



## Material Safety Data Sheet

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**PRODUCT NAME:** 3M™ ESPE™ EXPRESSTM 2 PENTA™ PUTTY PROMOTION PACK  
**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:** 11/03/14  
**Supersedes Date:** 08/24/09  
**Document Group:** 27-2700-6

**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:**

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Kit: Component heading paragraph information was modified.  
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Section 1: Manufacturer name 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.  
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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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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
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| <b>Issue Date:</b>     | 02/25/16  | <b>Supersedes Date:</b> | 10/09/14 |

### 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>     | 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.

#### 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>         |
|---------------------------|-------------------|------------------------|
| CRISTOBALITE              | 14464-46-1        | 40 - 50 Trade Secret * |
| VINYL POLYDIMETHYSILOXANE | 68083-19-2        | 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.

| 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

|                                             |                              |
|---------------------------------------------|------------------------------|
| General Physical Form:                      | Solid                        |
| Specific Physical Form:                     | Paste                        |
| Odor, Color, Grade:                         | Odorless, blue paste         |
| 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                                     | 1.3 - 1.4 g/cm <sup>3</sup>  |
| Specific Gravity                            | 1.3 - 1.4 [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            |
| Volatile Organic Compounds                  | Not Applicable               |
| Percent volatile                            | Not Applicable               |
| VOC Less H <sub>2</sub> O & 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****Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

**SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

The information below represents toxicological information associated with the individual components of the uncured product. Once properly mixed and/or cured, the product is safe for its intended use.

**11.1. Information on Toxicological effects****Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

**Inhalation:**

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.

**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.

| <u>Ingredient</u>   | <u>CAS No.</u> | <u>Class Description</u>       | <u>Regulation</u>                           |
|---------------------|----------------|--------------------------------|---------------------------------------------|
| SILICA, CRYSTALLINE | 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              | Professional judgement | 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

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

### 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        | Mouse            | Some positive data exist, but the data are not |

Specified 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 |

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

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

**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**

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.

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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|------------------------|-----------|-------------------------|----------|
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| <b>Issue Date:</b>     | 02/25/16  | <b>Supersedes Date:</b> | 11/30/15 |

### SECTION 1: Identification

#### 1.1. Product identifier

VPS Tray Adhesive

#### Product Identification Numbers

70-2011-0649-2

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

##### Recommended use

Dental Product, Tray adhesive.

##### 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

Flammable Liquid: Category 2.

Specific Target Organ Toxicity (central nervous system): Category 3.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Flame | Exclamation mark |

#### Pictograms



#### Hazard Statements

Highly flammable liquid and vapor.

May cause drowsiness or dizziness.

#### Precautionary Statements

##### Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only in a well-ventilated area.

Wear protective gloves and eye/face protection.

##### Response:

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

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

##### Storage:

Store in a well-ventilated place. Keep cool.

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                |
|------------------------|------------|------------------------|
| ETHYL ACETATE          | 141-78-6   | 70 - 80 Trade Secret * |
| POLY(DIMETHYLSILOXANE) | 63148-62-9 | 20 - 30 Trade Secret * |
| NAPHTHA                | 64742-48-9 | 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:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye Contact:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

**If Swallowed:**

Rinse mouth. Do not induce vomiting. Get immediate 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 flammable liquids such as dry chemical or carbon dioxide to extinguish.

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

Closed containers exposed to heat from fire may build pressure and explode.

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

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

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

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. 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**

Contain spill. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid breathing of dust created by cutting, sanding, grinding or machining. Keep away from heat/sparks/open flames/hot

surfaces. - No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.

## 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. 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              | Additional Comments |
|---------------|------------|-------------------------|-------------------------|---------------------|
| ETHYL ACETATE | 141-78-6   | ACGIH                   | TWA:400 ppm             |                     |
| ETHYL ACETATE | 141-78-6   | OSHA                    | TWA:1400 mg/m3(400 ppm) |                     |
| NAPHTHA       | 64742-48-9 | Manufacturer determined | TWA:100 ppm             |                     |

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:**

Liquid

**Specific Physical Form:**

Viscous

**Odor, Color, Grade:**

Orange liquid with characteristic organic solvent odor.

**Odor threshold**

No Data Available

|                                         |                                 |
|-----------------------------------------|---------------------------------|
| pH                                      | No Data Available               |
| Melting point                           | No Data Available               |
| Boiling Point                           | 169 °F                          |
| Flash Point                             | 25 °F [Test Method: Closed Cup] |
| Evaporation rate                        | No Data Available               |
| Flammability (solid, gas)               | Not Applicable                  |
| Flammable Limits(LEL)                   | 1.2 %                           |
| Flammable Limits(UEL)                   | 11.5 %                          |
| Vapor Pressure                          | 131 mmHg                        |
| Vapor Density                           | > 1 [Ref Std: AIR=1]            |
| Density                                 | No Data Available               |
| Specific Gravity                        | > 1 [Ref Std: WATER=1]          |
| Solubility in Water                     | Nil                             |
| 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                        | No Data Available               |
| Percent volatile                        | No Data Available               |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Sparks and/or flames

Heat

### 10.5. Incompatible materials

Strong acids

Not Applicable

### 10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u>            |
|------------------|-----------------------------|
| Formaldehyde     | Oxidation, heat or reaction |
| Carbon monoxide  | Oxidation, heat or reaction |
| Carbon dioxide   | Oxidation, heat or reaction |

## 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:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

##### Skin Contact:

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

##### 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.

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.

#### Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### Acute Toxicity

| Name                   | Route                      | Species | Value                                           |
|------------------------|----------------------------|---------|-------------------------------------------------|
| Overall product        | Dermal                     |         | No data available; calculated ATE > 5,000 mg/kg |
| Overall product        | Inhalation-Vapor(4 hr)     |         | No data available; calculated ATE > 50 mg/l     |
| Overall product        | Ingestion                  |         | No data available; calculated ATE > 5,000 mg/kg |
| ETHYL ACETATE          | Dermal                     | Rabbit  | LD50 > 18,000 mg/kg                             |
| ETHYL ACETATE          | Inhalation-Vapor (4 hours) | Rat     | LC50 70.5 mg/l                                  |
| ETHYL ACETATE          | Ingestion                  | Rat     | LD50 5,620 mg/kg                                |
| POLY(DIMETHYLSILOXANE) | Dermal                     | Rabbit  | LD50 > 19,400 mg/kg                             |
| POLY(DIMETHYLSILOXANE) | Ingestion                  | Rat     | LD50 > 17,000 mg/kg                             |
| NAPHTHA                | Inhalation-Vapor           |         | LC50 estimated to be 20 - 50 mg/l               |
| NAPHTHA                | Dermal                     | Rabbit  | LD50 > 3,000 mg/kg                              |
| NAPHTHA                | Ingestion                  | Rat     | LD50 > 5,000 mg/kg                              |

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

| Name                   | Species | Value                     |
|------------------------|---------|---------------------------|
| ETHYL ACETATE          | Rabbit  | Minimal irritation        |
| POLY(DIMETHYLSILOXANE) | Rabbit  | No significant irritation |
| NAPHTHA                | Rabbit  | Irritant                  |

#### Serious Eye Damage/Irritation

| Name                   | Species | Value                     |
|------------------------|---------|---------------------------|
| ETHYL ACETATE          | Rabbit  | Mild irritant             |
| POLY(DIMETHYLSILOXANE) | Rabbit  | No significant irritation |
| NAPHTHA                | Rabbit  | No significant irritation |

#### Skin Sensitization

| Name          | Species    | Value           |
|---------------|------------|-----------------|
| ETHYL ACETATE | Guinea pig | Not sensitizing |
| NAPHTHA       | Guinea pig | 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                                                                        |
|---------------|----------|------------------------------------------------------------------------------|
| ETHYL ACETATE | In Vitro | Not mutagenic                                                                |
| ETHYL ACETATE | In vivo  | Not mutagenic                                                                |
| NAPHTHA       | In vivo  | Not mutagenic                                                                |
| NAPHTHA       | In Vitro | Some positive data exist, but the data are not sufficient for classification |

#### Carcinogenicity

| Name    | Route      | Species          | Value                                                                        |
|---------|------------|------------------|------------------------------------------------------------------------------|
| NAPHTHA | Dermal     | Mouse            | Some positive data exist, but the data are not sufficient for classification |
| NAPHTHA | Inhalation | Human and animal | 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    |
|---------|------------|--------------------------|---------|----------------|----------------------|
| NAPHTHA | Inhalation | Not toxic to development | Rat     | NOAEL 2.4 mg/l | during organogenesis |

#### Target Organ(s)

##### Specific Target Organ Toxicity - single exposure

| Name          | Route      | Target Organ(s)                   | Value                                                         | Species | Test Result         | Exposure Duration |
|---------------|------------|-----------------------------------|---------------------------------------------------------------|---------|---------------------|-------------------|
| ETHYL ACETATE | Inhalation | central nervous system depression | May cause drowsiness or dizziness                             | Human   | NOAEL Not available |                   |
| ETHYL ACETATE | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for | Human   | NOAEL Not available |                   |

|               |            |                                   | classification                                                               |                        |                     |         |
|---------------|------------|-----------------------------------|------------------------------------------------------------------------------|------------------------|---------------------|---------|
| ETHYL ACETATE | Ingestion  | central nervous system depression | May cause drowsiness or dizziness                                            | Human                  | NOAEL Not available |         |
| NAPHTHA       | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human and animal       | NOAEL Not available |         |
| NAPHTHA       | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification |                        | NOAEL Not available |         |
| NAPHTHA       | Inhalation | nervous system                    | Some positive data exist, but the data are not sufficient for classification | Dog                    | NOAEL 6.5 mg/l      | 4 hours |
| NAPHTHA       | Ingestion  | central nervous system depression | May cause drowsiness or dizziness                                            | Professional judgement | NOAEL Not available |         |

**Specific Target Organ Toxicity - repeated exposure**

| Name          | Route      | Target Organ(s)                                           | Value                                                                        | Species                 | Test Result           | Exposure Duration |
|---------------|------------|-----------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|-----------------------|-------------------|
| ETHYL ACETATE | Inhalation | endocrine system   liver   nervous system                 | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 0.043 mg/l      | 90 days           |
| ETHYL ACETATE | Inhalation | hematopoietic system                                      | Some positive data exist, but the data are not sufficient for classification | Rabbit                  | LOAEL 16 mg/l         | 40 days           |
| ETHYL ACETATE | Ingestion  | hematopoietic system   liver   kidney and/or bladder      | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 3,600 mg/kg/day | 90 days           |
| NAPHTHA       | Inhalation | nervous system                                            | Some positive data exist, but the data are not sufficient for classification | Rat                     | LOAEL 4.6 mg/l        | 6 months          |
| NAPHTHA       | Inhalation | kidney and/or bladder                                     | Some positive data exist, but the data are not sufficient for classification | Rat                     | LOAEL 1.9 mg/l        | 13 weeks          |
| NAPHTHA       | Inhalation | respiratory system                                        | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL 0.6 mg/l        | 90 days           |
| NAPHTHA       | Inhalation | bone, teeth, nails, and/or hair   blood   liver   muscles | All data are negative                                                        | Rat                     | NOAEL 5.6 mg/l        | 12 weeks          |
| NAPHTHA       | Inhalation | heart                                                     | All data are negative                                                        | Multiple animal species | NOAEL 1.3 mg/l        | 90 days           |

**Aspiration Hazard**

| Name    | Value             |
|---------|-------------------|
| NAPHTHA | Aspiration hazard |

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.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

## 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 - Yes   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

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:** 1 **Flammability:** 3 **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:** 17-9416-3  
**Issue Date:** 02/25/16

**Version Number:** 8.00  
**Supersedes Date:** 11/30/15

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## Safety Data Sheet

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 21-2017-8 | <b>Version Number:</b>  | 10.00    |
| <b>Issue Date:</b>     | 02/25/16  | <b>Supersedes Date:</b> | 10/09/14 |

### 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>     | 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.

**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****Condition**

Carbon monoxide  
Carbon dioxide  
Irritant Vapors or Gases

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.

| Ingredient            | C.A.S. No. | Agency | Limit type                                                                                                              | Additional Comments         |
|-----------------------|------------|--------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 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**

|                                                      |                              |
|------------------------------------------------------|------------------------------|
| <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 [Ref Std: WATER=1] |
| <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>Molecular weight</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.

#### 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.

| Ingredient              | CAS No.    | Class Description              | Regulation                                  |
|-------------------------|------------|--------------------------------|---------------------------------------------|
| 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  | 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                             | Professional judgment | 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

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

**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   | premating & during gestation |

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

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

**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**

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.

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.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ EXPRESS™ 2 PENTA™ PUTTY BASE

#### 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.

**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>         |
|-----------------------------------------|-------------------|------------------------|
| SILANE TREATED QUARTZ                   | None              | 65 - 75 Trade Secret * |
| VINYL POLYDIMETHYLSILOXANE              | 68083-19-2        | 10 - 20 Trade Secret * |
| PARAFFIN OILS                           | 8012-95-1         | 1 - 10 Trade Secret *  |
| DIMETHYL METHYL HYDROGEN SILICONE FLUID | 68037-59-2        | < 5 Trade Secret *     |
| ALUMINUM OXIDE                          | 1344-28-1         | < 2 Trade Secret *     |
| C.I. PIGMENT BLUE 28 (COBALT COMPOUND)  | 1345-16-0         | < 1 Trade Secret *     |
| CHROMIUM OXIDE (C.I. 77288)             | 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

**Condition**

During Combustion  
During Combustion

Irritant Vapors or Gases

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. 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 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 |
|----------------|------------|--------|--------------------------------------------------------------|---------------------|
| ALUMINUM OXIDE | 1344-28-1  | CMRG   | TWA:1 fiber/cc                                               |                     |
| ALUMINUM OXIDE | 1344-28-1  | OSHA   | TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3 |                     |
| PARAFFIN OILS  | 8012-95-1  | CMRG   | TWA(as mist):0.5 mg/m3;STEL(as mist):10 mg/m3                |                     |
| PARAFFIN OILS  | 8012-95-1  | OSHA   | TWA(as mist):5 mg/m3                                         |                     |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

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

Use in a well-ventilated area.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:  
Safety Glasses with side shields

#### Skin/hand protection

See Section 7.1 for additional information on skin protection.

#### Respiratory protection

None required.

## SECTION 9: Physical and chemical properties

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

|                                         |                                      |
|-----------------------------------------|--------------------------------------|
| General Physical Form:                  | Solid                                |
| Specific Physical Form:                 | Paste                                |
| Odor, Color, Grade:                     | Odorless, green, paste               |
| 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                                 | Approximately 1.7                    |
| Specific Gravity                        | Approximately 1.7 [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                        | No Data Available                    |
| 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 bases

Strong oxidizing agents

Strong acids

**10.6. Hazardous decomposition products****Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

**SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure.

The information below represents toxicological information associated with the individual components of the uncured product. Once properly mixed and/or cured, the product is safe for its intended use.

**11.1. Information on Toxicological effects****Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

**Inhalation:**

No known health effects.

**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.

**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                             |
| PARAFFIN OILS                           | Dermal                         |         | LD50 estimated to be > 5,000 mg/kg              |
| PARAFFIN OILS                           | Ingestion                      | Rat     | LD50 > 24,000 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                              |
| 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 (C.I. 77288)             | Ingestion                      | Rat     | LD50 > 5,000 mg/kg                              |
| C.I. PIGMENT BLUE 28 (COBALT COMPOUND)  | Ingestion                      | Rat     | LD50 > 10,000 mg/kg                             |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                       | Species | Value                     |
|----------------------------|---------|---------------------------|
| VINYL POLYDIMETHYLSILOXANE | Rabbit  | No significant irritation |
| ALUMINUM OXIDE             | Rabbit  | No significant irritation |

**Serious Eye Damage/Irritation**

| Name                       | Species | Value                     |
|----------------------------|---------|---------------------------|
| VINYL POLYDIMETHYLSILOXANE | Rabbit  | Mild irritant             |
| ALUMINUM OXIDE             | Rabbit  | No significant irritation |

**Skin Sensitization**

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

**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         |
|----------------|----------|---------------|
| ALUMINUM OXIDE | In Vitro | Not mutagenic |

**Carcinogenicity**

| Name           | Route      | Species | Value            |
|----------------|------------|---------|------------------|
| ALUMINUM OXIDE | Inhalation | Rat     | Not carcinogenic |

**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**

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

**Specific Target Organ Toxicity - repeated exposure**

| Name           | Route      | Target Organ(s) | Value                             | Species | Test Result | Exposure Duration |
|----------------|------------|-----------------|-----------------------------------|---------|-------------|-------------------|
| ALUMINUM OXIDE | Inhalation | pneumoconiosis  | Some positive data exist, but the | Human   | NOAEL Not   | occupational      |

|  |  |                    |                                            |  |           |          |
|--|--|--------------------|--------------------------------------------|--|-----------|----------|
|  |  | pulmonary fibrosis | data are not sufficient for classification |  | available | exposure |
|--|--|--------------------|--------------------------------------------|--|-----------|----------|

**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.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. 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):** D007 (Chromium)

**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

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

| <u><b>Ingredient</b></u> | <u><b>C.A.S. No</b></u> | <u><b>% by Wt</b></u> |
|--------------------------|-------------------------|-----------------------|
| ALUMINUM OXIDE           | 1344-28-1               | Trade Secret < 2      |

**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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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ EXPRESS™ 2 PENTA™ PUTTY CATALYST

#### Product Identification Numbers

41-8650-2636-7, 41-8650-2709-2

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

##### Recommended use

Dental material, 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.

**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>         |
|-------------------------------|-------------------|------------------------|
| SODIUM ALUMINUM SILICATE      | 37244-96-5        | 60 - 80 Trade Secret * |
| VINYL POLYDIMETHYLSILOXANE    | 68083-19-2        | 10 - 30 Trade Secret * |
| WHITE MINERAL OIL (PETROLEUM) | 8042-47-5         | < 5 Trade Secret *     |
| POLY(DIMETHYLSILOXANE)        | 63148-62-9        | < 3 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:**

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.

**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**

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            |
|-----------------------------------|------------|--------|---------------------------------|--------------------------------|
| SODIUM ALUMINUM SILICATE          | 37244-96-5 | CMRG   | TWA(respirable):5 mg/m3         |                                |
| MINERAL OILS, HIGHLY-REFINED OILS | 8042-47-5  | ACGIH  | TWA(inhalable fraction):5 mg/m3 | A4: Not class. as human carcin |
| Paraffin oil                      | 8042-47-5  | OSHA   | TWA(as mist):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:                     | characteristic odor, white, paste |
| Odor threshold                          | No Data Available                 |
| pH                                      | Not Applicable                    |
| Melting point                           | No Data Available                 |
| Boiling Point                           | Not Applicable                    |
| 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                                 | >=1.8 g/cm3                       |
| Specific Gravity                        | >=1.8 [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                        | No Data Available                 |
| 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  
Amines  
Strong bases  
Strong acids  
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 ATE 2,000 - 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              |
| VINYL POLYDIMETHYLSILOXANE    | Dermal    | Rabbit | LD50 > 15,440 mg/kg                                   |
| VINYL POLYDIMETHYLSILOXANE    | Ingestion | Rat    | LD50 > 15,440 mg/kg                                   |
| WHITE MINERAL OIL (PETROLEUM) | Dermal    | Rabbit | LD50 > 2,000 mg/kg                                    |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Rat    | LD50 > 5,000 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                     |
|-------------------------------|------------------------|---------------------------|
| SODIUM ALUMINUM SILICATE      | Professional judgement | No significant irritation |
| VINYL POLYDIMETHYLSILOXANE    | Rabbit                 | No significant irritation |
| WHITE MINERAL OIL (PETROLEUM) | Rabbit                 | No significant irritation |
| POLY(DIMETHYLSILOXANE)        | Rabbit                 | No significant irritation |

### Serious Eye Damage/Irritation

| Name                          | Species                | Value                     |
|-------------------------------|------------------------|---------------------------|
| SODIUM ALUMINUM SILICATE      | Professional judgement | Mild irritant             |
| VINYL POLYDIMETHYLSILOXANE    | Rabbit                 | Mild irritant             |
| WHITE MINERAL OIL (PETROLEUM) | Rabbit                 | Mild irritant             |
| POLY(DIMETHYLSILOXANE)        | Rabbit                 | No significant irritation |

### Skin Sensitization

| Name                          | Species    | Value           |
|-------------------------------|------------|-----------------|
| WHITE MINERAL OIL (PETROLEUM) | Guinea pig | 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         |
|-------------------------------|----------|---------------|
| WHITE MINERAL OIL (PETROLEUM) | In Vitro | Not mutagenic |

### Carcinogenicity

| Name                          | Route      | Species                 | Value            |
|-------------------------------|------------|-------------------------|------------------|
| WHITE MINERAL OIL (PETROLEUM) | Dermal     | Mouse                   | Not carcinogenic |
| WHITE MINERAL OIL (PETROLEUM) | Inhalation | Multiple animal species | Not carcinogenic |

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

| Name                          | Route     | Value                            | Species | Test Result           | Exposure Duration |
|-------------------------------|-----------|----------------------------------|---------|-----------------------|-------------------|
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Not toxic to female reproduction | Rat     | NOAEL 4,350 mg/kg/day | 13 weeks          |

|                               |           |                                |     |                       |                  |
|-------------------------------|-----------|--------------------------------|-----|-----------------------|------------------|
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Not toxic to male reproduction | Rat | NOAEL 4,350 mg/kg/day | 13 weeks         |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | Not toxic to development       | Rat | NOAEL 4,350 mg/kg/day | during gestation |

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

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

**Specific Target Organ Toxicity - repeated exposure**

| Name                          | Route     | Target Organ(s)       | Value                                                                        | Species | Test Result           | Exposure Duration |
|-------------------------------|-----------|-----------------------|------------------------------------------------------------------------------|---------|-----------------------|-------------------|
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | hematopoietic system  | Some positive data exist, but the data are not sufficient for classification | Rat     | NOAEL 1,381 mg/kg/day | 90 days           |
| WHITE MINERAL OIL (PETROLEUM) | Ingestion | liver   immune system | Some positive data exist, but the data are not sufficient for classification | Rat     | NOAEL 1,336 mg/kg/day | 90 days           |

**Aspiration Hazard**

| Name                          | Value             |
|-------------------------------|-------------------|
| WHITE MINERAL OIL (PETROLEUM) | Aspiration hazard |

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:** 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:** 21-9839-8  
**Issue Date:** 02/25/16

**Version Number:** 4.00  
**Supersedes Date:** 10/10/14

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## Safety Data Sheet

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 21-9846-3 | <b>Version Number:</b>  | 4.00     |
| <b>Issue Date:</b>     | 02/25/16  | <b>Supersedes Date:</b> | 04/23/15 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ EXPRESS™ 2 ULTRA-LIGHT BODY QUICK CATALYST

#### Product Identification Numbers

LE-F100-0273-5

#### 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.

**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>         |
|-------------------------------------------------|-------------------|------------------------|
| CRISTOBALITE                                    | 14464-46-1        | 30 - 50 Trade Secret * |
| VINYL POLYDIMETHYSILOXANE                       | 68083-19-2        | 30 - 50 Trade Secret * |
| FUSED SILICA                                    | 60676-86-0        | 10 - 30 Trade Secret * |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | 67762-90-7        | 1 - 10 Trade Secret *  |
| POLY(DIMETHYLSILOXANE)                          | 63148-62-9        | 1 - 10 Trade Secret *  |
| TRIDYMITE                                       | 15468-32-3        | < 5 Trade Secret *     |
| QUARTZ SILICA                                   | 14808-60-7        | < 0.3 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. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. 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. 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 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/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.) |                             |
| QUARTZ SILICA | 14808-60-7 | ACGIH  | TWA(respirable fraction):0.025 mg/m3                                                                                    | A2: Suspected human carcin. |
| QUARTZ SILICA | 14808-60-7 | OSHA   | TWA concentration(as total dust):0.3 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.)   |                             |

|                                                 |            |      |                                                                                                                         |  |
|-------------------------------------------------|------------|------|-------------------------------------------------------------------------------------------------------------------------|--|
| TRIDYMITE                                       | 15468-32-3 | 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                               | 60676-86-0 | OSHA | TWA concentration:0.8 mg/m3;TWA:20 millions of particles/cu. ft.                                                        |  |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | 67762-90-7 | CMRG | CEIL:5 mg/m3                                                                                                            |  |
| 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

|                                  |                          |
|----------------------------------|--------------------------|
| <b>General Physical Form:</b>    | Solid                    |
| <b>Specific Physical Form:</b>   | Paste                    |
| <b>Odor, Color, Grade:</b>       | Odorless, orange         |
| <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>               | No flash point           |
| <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>    |

|                                         |                               |
|-----------------------------------------|-------------------------------|
| Vapor Pressure                          | <i>Not Applicable</i>         |
| Vapor Density                           | <i>Not Applicable</i>         |
| Density                                 | $\geq 1.4 \text{ g/cm}^3$     |
| Specific Gravity                        | $\geq 1.4$ [Ref Std: WATER=1] |
| Solubility in Water                     | Negligible                    |
| Solubility- non-water                   | <i>No Data Available</i>      |
| Partition coefficient: n-octanol/ water | <i>Not Applicable</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 H2O & 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

Strong acids

Amines

Strong bases

Strong oxidizing agents

### 10.6. Hazardous decomposition products

#### Substance

None known.

#### Condition

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 known health effects.

##### 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.

| <u><b>Ingredient</b></u> | <u><b>CAS No.</b></u> | <u><b>Class Description</b></u> | <u><b>Regulation</b></u>                    |
|--------------------------|-----------------------|---------------------------------|---------------------------------------------|
| SILICA, CRYSTALLINE      | 14464-46-1            | Known human carcinogen          | National Toxicology Program Carcinogens     |
| SILICA, CRYSTALLINE      | 14808-60-7            | Known human carcinogen          | National Toxicology Program Carcinogens     |
| SILICA, CRYSTALLINE      | 15468-32-3            | Grp. 1: Carcinogenic to humans  | International Agency for Research on Cancer |
| SILICA, CRYSTALLINE      | 15468-32-3            | Known human carcinogen          | National Toxicology Program Carcinogens     |
| CRISTOBALITE             | 14464-46-1            | Grp. 1: Carcinogenic to humans  | International Agency for Research on Cancer |
| QUARTZ SILICA            | 14808-60-7            | 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

| <u><b>Name</b></u>                              | <u><b>Route</b></u>            | <u><b>Species</b></u> | <u><b>Value</b></u>                             |
|-------------------------------------------------|--------------------------------|-----------------------|-------------------------------------------------|
| 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              |
| FUSED SILICA                                    | Dermal                         | Rabbit                | LD50 > 5,000 mg/kg                              |
| FUSED SILICA                                    | Inhalation-Dust/Mist (4 hours) | Rat                   | LC50 > 0.691 mg/l                               |
| FUSED 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                             |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Dermal                         | Rabbit                | LD50 > 5,000 mg/kg                              |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Inhalation-Dust/Mist (4 hours) | Rat                   | LC50 > 0.691 mg/l                               |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Ingestion                      | Rat                   | LD50 > 5,110 mg/kg                              |
| TRIDYMITE                                       | Dermal                         |                       | LD50 estimated to be > 5,000 mg/kg              |

|               |           |  |                                    |
|---------------|-----------|--|------------------------------------|
| TRIDYMITE     | Ingestion |  | LD50 estimated to be > 5,000 mg/kg |
| QUARTZ SILICA | Dermal    |  | LD50 estimated to be > 5,000 mg/kg |
| QUARTZ SILICA | Ingestion |  | LD50 estimated to be > 5,000 mg/kg |

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

| Name                                            | Species                | Value                     |
|-------------------------------------------------|------------------------|---------------------------|
| VINYL POLYDIMETHYSILOXANE                       | Rabbit                 | No significant irritation |
| CRISTOBALITE                                    | Professional judgement | No significant irritation |
| FUSED SILICA                                    | Rabbit                 | No significant irritation |
| POLY(DIMETHYLSILOXANE)                          | Rabbit                 | No significant irritation |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Rabbit                 | No significant irritation |
| TRIDYMITE                                       | Professional judgement | No significant irritation |
| QUARTZ SILICA                                   | Professional judgement | No significant irritation |

#### Serious Eye Damage/Irritation

| Name                                            | Species | Value                     |
|-------------------------------------------------|---------|---------------------------|
| VINYL POLYDIMETHYSILOXANE                       | Rabbit  | Mild irritant             |
| FUSED SILICA                                    | Rabbit  | No significant irritation |
| POLY(DIMETHYLSILOXANE)                          | Rabbit  | No significant irritation |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Rabbit  | No significant irritation |

#### Skin Sensitization

| Name                                            | Species          | Value           |
|-------------------------------------------------|------------------|-----------------|
| FUSED SILICA                                    | Human and animal | Not sensitizing |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Human and animal | 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                                                                        |
|-------------------------------------------------|----------|------------------------------------------------------------------------------|
| 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 |
| FUSED SILICA                                    | In Vitro | Not mutagenic                                                                |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | In Vitro | Not mutagenic                                                                |
| TRIDYMITE                                       | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| TRIDYMITE                                       | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| QUARTZ SILICA                                   | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| QUARTZ SILICA                                   | In vivo  | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name                                            | Route         | Species          | Value                                                                        |
|-------------------------------------------------|---------------|------------------|------------------------------------------------------------------------------|
| CRISTOBALITE                                    | Inhalation    | Human and animal | Carcinogenic                                                                 |
| FUSED SILICA                                    | Not Specified | Mouse            | Some positive data exist, but the data are not sufficient for classification |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Not Specified | Mouse            | Some positive data exist, but the data are not sufficient for classification |
| TRIDYMITE                                       | Inhalation    | Human and animal | Carcinogenic                                                                 |
| QUARTZ SILICA                                   | Inhalation    | Human and animal | Carcinogenic                                                                 |

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

| Name                                            | Route      | Value                            | Species | Test Result           | Exposure Duration    |
|-------------------------------------------------|------------|----------------------------------|---------|-----------------------|----------------------|
| FUSED SILICA                                    | Ingestion  | Not toxic to female reproduction | Rat     | NOAEL 509 mg/kg/day   | 1 generation         |
| FUSED SILICA                                    | Inhalation | Not toxic to male reproduction   | Rat     | NOAEL 497 mg/kg/day   | 1 generation         |
| FUSED SILICA                                    | Ingestion  | Not toxic to development         | Rat     | NOAEL 1,350 mg/kg/day | during organogenesis |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Ingestion  | Not toxic to female reproduction | Rat     | NOAEL 509 mg/kg/day   | 1 generation         |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Ingestion  | Not toxic to male reproduction   | Rat     | NOAEL 497 mg/kg/day   | 1 generation         |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Ingestion  | Not toxic to development         | Rat     | NOAEL 1,350 mg/kg/day | during organogenesis |

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

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

**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 |
| FUSED SILICA                                    | Inhalation | respiratory system   silicosis | All data are negative                                          | Human   | NOAEL Not available | occupational exposure |
| DIMETHYL SILOXANE, REACTION PRODUCT WITH SILICA | Inhalation | respiratory system   silicosis | All data are negative                                          | Human   | NOAEL Not available | occupational exposure |
| TRIDYMITE                                       | Inhalation | silicosis                      | Causes damage to organs through prolonged or repeated exposure | Human   | NOAEL Not available | occupational exposure |
| QUARTZ SILICA                                   | Inhalation | silicosis                      | Causes damage to organs through prolonged or repeated exposure | Human   | NOAEL Not available | occupational exposure |

**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):** D007 (Chromium)

## 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.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 21-9846-3 | <b>Version Number:</b>  | 4.00     |
| <b>Issue Date:</b>     | 02/25/16  | <b>Supersedes Date:</b> | 04/23/15 |

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## Safety Data Sheet

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
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### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ EXPRESS™ 2 ULTRA-LIGHT BODY QUICK BASE

#### Product Identification Numbers

LE-F100-0273-6

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

##### Recommended use

Dental Product, Dental 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.

**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        | 25 - 35 Trade Secret * |
| DIMETHYL METHYL HYDROGEN SILICONE FLUID  | 68037-59-2        | 10 - 15 Trade Secret * |
| POLY(DIMETHYLSILOXANE)                   | 63148-62-9        | 1 - 10 Trade Secret *  |
| SILANE TREATED SILICA                    | 67762-90-7        | 1 - 10 Trade Secret *  |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | 27306-78-1        | < 2 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**

|                                                |                                   |
|------------------------------------------------|-----------------------------------|
| <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 g/ml                          |
| <b>Specific Gravity</b>                        | >=1.2 [ <i>Ref Std: WATER=1</i> ] |
| <b>Solubility in Water</b>                     | Nil                               |
| <b>Solubility- non-water</b>                   | <i>No Data Available</i>          |
| <b>Partition coefficient: n-octanol/ water</b> | <i>Not Applicable</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 H2O &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 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.

#### 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.

| <u><b>Ingredient</b></u> | <u><b>CAS No.</b></u> | <u><b>Class Description</b></u> | <u><b>Regulation</b></u>                    |
|--------------------------|-----------------------|---------------------------------|---------------------------------------------|
| SILICA, CRYSTALLINE      | 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**

| <b>Name</b>                              | <b>Route</b>                   | <b>Species</b> | <b>Value</b>                                    |
|------------------------------------------|--------------------------------|----------------|-------------------------------------------------|
| 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  | Ingestion                      | Rat            | LD50 > 2,000 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                              |
| 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**

| <b>Name</b>                              | <b>Species</b>         | <b>Value</b>              |
|------------------------------------------|------------------------|---------------------------|
| VINYL POLYDIMETHYLSILOXANE               | Rabbit                 | No significant irritation |
| CRISTOBALITE                             | Professional judgement | No significant irritation |
| POLY(DIMETHYLSILOXANE)                   | Rabbit                 | No significant irritation |
| SILANE TREATED SILICA                    | Rabbit                 | No significant irritation |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Rabbit                 | No significant irritation |

**Serious Eye Damage/Irritation**

| <b>Name</b>                              | <b>Species</b> | <b>Value</b>              |
|------------------------------------------|----------------|---------------------------|
| VINYL POLYDIMETHYLSILOXANE               | Rabbit         | Mild irritant             |
| POLY(DIMETHYLSILOXANE)                   | Rabbit         | No significant irritation |
| SILANE TREATED SILICA                    | Rabbit         | No significant irritation |
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Rabbit         | Severe irritant           |

**Skin Sensitization**

| <b>Name</b>           | <b>Species</b>   | <b>Value</b>    |
|-----------------------|------------------|-----------------|
| SILANE TREATED SILICA | Human and animal | Not sensitizing |

|                                          |            |                 |
|------------------------------------------|------------|-----------------|
| POLYETHYLENE GLYCOL, SILOXANE TERMINATED | Guinea pig | 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                                                                        |
|------------------------------------------|----------|------------------------------------------------------------------------------|
| 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   | prematings & during gestation |

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

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

#### 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

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. Proper destruction may require the use of additional fuel during incineration processes. 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.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
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