 classified for development	Rat	NOAEL 1,000 mg/kg/day	during gestation
Triethylene Glycol Dimethacrylate (TEGDMA)	Ingestion	Not classified for female reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
Triethylene Glycol Dimethacrylate (TEGDMA)	Ingestion	Not classified for male reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
Triethylene Glycol Dimethacrylate (TEGDMA)	Ingestion	Not classified for development	Mouse	NOAEL 1 mg/kg/day	1 generation
N,N-DIMETHYLBENZOCAINE	Ingestion	Not classified for female reproduction	Rat	NOAEL 600 mg/kg/day	premating into lactation
N,N-DIMETHYLBENZOCAINE	Ingestion	Not classified for development	Rat	NOAEL 50 mg/kg/day	premating into lactation
N,N-DIMETHYLBENZOCAINE	Ingestion	Toxic to male reproduction	Rat	NOAEL 50 mg/kg/day	53 days

# Target Organ(s)

Specific Target Organ Toxicity - single exposure

Specific Turget Organ	ronnerej s	ingic exposure				
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Diphenyliodonium Hexafluorophosphate	Inhalation	respiratory irritation	Not classified	Not available	Irritation Equivocal	

Specific Target Organ Toxicity - repeated exposure

Name Route Target Organ(s)	Value	Species	Test Result	Exposure
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						Duration
Silane Treated Ceramic	Inhalation	pulmonary fibrosis	Not classified	similar compoun ds	NOAEL Not available	
Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)	Ingestion	endocrine system   hematopoietic system   liver   heart   skin   gastrointestinal tract   bone, teeth, nails, and/or hair   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days
Triethylene Glycol Dimethacrylate (TEGDMA)	Dermal	kidney and/or bladder   blood	Not classified	Mouse	NOAEL 833 mg/kg/day	78 weeks
N,N- DIMETHYLBENZOCAIN E	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 74 mg/kg/day	28 days
N,N- DIMETHYLBENZOCAIN E	Ingestion	liver   heart   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	Not classified	Rat	NOAEL 900 mg/kg/day	28 days

## **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.

# **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.

#### EPCRA 311/312 Hazard Classifications:

Physical Hazards	
Not applicable	

# Health Hazards

Reproductive toxicity

Respiratory or Skin Sensitization

#### **Additional TSCA Information**

Components	CAS No	Additional Information
Silane Treated Silica	248596-91-0	Allowed use(s): Coating additive.

## 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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