



Safety Data Sheet

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|------------------------|-----------|-------------------------|----------|
| Document Group: | 31-6602-2 | Version Number: | 1.02 |
| Issue Date: | 04/15/15 | Supersedes Date: | 05/20/14 |

Product identifier

3M™ ESPE™ IMPRINT™ 4 REGULAR REFILL

ID Number(s):

70-2011-4142-4

Recommended use

Dental Product, Impression Material

Restrictions on use

For use only by dental professionals.

Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | 3M ESPE Dental Products |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

Emergency telephone number

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

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

31-4882-2, 31-4879-8

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Safety Data Sheet

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| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 31-4882-2 | Version Number: | 4.01 |
| Issue Date: | 11/07/18 | Supersedes Date: | 07/20/18 |

SECTION 1: Identification

1.1. Product identifier

3M™ ESPE™IMPRINT™ 4 REGULAR CATALYST

Product Identification Numbers

LE-F100-1310-0

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression Material

Restrictions on use

For use only by dental professionals.

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Oral Care Solutions Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

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

2.1. Hazard classification

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

2.2. Label elements

Signal word

Not applicable.

Symbols

Not applicable.

Pictograms

Not applicable.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|----------------------------|------------|------------------------|
| VINYL-POLYDIMETHYLSILOXANE | 68083-19-2 | 40 - 60 Trade Secret * |
| CRISTOBALITE | 14464-46-1 | 25 - 45 Trade Secret * |
| POLY(DIMETHYLSILOXANE) | 63148-62-9 | 1 - 10 Trade Secret * |
| SILANE TREATED SILICA | 67762-90-7 | 1 - 10 Trade Secret * |
| C.I. PIGMENT YELLOW 109 | 5045-40-9 | < 2 Trade Secret * |
| C.I. PIGMENT BLUE 28 | 1345-16-0 | < 1 Trade Secret * |

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

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

Skin Contact:

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

Eye Contact:

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

If Swallowed:

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

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

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide

Carbon dioxide

Condition

During Combustion

During Combustion

Irritant Vapors or Gases

During Combustion

5.3. Special protective actions for fire-fighters

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

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

Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

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

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

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents. Store away from amines.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|-----------------------------|------------|--------|---|------------------------------|
| Cobalt, inorganic compounds | 1345-16-0 | ACGIH | TWA(as Co):0.02 mg/m ³ | A3: Confirmed animal carcin. |
| CRISTOBALITE | 14464-46-1 | ACGIH | TWA(respirable fraction):0.025 mg/m ³ | A2: Suspected human carcin. |
| CRISTOBALITE | 14464-46-1 | OSHA | TWA concentration(respirable):0.05 mg/m ³ (1.2 millions of particles/cu. ft.);TWA:0.05 mg/m ³ | |
| SILICA, AMORPHOUS | 67762-90-7 | OSHA | TWA concentration:0.8 mg/m ³ ;TWA:20 millions of particles/cu. ft. | |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Safety Glasses with side shields

Skin/hand protection

See Section 7.1 for additional information on skin protection.

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| General Physical Form: | Solid |
| Specific Physical Form: | Paste |
| Odor, Color, Grade: | Slight characteristic odor; white colored paste |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>Not Applicable</i> |
| Melting point | <i>Not Applicable</i> |
| Boiling Point | <i>Not Applicable</i> |
| Flash Point | No flash point |
| Evaporation rate | <i>Not Applicable</i> |
| Flammability (solid, gas) | Not Classified |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |
| Vapor Pressure | <i>No Data Available</i> |
| Vapor Density | <i>No Data Available</i> |
| Density | 1.2 g/cm ³ - 1.4 g/cm ³ |
| Specific Gravity | 1.2 - 1.4 [Ref Std: WATER=1] |
| Solubility in Water | Negligible |
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | <i>Not Applicable</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

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:

This product may have a characteristic odor; however, no adverse health effects are anticipated.

Skin Contact:

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

Eye Contact:

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

Ingestion:

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

Additional Health Effects:**Carcinogenicity:**

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

Contains a chemical or chemicals which can cause cancer.

| Ingredient | CAS No. | Class Description | Regulation |
|--|------------|--------------------------------|---|
| SILICA, CRYST AIRRESP | 14464-46-1 | Known human carcinogen | National Toxicology Program Carcinogens |
| Generic: Cobalt compounds | 1345-16-0 | Anticipated human carcinogen | National Toxicology Program Carcinogens |
| Generic: Cobalt and inorganic cobalt compounds | 1345-16-0 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Generic: Cobalt and inorganic cobalt compounds | 1345-16-0 | Anticipated 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 |
| 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 |
| C.I. PIGMENT BLUE 28 | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| C.I. PIGMENT BLUE 28 | Ingestion | Rat | LD50 > 10,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|----------------------------|------------------------|---------------------------|
| VINYL-POLYDIMETHYLSILOXANE | 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-POLYDIMETHYLSILOXANE | 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 classified |
|-----------------------|------------------|----------------|

Respiratory Sensitization

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

Germ Cell Mutagenicity

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

Carcinogenicity

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

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

| Name | Route | Value | Species | Test Result | Exposure Duration |
|-----------------------|-----------|--|---------|-----------------------|----------------------|
| SILANE TREATED SILICA | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| SILANE TREATED SILICA | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| SILANE TREATED SILICA | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |

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 | Not classified | 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): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Not applicable

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

| <u>Ingredient</u> | <u>C.A.S. No</u> | <u>% by Wt</u> |
|--|------------------|----------------|
| C.I. PIGMENT BLUE 28 (Cobalt, inorganic compounds) | 1345-16-0 | < 1 |

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

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

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

This material contains one or more substances not listed on the TSCA Inventory. Commercial use of this material is regulated by the FDA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 0 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 31-4882-2 | Version Number: | 4.01 |
| Issue Date: | 11/07/18 | Supersedes Date: | 07/20/18 |

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3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

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| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 31-4879-8 | Version Number: | 4.00 |
| Issue Date: | 02/21/19 | Supersedes Date: | 02/14/19 |

SECTION 1: Identification

1.1. Product identifier

3M™ ESPE™IMPRINT™ 4 REGULAR BASE

Product Identification Numbers

LE-F100-1309-8

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Impression material

Restrictions on use

For use only by dental professionals.

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Oral Care Solutions Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

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

2.1. Hazard classification

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

2.2. Label elements

Signal word

Not applicable.

Symbols

Not applicable.

Pictograms

Not applicable.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--|---------------|------------------------|
| VINYL-POLYDIMETHYL SILOXANE | 68083-19-2 | 30 - 50 Trade Secret * |
| CRISTOBALITE | 14464-46-1 | 20 - 30 Trade Secret * |
| DIMETHYL METHYL HYDROGEN SILICONE FLUID | 68037-59-2 | 10 - 20 Trade Secret * |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | 27306-78-1 | 1 - 10 Trade Secret * |
| SILANE TREATED SILICA | 67762-90-7 | 1 - 10 Trade Secret * |
| ALLYLTRIMETHYLSILANE | 762-72-1 | < 5 Trade Secret * |
| FLUORINATED POLYETHER | Trade Secret* | 1 - 5 Trade Secret * |
| Oils, mint, Mentha arvensis piperascensis, var. piperascens, Labiatae. | 68917-18-0 | < 0.5 Trade Secret * |
| QUARTZ SILICA | 14808-60-7 | < 0.5 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:

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

| <u>Substance</u> | <u>Condition</u> |
|--------------------------|-------------------|
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Irritant Vapors or Gases | During Combustion |

5.3. Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents. Store away from amines.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|-------------------|-------------------|---------------|--|-----------------------------|
| CRISTOBALITE | 14464-46-1 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |
| CRISTOBALITE | 14464-46-1 | OSHA | TWA concentration(respirable):0.05 mg/m3(1.2 millions of particles/cu. ft.);TWA:0.05 mg/m3 | |
| QUARTZ SILICA | 14808-60-7 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |

| | | | |
|-------------------|------------|------|--|
| QUARTZ SILICA | 14808-60-7 | OSHA | TWA Table Z-1(respirable):0.05 mg/m3;TWA Table Z-3(respirable):0.1 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

| | |
|----------------------------------|----------------------------------|
| General Physical Form: | Solid |
| Specific Physical Form: | Paste |
| Odor, Color, Grade: | Smell of mint; white color paste |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>Not Applicable</i> |
| Melting point | <i>Not Applicable</i> |
| Boiling Point | <i>Not Applicable</i> |
| Flash Point | No flash point |
| Evaporation rate | <i>Not Applicable</i> |
| Flammability (solid, gas) | Not Classified |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |
| Vapor Pressure | <i>No Data Available</i> |
| Vapor Density | <i>No Data Available</i> |
| Density | 1.1 g/cm3 - 1.3 g/cm3 |
| Specific Gravity | 1.1 - 1.3 [Ref Std: WATER=1] |
| Solubility in Water | Negligible |
| Solubility- non-water | <i>No Data Available</i> |

| | |
|---|-------------------|
| Partition coefficient: n-octanol/ water | No Data Available |
| Autoignition temperature | Not Applicable |
| Decomposition temperature | No Data Available |
| Viscosity | 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 acids
Strong bases
Strong oxidizing agents

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

This document has been prepared in accordance with the U.S. OSHA Hazard Communication Standard, which requires the inclusion of all known hazards of the product or ingredients regardless of the potential risk. The risks of the hazards communicated in this document may vary depending on the potential for exposure. The information below represents toxicological information associated with the individual components of the uncured product. Once properly mixed and/or cured, the product is safe for its intended use.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation:

This product may have a characteristic odor; however, no adverse health effects are anticipated.

Skin Contact:

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.

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, CRYSTALLINE | 14464-46-1 | Known human carcinogen | National Toxicology Program Carcinogens |
| SILICA, AMORPHOUS | 14808-60-7 | 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

| Name | Route | Species | Value |
|---|--------------------------------|------------------------|--|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| VINYL-POLYDIMETHYL SILOXANE | Dermal | Rabbit | LD50 > 15,440 mg/kg |
| VINYL-POLYDIMETHYL SILOXANE | 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 |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | Inhalation-Dust/Mist (4 hours) | Rat | LC50 2 mg/l |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | Ingestion | Rat | LD50 > 2,000 mg/kg |
| ALLYLTRIMETHYLSILANE | Dermal | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| ALLYLTRIMETHYLSILANE | Ingestion | similar compounds | LD50 estimated to be 2,000 - 5,000 mg/kg |
| FLUORINATED POLYETHER | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |

| | | | |
|--|-----------|----------------------|------------------------------------|
| | | nal judgeme nt | |
| FLUORINATED POLYETHER | Ingestion | Rat | LD50 > 1,000 mg/kg |
| Oils, mint, Mentha arvensis piperascensis, var. piperascens, Labiatae. | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Oils, mint, Mentha arvensis piperascensis, var. piperascens, Labiatae. | Ingestion | Rat | LD50 1,240 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-POLYDIMETHYL SILOXANE | Rabbit | No significant irritation |
| CRISTOBALITE | Professio nal judgeme nt | No significant irritation |
| SILANE TREATED SILICA | Rabbit | No significant irritation |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | Rabbit | No significant irritation |
| ALLYLTRIMETHYLSILANE | Not available | Irritant |
| Oils, mint, Mentha arvensis piperascensis, var. piperascens, Labiatae. | Rabbit | Mild irritant |
| QUARTZ SILICA | Professio nal judgeme nt | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|------------------|---------------------------|
| VINYL-POLYDIMETHYL SILOXANE | Rabbit | Mild irritant |
| SILANE TREATED SILICA | Rabbit | No significant irritation |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | Rabbit | Severe irritant |
| ALLYLTRIMETHYLSILANE | Not available | Severe irritant |
| Oils, mint, Mentha arvensis piperascensis, var. piperascens, Labiatae. | In vitro data | Severe irritant |

Skin Sensitization

| Name | Species | Value |
|--|------------------------|----------------|
| SILANE TREATED SILICA | Human and animal | Not classified |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | Guinea pig | Not classified |
| Oils, mint, Mentha arvensis piperascensis, var. piperascens, Labiatae. | Guinea pig | 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 |

| | | |
|---|----------|--|
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | In Vitro | Not mutagenic |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | In vivo | Not mutagenic |
| ALLYLTRIMETHYLSILANE | In Vitro | Not mutagenic |
| 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 |
| SILANE TREATED SILICA | Not Specified | Mouse | Some positive data exist, but the data are not sufficient for classification |
| QUARTZ SILICA | Inhalation | Human and animal | Carcinogenic |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|---|-----------|--|---------|-----------------------|--------------------------------|
| SILANE TREATED SILICA | Ingestion | Not classified for female reproduction | Rat | NOAEL 509 mg/kg/day | 1 generation |
| SILANE TREATED SILICA | Ingestion | Not classified for male reproduction | Rat | NOAEL 497 mg/kg/day | 1 generation |
| SILANE TREATED SILICA | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |
| POLYALKYLENEOXIDE MODIFIED HEPTAMETHYLTRISILOXANE | Ingestion | Not classified for reproduction and/or development | Rat | NOAEL 450 mg/kg/day | prematuring & during gestation |
| FLUORINATED POLYETHER | Ingestion | Not classified for reproduction and/or development | Rat | NOAEL 1,000 mg/kg/day | prematuring into lactation |
| FLUORINATED POLYETHER | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | prematuring into lactation |
| FLUORINATED POLYETHER | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | prematuring into lactation |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|----------------------|------------|------------------------|----------------------------------|---------------|---------------------|-------------------|
| ALLYLTRIMETHYLSILANE | Inhalation | respiratory irritation | May cause respiratory irritation | Not available | NOAEL Not available | |

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 | Not classified | Human | NOAEL Not available | occupational exposure |
| FLUORINATED POLYETHER | Ingestion | auditory system heart endocrine system hematopoietic system liver immune system muscles nervous system eyes | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |

| | | | | | | |
|---------------|------------|-----------|--|-------|---------------------|-----------------------|
| 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.

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): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Not applicable

Additional TSCA Information

| <u>Components</u> | <u>CAS No</u> | <u>Additional Information</u> |
|-----------------------|---------------|---|
| FLUORINATED POLYETHER | Trade Secret | Manufacturing of this substance is strictly prohibited of an average molecular weight (MW) less than 1000 daltons, or |

| | |
|--|---|
| | more than 5 percent oligomeric material less than 500 daltons, or 10 percent oligomeric material less than 1000 daltons. |
|--|---|

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:** 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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