

## Safety Data Sheet

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 16-2612-6
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 04/15/15
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**Product identifier** 

3M<sup>TM</sup> ESPE<sup>TM</sup> RAMITEC<sup>TM</sup>

**ID** Number(s):

70-2011-0292-1, 70-2011-0664-1

Recommended use

Dental Product, Dental impressions

Restrictions on use

For use only by dental professionals

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)

**Emergency telephone number** 

1-800-364-3577 or (651) 737-6501 (24 hours)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet (SDS), Article Information Sheet (AIS), or Article Information Letter (AIL) for each of these components is included. Please do not separate the component documents from this cover page. The document numbers for components of this product are:

16-2611-8, 16-2610-0

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## 3M<sup>TM</sup> ESPE<sup>TM</sup> RAMITEC<sup>TM</sup> 04/15/15

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



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06/10/16

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> RAMITEC<sup>TM</sup> CATALYST

#### **Product Identification Numbers**

70-2011-0290-5

#### 1.2. Recommended use and restrictions on use

#### Recommended use

Dental Product, Impression 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.

Specific Target Organ Toxicity (single exposure): Category 3.

#### 2.2. Label elements

Signal word

Warning

Symbols

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### 3M<sup>TM</sup> RAMITEC<sup>TM</sup> CATALYST 06/10/16

Exclamation mark |

#### **Pictograms**



#### **Hazard Statements**

Causes eye irritation.

May cause drowsiness or dizziness.

### **Precautionary Statements**

#### **Prevention:**

Use only in a well-ventilated area.

Wash thoroughly after handling.

#### **Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

Call a POISON CENTER or doctor/physician if you feel unwell.

#### **Storage:**

Store in a well-ventilated place. Keep container tightly closed.

#### 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
CITRIC ESTER	77-90-7	30 - 40 Trade Secret *
SULFONIUM SALT	72140-65-9	30 - 40 Trade Secret *
SILANE TREATED SILICA	68909-20-6	15 - 25 Trade Secret *
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	1 - 20 Trade Secret *
POLYETHYLENE-POLYPROPYLENE GLYCOL	9003-11-6	1 - 10 Trade Secret *
PIGMENT YELLOW	100208-62-6	1 - 5 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.

#### 3MTM RAMITECTM CATALYST 06/10/16

#### **Skin Contact:**

Wash with soap and water. If signs/symptoms develop, get medical attention.

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 Irritant Vapors or Gases

### **Condition**

**During Combustion 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

Avoid prolonged or repeated skin contact. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. 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 container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. 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	<b>Additional Comments</b>
Cristobalite	68855-54-9	ACGIH	TWA(respirable	A2: Suspected human
			fraction):0.025 mg/m3	carcin.
Cristobalite	68855-54-9	OSHA	TWA concentration(as total	
			dust):0.15 mg/m3;TWA	
			concentration(respirable):0.05	
			mg/m3(1.2 millions of	
			particles/cu. ft.)	
SILICA, AMORPHOUS	68855-54-9	OSHA	TWA concentration:0.8	
			mg/m3;TWA:20 millions of	
			particles/cu. ft.	
SILICA, AMORPHOUS	68909-20-6	OSHA	TWA concentration:0.8	
			mg/m3;TWA:20 millions of	
			particles/cu. ft.	

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**

### 3M<sup>TM</sup> RAMITEC<sup>TM</sup> CATALYST 06/10/16

### 9.1. Information on basic physical and chemical properties

General Physical Form: Solid Specific Physical Form: Paste

Odor, Color, Grade: Characteristic odor, yellow, paste

Odor thresholdNo Data AvailablepHNot ApplicableMelting pointNot ApplicableBoiling PointNot Applicable

Flash Point Flash point > 93 °C (200 °F)

Evaporation rate

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapor Pressure

Not Applicable

**Density** 1.1 - 1.3 g/cm3 [@ 23 °C]

Specific Gravity > 1 [@ 23 °C] [Ref Std: WATER=1]

Solubility in Water Negligible

No Data Available Solubility- non-water Partition coefficient: n-octanol/ water No Data Available No Data Available **Autoignition temperature Decomposition temperature** No Data Available 100 - 200 Pa-s Viscosity Molecular weight No Data Available **Volatile Organic Compounds** Not Applicable Percent volatile Not Applicable **VOC Less H2O & Exempt Solvents** No Data Available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

#### 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

Strong acids Strong bases

Strong oxidizing agents

### 10.6. Hazardous decomposition products

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

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

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## **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

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

### **Eye Contact:**

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

#### **Ingestion:**

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

May cause additional health effects (see below).

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

### Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

### **Carcinogenicity:**

Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	CAS No.	Class Description	Regulation
SILICA, CRYS AIRRESP	68855-54-9	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
SILICA, CRYS AIRRESP	68855-54-9	Known human carcinogen	National Toxicology Program Carcinogens
Generic: Cristobalite	68855-54-9	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

#### **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

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Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
SULFONIUM SALT	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
SULFONIUM SALT	Ingestion	Rat	LD50 > 2,000 mg/kg
CITRIC ESTER	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
CITRIC ESTER	Ingestion	Rat	LD50 > 25,000 mg/kg
SILANE TREATED SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
SILANE TREATED SILICA	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
SILANE TREATED SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 2.7 mg/l
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	Rat	LD50 > 2,000 mg/kg
POLYETHYLENE-POLYPROPYLENE GLYCOL	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
POLYETHYLENE-POLYPROPYLENE GLYCOL	Ingestion	Rat	LD50 5,700 mg/kg
PIGMENT YELLOW	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
PIGMENT YELLOW	Ingestion	Rat	LD50 2,000 mg/kg

ATE = acute toxicity estimate

### **Skin Corrosion/Irritation**

Name	Species	Value
SULFONIUM SALT	Rabbit	Mild irritant
SILANE TREATED SILICA	Rabbit	No significant irritation
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In vitro	No significant irritation
	data	

**Serious Eye Damage/Irritation** 

Name	Species	Value
SULFONIUM SALT	similar health hazards	Moderate irritant
SILANE TREATED SILICA	Rabbit	No significant irritation
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Rabbit	Mild irritant

## **Skin Sensitization**

Name	Species	Value
SILANE TREATED SILICA	Human	Not sensitizing
	and	
	animal	
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Mouse	Not sensitizing

## **Respiratory Sensitization**

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

## **Germ Cell Mutagenicity**

### 3M<sup>TM</sup> RAMITEC<sup>TM</sup> CATALYST 06/10/16

Name		Value
SULFONIUM SALT	In Vitro	Not mutagenic
SILANE TREATED SILICA	In Vitro	Not mutagenic
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In Vitro	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value
SILANE TREATED SILICA	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	Human	Carcinogenic
		and	
		animal	

### **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
SILANE TREATED SILICA	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s

### Target Organ(s)

Specific Target Organ Toxicity - single exposure

Specific runger organ	20111010	mgre emposure				
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
SULFONIUM SALT	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 2,000 mg/kg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
SILANE TREATED SILICA	Inhalation	respiratory system   silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	hematopoietic system   eyes   kidney and/or bladder	All data are negative	Rat	NOAEL 3,738 mg/kg/day	90 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.

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#### **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: 1 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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16-2611-8 **Version Number:** 11.00 **Document Group:** 06/14/16 **Issue Date: Supercedes Date:** 06/10/16

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> RAMITEC<sup>TM</sup> BASE

#### **Product Identification Numbers**

LE-F100-0174-0, 70-2011-0663-3

#### 1.2. Recommended use and restrictions on use

#### Recommended use

Dental Product, Impression material

#### Restrictions on use

For use only by dental professionals

### 1.3. Supplier's details

**MANUFACTURER:** 3M

**DIVISION:** Oral Care Solutions Division

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

#### 2.2. Label elements

#### Signal word

Warning

### **Symbols**

Not applicable

### 3M<sup>TM</sup> RAMITEC<sup>TM</sup> BASE 06/14/16

#### **Pictograms**

Not applicable

#### **Hazard Statements**

Causes eye irritation.

### **Precautionary Statements**

#### **Prevention:**

Wash thoroughly after handling.

#### **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.

#### 2.3. Hazards not otherwise classified

None.

## **SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
POLYETHER	110531-92-5	50 - 60 Trade Secret *
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	68855-54-9	20 - 40 Trade Secret *
DIBENZYL TOLUENE	26898-17-9	10 - 20 Trade Secret *
FATTY ACIDS TRIGLYCERIDES	67701-27-3	5 - 10 Trade Secret *
MAGNESIUM OXIDE	1309-48-4	1 - 5 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:

No need for first aid is anticipated.

#### **Skin Contact:**

Wash with soap and water. 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.

**Condition** 

**During Combustion** 

**During Combustion** 

**During Combustion** 

### 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
Irritant Vapors or Gases

### 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

Avoid eye contact. Avoid prolonged or repeated skin contact. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

#### 7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids. Store away from strong bases. 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	<b>Additional Comments</b>
MAGNESI	UM OXIDE	1309-48-4	ACGIH	TWA(inhalable fraction):10	A4: Not class. as human
				mg/m3	carcin
MAGNESI	UM OXIDE	1309-48-4	OSHA	TWA(as total particulates):15	
				mg/m3	

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Cristobalite	68855-54-9	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.
Cristobalite	68855-54-9	OSHA	TWA concentration(as total dust):0.15 mg/m3;TWA concentration(respirable):0.05 mg/m3(1.2 millions of particles/cu. ft.)	
SILICA, AMORPHOUS	68855-54-9	OSHA	TWA concentration:0.8 mg/m3;TWA:20 millions of particles/cu. ft.	

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:** 

Odor, Color, Grade: characteristic odor, white, paste

Odor threshold No Data Available Not Applicable pН **Melting point** No Data Available **Boiling Point** Not Applicable

**Flash Point** Flash point > 93 °C (200 °F)

Not Applicable **Evaporation rate** Not Classified Flammability (solid, gas) Flammable Limits(LEL) Not Applicable Flammable Limits(UEL) Not Applicable **Vapor Pressure** Not Applicable **Vapor Density** Not Applicable

**Density** 1 - 1.2 g/ml [@ 23 °C]

**Specific Gravity** > 1 [@ 23 °C] [Ref Std: WATER=1]

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Solubility in Water Negligible No Data Available Solubility- non-water No Data Available Partition coefficient: n-octanol/ water **Autoignition temperature** No Data Available **Decomposition temperature** No Data Available Viscosity 1,000 - 1,300 Pa-s No Data Available Molecular weight **Volatile Organic Compounds** Not Applicable Percent volatile Not Applicable **VOC Less H2O & Exempt Solvents** No Data Available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

#### 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

Strong acids Strong bases

Strong oxidizing agents

#### 10.6. Hazardous decomposition products

**Condition Substance** 

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:**

May be harmful in contact with skin.

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

#### 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.

### Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
SILICA, CRYS AIRRESP	68855-54-9	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
SILICA, CRYS AIRRESP	68855-54-9	Known human carcinogen	National Toxicology Program Carcinogens
Generic: Cristobalite	68855-54-9	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

#### **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 2,000 - 5,000
-			mg/kg
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000
			mg/kg
POLYETHER	Dermal	Professio	LD50 estimated to be 2,000 - 5,000 mg/kg
		nal	
		judgeme	
		nt	
POLYETHER	Ingestion	Rat	LD50 > 2,000 mg/kg
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Dermal	Professio	LD50 estimated to be > 5,000 mg/kg
		nal	
		judgeme	
		nt	
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation-	Rat	LC50 > 2.7  mg/l
	Dust/Mist		
	(4 hours)		
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	Rat	LD50 > 2,000 mg/kg
DIBENZYL TOLUENE	Dermal	Rabbit	LD50 > 2,000 mg/kg
DIBENZYL TOLUENE	Ingestion	Rat	LD50 > 10,360 mg/kg
FATTY ACIDS TRIGLYCERIDES	Dermal	Rabbit	LD50 > 2,000 mg/kg
FATTY ACIDS TRIGLYCERIDES	Ingestion	Rat	LD50 > 2,000 mg/kg
MAGNESIUM OXIDE	Dermal	Professio	LD50 estimated to be 2,000 - 5,000 mg/kg
		nal	
		judgeme	
		nt	
MAGNESIUM OXIDE	Ingestion	Rat	LD50 3,870 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value

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POLYETHER	Rabbit	No significant irritation
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In vitro	No significant irritation
	data	
MAGNESIUM OXIDE	Professio	No significant irritation
	nal	
	judgeme	
	nt	

**Serious Eye Damage/Irritation** 

Name	Species	Value
POLYETHER	Rabbit	Moderate irritant
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Rabbit	Mild irritant

#### **Skin Sensitization**

Name	Species	Value
POLYETHER	Guinea	Not sensitizing
	pig	
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Mouse	Not sensitizing

### **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
POLYETHER	In Vitro	Not mutagenic
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	In Vitro	Some positive data exist, but the data are not sufficient for classification
MAGNESIUM OXIDE	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	Human	Carcinogenic
		and	
		animal	
MAGNESIUM OXIDE	Not	Human	Some positive data exist, but the data are not
	Specified	and	sufficient for classification
		animal	

### **Reproductive Toxicity**

### Reproductive and/or Developmental Effects

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

### Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
MAGNESIUM OXIDE	Inhalation	respiratory system	All data are negative	Human	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

specific Target Organ Toxicity - Tepeated exposure										
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration				
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure				
Flux calcined diatomaceous earth (cristobalite 1 - <10%)	Ingestion	hematopoietic system   eyes   kidney and/or	All data are negative	Rat	NOAEL 3,738 mg/kg/day	90 days				

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bladder

#### **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: 1 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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