



## Material Safety Data Sheet

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**PRODUCT NAME:** 3M™ ESPE™ DIMENSION PENTA™ H QUICK Refill  
**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 PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 10/15/14  
**Supersedes Date:** 04/04/12  
**Document Group:** 16-2795-9

### ID Number(s):

70-2011-2466-9, 70-2011-2467-7

**This product is a kit or a multipart product which consists of multiple, independently packaged components. An SDS for each of these components is included. Please do not separate the component SDSs from this cover page. The document numbers of the SDSs for components of this product are:**

16-2794-2, 16-2793-4

### Revision Changes:

Section 16: Disclaimer (first paragraph) information was modified.  
Section 16: Disclaimer (second paragraph) information was modified.  
Kit: Component heading paragraph information was modified.  
Section 16: Web address information was modified.  
Section 1: Address information was modified.  
Copyright information was modified.  
Telephone header information was modified.  
Company Telephone information was modified.

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within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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<b>Document Group:</b>	16-2793-4	<b>Version Number:</b>	8.01
<b>Issue Date:</b>	04/08/20	<b>Supersedes Date:</b>	02/25/16

### SECTION 1: Identification

#### 1.1. Product identifier

DIMENSION™ PENTA™ H QUICK BASE

#### Product Identification Numbers

LE-FSFD-3692-5

#### 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

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Oral Care Solutions Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### 2.2. Label elements

##### Signal word

Not applicable.

##### Symbols

Not applicable.

**Pictograms**

Not applicable.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material	None	60 - 80 Trade Secret *
SILOXANES AND SILICONES, DI-ME, VINYL GROUP-TERMINATED	68083-19-2	10 - 20 Trade Secret *
POLY(DIMETHYLSILOXANE)	63148-62-9	1 - 10 Trade Secret *
ALUMINUM OXIDE	1344-28-1	1 - 5 Trade Secret *
DIMETHYL METHYL HYDROGEN SILICONE FLUID	68037-59-2	1 - 5 Trade Secret *
SILANE TREATED SILICA	67762-90-7	1 - 5 Trade Secret *
CHROMIUM OXIDE (CR2O3)	1308-38-9	< 1 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:**

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.

#### 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**

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**

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**

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. Store away from amines.

**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.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional Comments</b>
CHROMIUM (III) COMPOUNDS	1308-38-9	ACGIH	TWA(as Cr(III), inhalable fraction):0.003 mg/m <sup>3</sup> ;TWA(as Cr):0.5 mg/m <sup>3</sup>	A4: Not class. as human carcin
CHROMIUM (III) COMPOUNDS	1308-38-9	OSHA	TWA(as Cr):0.5 mg/m <sup>3</sup>	
Chromium, insoluble salts	1308-38-9	OSHA	TWA(as Cr):1 mg/m <sup>3</sup>	
ALUMINUM OXIDE	1344-28-1	OSHA	TWA(as total dust):15 mg/m <sup>3</sup> ;TWA(respirable	

			fraction):5 mg/m3	
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
SILICA, AMORPHOUS	67762-90-7	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**

**Appearance**

**Physical state**  
**Color**

Solid  
 Green

**Specific Physical Form:**

Paste  
 Slight Odor, Characteristic Odor

**Odor**

*No Data Available*

**Odor threshold**

*Not Applicable*

**pH**

*Not Applicable*

**Melting point**

*Not Applicable*

**Boiling Point**

*Not Applicable*

**Flash Point**

Flash point > 93 °C (200 °F)

**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*

**Density**

> 1 g/cm3

**Specific Gravity**

> 1 [Ref Std: WATER=1]

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

## 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

Amines  
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.

## 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.

### 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.

**Eye Contact:**

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

**Ingestion:**

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

**Additional Health Effects:**

**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.

**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 >5,000 mg/kg
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material	Ingestion		LD50 estimated to be > 5,000 mg/kg
SILOXANES AND SILICONES, DI-ME, VINYL GROUP-TERMINATED	Dermal	Rabbit	LD50 > 15,440 mg/kg
SILOXANES AND SILICONES, DI-ME, VINYL GROUP-TERMINATED	Ingestion	Rat	LD50 > 15,440 mg/kg
POLY(DIMETHYLSILOXANE)	Dermal	Rabbit	LD50 > 19,400 mg/kg
POLY(DIMETHYLSILOXANE)	Ingestion	Rat	LD50 > 17,000 mg/kg
DIMETHYL METHYL HYDROGEN SILICONE FLUID	Dermal	Rabbit	LD50 > 2,000 mg/kg
DIMETHYL METHYL HYDROGEN SILICONE FLUID	Ingestion	Rat	LD50 > 2,000 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
ALUMINUM OXIDE	Dermal		LD50 estimated to be > 5,000 mg/kg
ALUMINUM OXIDE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l
ALUMINUM OXIDE	Ingestion	Rat	LD50 > 5,000 mg/kg
CHROMIUM OXIDE (CR2O3)	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
CHROMIUM OXIDE (CR2O3)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.41 mg/l
CHROMIUM OXIDE (CR2O3)	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate



**Skin Corrosion/Irritation**

Name	Species	Value
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material		No significant irritation
SILOXANES AND SILICONES, DI-ME, VINYL GROUP-TERMINATED	Rabbit	No significant irritation
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation
DIMETHYL METHYL HYDROGEN SILICONE FLUID	Rabbit	No significant irritation
SILANE TREATED SILICA	Rabbit	No significant irritation
ALUMINUM OXIDE	Rabbit	No significant irritation
CHROMIUM OXIDE (CR2O3)	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
SILOXANES AND SILICONES, DI-ME, VINYL GROUP-TERMINATED	Rabbit	Mild irritant
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation
DIMETHYL METHYL HYDROGEN SILICONE FLUID	Rabbit	Mild irritant
SILANE TREATED SILICA	Rabbit	No significant irritation
ALUMINUM OXIDE	Rabbit	No significant irritation
CHROMIUM OXIDE (CR2O3)	Rabbit	No significant irritation

**Skin Sensitization**

Name	Species	Value
DIMETHYL METHYL HYDROGEN SILICONE FLUID	Guinea pig	Not classified
SILANE TREATED SILICA	Human and animal	Not classified
CHROMIUM OXIDE (CR2O3)	similar compounds	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
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material	In vivo	Some positive data exist, but the data are not sufficient for classification
DIMETHYL METHYL HYDROGEN SILICONE FLUID	In Vitro	Not mutagenic
SILANE TREATED SILICA	In Vitro	Not mutagenic
ALUMINUM OXIDE	In Vitro	Not mutagenic
CHROMIUM OXIDE (CR2O3)	In vivo	Not mutagenic
CHROMIUM OXIDE (CR2O3)	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material	Inhalation	Human and animal	Carcinogenic
SILANE TREATED SILICA	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
ALUMINUM OXIDE	Inhalation	Rat	Not carcinogenic
CHROMIUM OXIDE (CR2O3)	Ingestion	Rat	Not carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
SILANE TREATED SILICA	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
CHROMIUM OXIDE (CR2O3)	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	90 days
CHROMIUM OXIDE (CR2O3)	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	90 days
CHROMIUM OXIDE (CR2O3)	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	90 days

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
CHROMIUM OXIDE (CR2O3)	Inhalation	respiratory system	Not classified	Rat	NOAEL 40 mg	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Quartz (14808-60-7), surface modified with silsesquioxanes, methyl, ethoxy-terminated (CAS 104780-78-1), bulk material	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
SILANE TREATED SILICA	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure
ALUMINUM OXIDE	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
ALUMINUM OXIDE	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
CHROMIUM OXIDE (CR2O3)	Inhalation	immune system   respiratory system   hematopoietic system   liver   kidney and/or bladder	Not classified	Rat	NOAEL 44 mg/m3	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.

**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 waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product 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.

#### EPCRA 311/312 Hazard Classifications:

##### Physical Hazards

Not applicable

##### Health Hazards

Not applicable

#### Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
ALUMINUM OXIDE	1344-28-1	Trade Secret 1 - 5
ALUMINUM OXIDE (ALUMINUM OXIDE (FIBROUS FORMS ONLY))	1344-28-1	1 - 5

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

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:** 0 **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.

<b>Document Group:</b>	16-2793-4	<b>Version Number:</b>	8.01
<b>Issue Date:</b>	04/08/20	<b>Supersedes Date:</b>	02/25/16

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**3M USA SDSs are available at [www.3M.com](http://www.3M.com)**



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<b>Document Group:</b>	16-2794-2	<b>Version Number:</b>	11.01
<b>Issue Date:</b>	04/08/20	<b>Supersedes Date:</b>	02/25/16

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Dimension™ Penta™ H Quick Catalyst

#### Product Identification Numbers

LE-FSFD-3692-3

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

##### Recommended use

Dental product, Impression

##### Restrictions on use

For use only by dental professionals

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Oral Care Solutions Division
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	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

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### 2.2. Label elements

##### Signal word

Not applicable.

##### Symbols

Not applicable.

**Pictograms**

Not applicable.

### SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
SODIUM ALUMINUM SILICATE	37244-96-5	50 - 70 Trade Secret *
POLYVINYLSILOXANE	68083-19-2	10 - 30 Trade Secret *
POLY(DIMETHYLSILOXANE)	63148-62-9	1 - 20 Trade Secret *
SILANE TREATED SILICA	67762-90-7	< 5 Trade Secret *
Chromium oxide (Cr2O3)	1308-38-9	< 2 Trade Secret *
DL-ALPHA-TOCOPHEROL	10191-41-0	< 1 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:**

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.

#### 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

Irritant Vapors or Gases

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**

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. Store away from amines.

**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
CHROMIUM (III) COMPOUNDS	1308-38-9	ACGIH	TWA(as Cr(III), inhalable fraction):0.003 mg/m <sup>3</sup> ;TWA(as Cr):0.5 mg/m <sup>3</sup>	A4: Not class. as human carcin
CHROMIUM (III) COMPOUNDS	1308-38-9	OSHA	TWA(as Cr):0.5 mg/m <sup>3</sup>	
Chromium, insoluble salts	1308-38-9	OSHA	TWA(as Cr):1 mg/m <sup>3</sup>	
SILICA, AMORPHOUS	67762-90-7	OSHA	TWA concentration:0.8 mg/m <sup>3</sup> ;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

#### Appearance

Physical state

Solid

Color

Green

**Specific Physical Form:**

Paste

**Odor**

Characteristic Odor

**Odor threshold**

*No Data Available*

**pH**

*Not Applicable*

**Melting point**

*No Data Available*

**Boiling Point**

*Not Applicable*

**Flash Point**

Flash point > 93 °C (200 °F)

**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*

**Density**

*No Data Available*

**Specific Gravity**

>=1.0 [Ref Std:WATER=1]

**Solubility in Water**

Negligible

**Solubility- non-water**

*No Data Available*

**Partition coefficient: n-octanol/ water**

*No Data Available*

**Autoignition temperature**

*No Data Available*

**Decomposition temperature**

*No Data Available*

**Viscosity**

*No Data Available*

**Molecular weight**

*Not Applicable*

**Volatile Organic Compounds**

*Not Applicable*

**Percent volatile**

*Not Applicable*

**VOC Less H2O & Exempt Solvents**

*Not Applicable*



## 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

Amines  
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.

## 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.

**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.

**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 ATE2,000 - 5,000 mg/kg
SODIUM ALUMINUM SILICATE	Dermal		LD50 estimated to be > 5,000 mg/kg
SODIUM ALUMINUM SILICATE	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
POLYVINYLSILOXANE	Dermal	Rabbit	LD50 > 15,440 mg/kg
POLYVINYLSILOXANE	Ingestion	Rat	LD50 > 15,440 mg/kg
POLY(DIMETHYLSILOXANE)	Dermal	Rabbit	LD50 > 19,400 mg/kg
POLY(DIMETHYLSILOXANE)	Ingestion	Rat	LD50 > 17,000 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
Chromium oxide (Cr2O3)	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Chromium oxide (Cr2O3)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.41 mg/l
Chromium oxide (Cr2O3)	Ingestion	Rat	LD50 > 5,000 mg/kg
DL-ALPHA-TOCOPHEROL	Dermal	Rat	LD50 > 3,000 mg/kg
DL-ALPHA-TOCOPHEROL	Ingestion	Rat	LD50 > 4,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
SODIUM ALUMINUM SILICATE	Professional judgement	No significant irritation
POLYVINYLSILOXANE	Rabbit	No significant irritation
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation
SILANE TREATED SILICA	Rabbit	No significant irritation
Chromium oxide (Cr2O3)	Rabbit	No significant irritation
DL-ALPHA-TOCOPHEROL	Rabbit	Minimal irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
SODIUM ALUMINUM SILICATE	Professional judgement	Mild irritant
POLYVINYLSILOXANE	Rabbit	Mild irritant
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation
SILANE TREATED SILICA	Rabbit	No significant irritation
Chromium oxide (Cr2O3)	Rabbit	No significant irritation

DL-ALPHA-TOCOPHEROL	Rabbit	No significant irritation
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### Skin Sensitization

Name	Species	Value
SILANE TREATED SILICA	Human and animal	Not classified
Chromium oxide (Cr2O3)	similar compounds	Not classified
DL-ALPHA-TOCOPHEROL	Mouse	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
SILANE TREATED SILICA	In Vitro	Not mutagenic
Chromium oxide (Cr2O3)	In vivo	Not mutagenic
Chromium oxide (Cr2O3)	In Vitro	Some positive data exist, but the data are not sufficient for classification
DL-ALPHA-TOCOPHEROL	In vivo	Not mutagenic

### Carcinogenicity

Name	Route	Species	Value
SILANE TREATED SILICA	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Chromium oxide (Cr2O3)	Ingestion	Rat	Not carcinogenic

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
SILANE TREATED SILICA	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Chromium oxide (Cr2O3)	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	90 days
Chromium oxide (Cr2O3)	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	90 days
Chromium oxide (Cr2O3)	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	90 days

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Chromium oxide (Cr2O3)	Inhalation	respiratory system	Not classified	Rat	NOAEL 40 mg	

#### Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
SILANE TREATED SILICA	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure

Chromium oxide (Cr2O3)	Inhalation	immune system   respiratory system   hematopoietic system   liver   kidney and/or bladder	Not classified	Rat	NOAEL 44 mg/m3	90 days
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**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 waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility.

**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.

**EPCRA 311/312 Hazard Classifications:**

**Physical Hazards**

Not applicable

**Health Hazards**

Not applicable

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

**Ingredient**

Chromium oxide (Cr2O3) (CHROMIUM (III) COMPOUNDS)

**C.A.S. No**

1308-38-9

**% by Wt**

< 2

**15.2. State Regulations**

Contact 3M for more information.

**15.3. Chemical Inventories**

The components of this product are in compliance with the new substance notification requirements of CEPA.

The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information.

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: 0 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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