



## Material Safety Data Sheet

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**PRODUCT NAME:** 3M™ ESPE™ EXPRESS™ 2 LIGHT BODY FLOW 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:** 10/31/14  
**Supersedes Date:** 10/10/06  
**Document Group:** 21-9854-7

### ID Number(s):

70-2011-2407-3

**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:**

21-2017-8, 21-9345-6

### Revision Changes:

Kit: Component heading paragraph information was modified.  
Page Heading: Product name information was modified.  
Kit: Product name information was modified.  
Kit initial issue message information was modified.  
Section 1: Manufacturer name information was added.  
Section 16: Disclaimer (first paragraph) information was added.  
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Kit: ID Number Heading information was added.  
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Section 16: Web address information was added.  
Section 1: Address information was added.  
Copyright information was added.  
Company logo information was added.  
Telephone header information was added.

Company Telephone information was added.

Section 1: Emergency phone information information was added.

Company Logo information was deleted.

Copyright information was deleted.

Kit: Manufacturer's name information was deleted.

Kit: Emergency phone information information was deleted.

Kit: Disclaimer (first paragraph) information was deleted.

Kit: Disclaimer (second paragraph) information was deleted.

Kit: Address line 1 information was deleted.

Kit: Address line 2 information was deleted.

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 21-2017-8 | <b>Version Number:</b>  | 9.00     |
| <b>Issue Date:</b>     | 10/09/14  | <b>Supersedes Date:</b> | 01/19/08 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ EXPRESS™ 2 LIGHT BODY FLOW QUICK BASE

#### Product Identification Numbers

LE-F100-0228-9

#### 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>     | 3M ESPE Dental Products                 |
| <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.

**2.3. Hazards not otherwise classified**

None.

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

| <b>Ingredient</b>                        | <b>C.A.S. No.</b> | <b>% by Wt</b>         |
|--|-------------------|------------------------|
| VINYL POLYDIMETHYLSILOXANE               | 68083-19-2        | 40 - 50 Trade Secret * |
| CRISTOBALITE                             | 14464-46-1        | 30 - 40 Trade Secret * |
| DIMETHYL METHYL HYDROGEN SILICONE FLUID  | 68037-59-2        | 10 - 15 Trade Secret * |
| SILANE TREATED SILICA                    | 67762-90-7        | 1 - 10 Trade Secret *  |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | 27306-78-1        | 1 - 5 Trade Secret *   |

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

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

**Condition**

During Combustion

Carbon dioxide  
Irritant Vapors or Gases

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

Ventilate the area with fresh air. Observe precautions from other sections.

### 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. 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 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         |
|-----------------------|------------|--------|---|-----------------------------|
| CRISTOBALITE          | 14464-46-1 | ACGIH  | TWA(respirable fraction):0.025 mg/m <sup>3</sup>  | A2: Suspected human carcin. |
| CRISTOBALITE          | 14464-46-1 | OSHA   | TWA concentration(as total dust):0.15 mg/m <sup>3</sup> ;TWA concentration(respirable):0.05 mg/m <sup>3</sup> (1.2 millions of particles/cu. ft.) |                             |
| SILANE TREATED SILICA | 67762-90-7 | CMRG   | CEIL:5 mg/m <sup>3</sup>  |                             |

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

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

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

|  |                                       |
|--|---------------------------------------|
| <b>General Physical Form:</b>                        | Solid                                 |
| <b>Specific Physical Form:</b>                       | Paste                                 |
| <b>Odor, Color, Grade:</b>                           | Odorless, white paste                 |
| <b>Odor threshold</b>                                | <i>No Data Available</i>              |
| <b>pH</b>  | <i>Not Applicable</i>                 |
| <b>Melting point</b>                                 | <i>No Data Available</i>              |
| <b>Boiling Point</b>                                 | <i>Not Applicable</i>                 |
| <b>Flash Point</b>                                   | Flash point > 93 °C (200 °F)          |
| <b>Evaporation rate</b>                              | <i>Not Applicable</i>                 |
| <b>Flammability (solid, gas)</b>                     | Not Classified                        |
| <b>Flammable Limits(LEL)</b>                         | <i>Not Applicable</i>                 |
| <b>Flammable Limits(UEL)</b>                         | <i>Not Applicable</i>                 |
| <b>Vapor Pressure</b>                                | <i>Not Applicable</i>                 |
| <b>Vapor Density</b>                                 | <i>Not Applicable</i>                 |
| <b>Density</b>                                       | 1.2 - 1.3 g/cm <sup>3</sup>           |
| <b>Specific Gravity</b>                              | 1.2 - 1.3 [ <i>Ref Std: WATER=1</i> ] |
| <b>Solubility in Water</b>                           | Negligible                            |
| <b>Solubility- non-water</b>                         | <i>No Data Available</i>              |
| <b>Partition coefficient: n-octanol/ water</b>       | <i>No Data Available</i>              |
| <b>Autoignition temperature</b>                      | <i>No Data Available</i>              |
| <b>Decomposition temperature</b>                     | <i>No Data Available</i>              |
| <b>Viscosity</b>                                     | <i>No Data Available</i>              |
| <b>Volatile Organic Compounds</b>                    | <i>Not Applicable</i>                 |
| <b>Percent volatile</b>                              | <i>Not Applicable</i>                 |
| <b>VOC Less H<sub>2</sub>O &amp; Exempt Solvents</b> | <i>Not Applicable</i>                 |

## 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 bases
- Strong oxidizing agents
- Strong acids

**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:**

No health effects are expected.

**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.

**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> | <u>C.A.S. No.</u> | <u>Class Description</u> | <u>Regulation</u> |
|-------------------|-------------------|--------------------------|-------------------|
|-------------------|-------------------|--------------------------|-------------------|

|                         |            |                                |   |
|-------------------------|------------|--------------------------------|---|
| SILICA, CRYSTAL AIRRESP | 14464-46-1 | Known human carcinogen         | National Toxicology Program Carcinogens     |
| CRISTOBALITE            | 14464-46-1 | 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                          | Ingestion                      |         | No data available; calculated ATE > 5,000 mg/kg |
| VINYL POLYDIMETHYLSILOXANE               | Dermal                         | Rabbit  | LD50 > 15,440 mg/kg                             |
| VINYL POLYDIMETHYLSILOXANE               | Ingestion                      | Rat     | LD50 > 15,440 mg/kg                             |
| CRISTOBALITE                             | Dermal                         |         | LD50 estimated to be > 5,000 mg/kg              |
| CRISTOBALITE                             | Ingestion                      |         | LD50 estimated to be > 5,000 mg/kg              |
| DIMETHYL METHYL HYDROGEN SILICONE FLUID  | Dermal                         | Rabbit  | LD50 > 2,000 mg/kg                              |
| DIMETHYL METHYL HYDROGEN SILICONE FLUID  | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 4.2 mg/l                                   |
| 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                              |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Dermal                         | Rabbit  | LD50 > 2,000 mg/kg                              |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 2 mg/l                                     |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Ingestion                      | Rat     | LD50 > 2,000 mg/kg                              |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                                     | Species | Value                     |
|--|---------|---------------------------|
| VINYL POLYDIMETHYLSILOXANE               | Rabbit  | No significant irritation |
| CRISTOBALITE                             |         | No significant irritation |
| SILANE TREATED SILICA                    | Rabbit  | No significant irritation |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Rabbit  | No significant irritation |

**Serious Eye Damage/Irritation**

| Name                                     | Species | Value                     |
|--|---------|---------------------------|
| VINYL POLYDIMETHYLSILOXANE               | Rabbit  | Mild irritant             |
| SILANE TREATED SILICA                    | Rabbit  | No significant irritation |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Rabbit  | Severe irritant           |

**Skin Sensitization**

| Name                                     | Species          | Value           |
|--|------------------|-----------------|
| SILANE TREATED SILICA                    | Human and animal | Not sensitizing |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Guinea pig       | Not sensitizing |

**Respiratory Sensitization**

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|

**Germ Cell Mutagenicity**

| Name                                     | Route    | Value  |
|--|----------|--|
| CRISTOBALITE                             | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| CRISTOBALITE                             | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| SILANE TREATED SILICA                    | In Vitro | Not mutagenic  |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | In Vitro | Not mutagenic  |



|  |         |               |
|--|---------|---------------|
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | In vivo | Not mutagenic |
|--|---------|---------------|

**Carcinogenicity**

| Name                  | Route         | Species          | Value  |
|-----------------------|---------------|------------------|--|
| CRISTOBALITE          | Inhalation    | Human and animal | Carcinogenic   |
| SILANE TREATED SILICA | Not Specified | Mouse            | Some positive data exist, but the data are not sufficient for classification |

**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 organogenesis           |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Ingestion | Some positive reproductive/developmental data exist, but the data are not sufficient for classification | Rat     | NOAEL 450 mg/kg/day   | prematuring & during gestation |

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------|-------|-----------------|-------|---------|-------------|-------------------|
|------|-------|-----------------|-------|---------|-------------|-------------------|

**Specific Target Organ Toxicity - repeated exposure**

| Name                  | Route      | Target Organ(s)                | Value  | Species | Test Result         | Exposure Duration     |
|-----------------------|------------|--------------------------------|--|---------|---------------------|-----------------------|
| CRISTOBALITE          | Inhalation | silicosis                      | Causes damage to organs through prolonged or repeated exposure | Human   | NOAEL Not available | occupational exposure |
| SILANE TREATED SILICA | Inhalation | respiratory system   silicosis | All data are negative  | Human   | NOAEL Not available | occupational exposure |

**Aspiration Hazard**

| Name | Value |
|------|-------|
|------|-------|

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.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal 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.

#### 311/312 Hazard Categories:

Fire Hazard - No    Pressure Hazard - No    Reactivity Hazard - No    Immediate Hazard - No    Delayed Hazard - No

### 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.

**Document Group:** 21-2017-8  
**Issue Date:** 10/09/14

**Version Number:** 9.00  
**Supersedes Date:** 01/19/08

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
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| <b>Issue Date:</b>     | 10/09/14  | <b>Supersedes Date:</b> | 01/28/08 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ EXPRESS™ 2 LIGHT BODY FLOW QUICK CATALYST

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

##### Recommended use

Dental Product, Impression Material

#### 1.3. Supplier's details

|                      |   |
|----------------------|---|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | 3M ESPE Dental Products                 |
| <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.

#### 2.3. Hazards not otherwise classified

None.

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

| Ingredient                | C.A.S. No. | % by Wt                |
|---------------------------|------------|------------------------|
| VINYL POLYDIMETHYSILOXANE | 68083-19-2 | 40 - 50 Trade Secret * |
| CRISTOBALITE              | 14464-46-1 | 40 - 50 Trade Secret * |
| POLY(DIMETHYLSILOXANE)    | 63148-62-9 | 1 - 5 Trade Secret *   |
| SILANE TREATED SILICA     | 67762-90-7 | 1 - 5 Trade Secret *   |

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin Contact:**

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**

No special protective actions for fire-fighters are anticipated.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Ventilate the area with fresh air. Observe precautions from other sections.

**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. 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 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>  |
|-----------------------|-------------------|---------------|---|-----------------------------|
| CRISTOBALITE          | 14464-46-1        | ACGIH         | TWA(respirable fraction):0.025 mg/m3  | A2: Suspected human carcin. |
| CRISTOBALITE          | 14464-46-1        | OSHA          | TWA concentration(as total dust):0.15 mg/m3;TWA concentration(respirable):0.05 mg/m3(1.2 millions of particles/cu. ft.) |                             |
| SILANE TREATED SILICA | 67762-90-7        | CMRG          | CEIL:5 mg/m3  |                             |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

**8.2. Exposure controls****8.2.1. Engineering controls**

Use in a well-ventilated area.

**8.2.2. Personal protective equipment (PPE)****Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face

protection(s) are recommended:  
Safety Glasses with side shields

#### Skin/hand protection

See Section 7.1 for additional information on skin protection.

#### Respiratory protection

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

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

|   |                                       |
|---|---------------------------------------|
| General Physical Form:                      | Solid                                 |
| Specific Physical Form:                     | Paste                                 |
| Odor, Color, Grade:                         | Odorless, blue paste                  |
| Odor threshold                              | <i>No Data Available</i>              |
| pH  | <i>Not Applicable</i>                 |
| Melting point                               | <i>No Data Available</i>              |
| Boiling Point                               | <i>Not Applicable</i>                 |
| Flash Point                                 | Flash point > 93 °C (200 °F)          |
| Evaporation rate                            | <i>Not Applicable</i>                 |
| Flammability (solid, gas)                   | Not Classified                        |
| Flammable Limits(LEL)                       | <i>Not Applicable</i>                 |
| Flammable Limits(UEL)                       | <i>Not Applicable</i>                 |
| Vapor Pressure                              | <i>Not Applicable</i>                 |
| Vapor Density                               | <i>Not Applicable</i>                 |
| Density                                     | 1.3 - 1.4 g/cm <sup>3</sup>           |
| Specific Gravity                            | 1.3 - 1.4 [ <i>Ref Std: WATER=1</i> ] |
| Solubility in Water                         | Negligible                            |
| Solubility- non-water                       | <i>No Data Available</i>              |
| Partition coefficient: n-octanol/ water     | <i>No Data Available</i>              |
| Autoignition temperature                    | <i>No Data Available</i>              |
| Decomposition temperature                   | <i>No Data Available</i>              |
| Viscosity                                   | <i>No Data Available</i>              |
| Volatile Organic Compounds                  | <i>Not Applicable</i>                 |
| Percent volatile                            | <i>Not Applicable</i>                 |
| VOC Less H <sub>2</sub> O & Exempt Solvents | <i>Not Applicable</i>                 |

## 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:**

No health effects are expected.

**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.

**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>     | <u>C.A.S. No.</u> | <u>Class Description</u>       | <u>Regulation</u>                           |
|-----------------------|-------------------|--------------------------------|---|
| SILICA, CRYST AIRRESP | 14464-46-1        | Known human carcinogen         | National Toxicology Program Carcinogens     |
| CRISTOBALITE          | 14464-46-1        | 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           | Ingestion                      |         | No data available; calculated ATE > 5,000 mg/kg |
| VINYL POLYDIMETHYSILOXANE | Dermal                         | Rabbit  | LD50 > 15,440 mg/kg                             |
| VINYL POLYDIMETHYSILOXANE | Ingestion                      | Rat     | LD50 > 15,440 mg/kg                             |
| CRISTOBALITE              | Dermal                         |         | LD50 estimated to be > 5,000 mg/kg              |
| CRISTOBALITE              | Ingestion                      |         | LD50 estimated to be > 5,000 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                              |
| POLY(DIMETHYLSILOXANE)    | Dermal                         | Rabbit  | LD50 > 19,400 mg/kg                             |
| POLY(DIMETHYLSILOXANE)    | Ingestion                      | Rat     | LD50 > 17,000 mg/kg                             |

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

| Name                      | Species | Value                     |
|---------------------------|---------|---------------------------|
| VINYL POLYDIMETHYSILOXANE | Rabbit  | No significant irritation |
| CRISTOBALITE              |         | No significant irritation |
| SILANE TREATED SILICA     | Rabbit  | No significant irritation |
| POLY(DIMETHYLSILOXANE)    | Rabbit  | No significant irritation |

### Serious Eye Damage/Irritation

| Name                      | Species | Value                     |
|---------------------------|---------|---------------------------|
| VINYL POLYDIMETHYSILOXANE | Rabbit  | Mild irritant             |
| SILANE TREATED SILICA     | Rabbit  | No significant irritation |
| POLY(DIMETHYLSILOXANE)    | Rabbit  | No significant irritation |

### Skin Sensitization

| Name                  | Species          | Value           |
|-----------------------|------------------|-----------------|
| SILANE TREATED SILICA | Human and animal | Not sensitizing |

### Respiratory Sensitization

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|

### Germ Cell Mutagenicity

| Name                  | Route    | Value  |
|-----------------------|----------|--|
| CRISTOBALITE          | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| CRISTOBALITE          | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| SILANE TREATED SILICA | In Vitro | Not mutagenic  |

### Carcinogenicity

| Name                  | Route         | Species          | Value  |
|-----------------------|---------------|------------------|--|
| CRISTOBALITE          | Inhalation    | Human and animal | Carcinogenic   |
| SILANE TREATED SILICA | Not Specified | Mouse            | Some positive data exist, but the data are not sufficient for classification |

### 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   | 1 generation      |

|                       |           |                                |     |                       |                      |
|-----------------------|-----------|--------------------------------|-----|-----------------------|----------------------|
|                       |           |                                |     | mg/kg/day             |                      |
| 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 organogenesis |

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------|-------|-----------------|-------|---------|-------------|-------------------|
|------|-------|-----------------|-------|---------|-------------|-------------------|

**Specific Target Organ Toxicity - repeated exposure**

| Name                  | Route      | Target Organ(s)                | Value  | Species | Test Result         | Exposure Duration     |
|-----------------------|------------|--------------------------------|--|---------|---------------------|-----------------------|
| CRISTOBALITE          | Inhalation | silicosis                      | Causes damage to organs through prolonged or repeated exposure | Human   | NOAEL Not available | occupational exposure |
| SILANE TREATED SILICA | Inhalation | respiratory system   silicosis | All data are negative  | Human   | NOAEL Not available | occupational exposure |

**Aspiration Hazard**

| Name | Value |
|------|-------|
|------|-------|

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.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal 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.

#### 311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - No 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:** 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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