# **SAFETY DATA SHEETS**

# This SDS packet was issued with item:

075028428

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

075028360 075028378 075028386 075028394 075028402 075028410



# **Material Safety Data Sheet**

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**PRODUCT NAME:** 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY REFILL

**MANUFACTURER:** 3M

**DIVISION:** 3M ESPE Dental Products

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

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

Issue Date: 01/28/13
Supercedes Date: Initial Issue

**Document Group:** 31-6693-1

### **ID** Number(s):

70-2011-4147-3

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

31-4838-4, 31-4841-8

No revision information is available.

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MATERIAL SAFETY DATA SHEET 3M <sup>TM</sup> ESPE <sup>TM</sup> IMPRINT <sup>TM</sup> 4 HEAVY REFILL 01/28/13	
In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3	Μ
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# **Material Safety Data Sheet**

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# **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY BASE

**MANUFACTURER:** 3M

**DIVISION:** 3M ESPE Dental Products

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

### EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 01/09/13 **Supercedes Date:** 01/03/13

**Document Group:** 31-4838-4

**Product Use:** 

Intended Use: Dental Product

Limitations on Use: For us only by dental professionals.

Specific Use: Impression Material

# **SECTION 2: INGREDIENTS**

<u>Ingredient</u>	<u>C.A.S. No.</u>	% by Wt
CRISTOBALITE	14464-46-1	35 - 45
VINYL-POLYDIMETHYL SILOXANE	68083-19-2	20 - 30
FUSED SILICA	60676-86-0	1 - 10
SILANE TREATED SILICA	67762-90-7	1 - 10
DIMETHYL METHYL HYDROGEN SILICONE FLUID	68037-59-2	1 - 10
ALLYLTRIMETHYLSILANE	762-72-1	< 5
TRIDYMITE	15468-32-3	< 5
POLY(DIMETHYLSILOXANE)	63148-62-9	< 5
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	27306-78-1	< 5.0
QUARTZ SILICA	14808-60-7	< 1
CORNMINT OIL	68917-18-0	< 0.5

# **SECTION 3: HAZARDS IDENTIFICATION**

## 3.1 EMERGENCY OVERVIEW

### MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY BASE 01/09/13

**Specific Physical Form:** Paste

Odor, Color, Grade: smell of mint white colored paste

General Physical Form: Solid

Immediate health, physical, and environmental hazards: May cause allergic skin reaction. 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.

## 3.2 POTENTIAL HEALTH EFFECTS

### **Eve Contact:**

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

### Skin Contact:

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

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

### **Inhalation:**

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

### Ingestion:

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

### **Target Organ Effects:**

This product contains Cristobalite (CASRN 14464-46-1). Cancer of the lungs and silicosis has been associated with cristobalite. No exposure to cristobalite is anticipated during normal intended handling of the paste or cured material and therefore, the health effects associated with cristobalite are not expected during the foreseeable use of this product.

This product contains quartz silica. Quartz silica is a form of crystalline silica. Occupational exposure to inhaled crystalline silica has been associated with silicosis and lung cancer. No exposure to crystalline silica is expected during the normal handling and use of this product.

# **SECTION 4: FIRST AID MEASURES**

# 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** No need for first aid is anticipated.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## **SECTION 5: FIRE FIGHTING MEASURES**

# 5.1 FLAMMABLE PROPERTIES

Autoignition temperatureNo Data AvailableFlash PointNo flash pointFlammable Limits(LEL)Not Applicable

Page 2 of 7

### MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY BASE 01/09/13

Flammable Limits(UEL)

Not Applicable

### 5.2 EXTINGUISHING MEDIA

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g., water, foam).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

# SECTION 6: ACCIDENTAL RELEASE MEASURES

## 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air.

### **6.2.** Environmental precautions

Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Collect as much of the spilled material as possible. Clean up residue.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

# **SECTION 7: HANDLING AND STORAGE**

## 7.1 HANDLING

Avoid eye contact. Do not ingest. Wash hands after handling and before eating. Avoid eye contact with dust or airborne particles. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment.

### 7.2 STORAGE

Store away from heat. Store out of direct sunlight.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 ENGINEERING CONTROLS

Use in an enclosed process area is recommended. Not applicable. Use in a well-ventilated area.

# **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

## 8.2.1 Eye/Face Protection

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## MATERIAL SAFETY DATA SHEET 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY BASE 01/09/13

Avoid eye contact.

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

•

### 8.2.2 Skin Protection

Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

# 8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

### 8.2.4 Prevention of Swallowing

Not applicable. Do not ingest. Wash hands after handling and before eating.

## 8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<b>Authority</b>	<b>Type</b>	<u>Limit</u>	<b>Additional Information</b>
CRISTOBALITE	ACGIH	TWA, respirable	0.025 mg/m3	
CDICTODALITE	OGILA	fraction	0.05 / 2	
CRISTOBALITE	OSHA	TWA concentration, respirable	0.05 mg/m3	
CRISTOBALITE	OSHA	TWA concentration,	0.15  mg/m3	
		as total dust		
SILANE TREATED SILICA	CMRG	CEIL	5 mg/m3	
QUARTZ SILICA	ACGIH	TWA, respirable	0.025 mg/m3	
		fraction		
QUARTZ SILICA	OSHA	TWA concentration,	0.1  mg/m3	
		respirable		
QUARTZ SILICA	OSHA	TWA concentration,	0.3  mg/m3	
		as total dust		
SILICA, AMORPHOUS	OSHA	TWA concentration	0.8  mg/m3	
SILICA, AMORPHOUS	OSHA	TWA	20 millions of	
			particles/cu. ft.	
TRIDYMITE	OSHA	TWA concentration,	0.05  mg/m3	
		respirable		
TRIDYMITE	OSHA	TWA concentration,	0.15 mg/m3	
		as total dust	_	

# SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Specific Physical Form: Paste

Odor, Color, Grade: smell of mint white colored paste

General Physical Form: Solid

Autoignition temperatureNo Data AvailableFlash PointNo flash pointFlammable Limits(LEL)Not ApplicableFlammable Limits(UEL)Not ApplicableBoiling PointNot Applicable

## MATERIAL SAFETY DATA SHEET 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY BASE 01/09/13

**Density** 1.3 g/cm3 - 1.5 g/cm3 **Vapor Density** No Data Available

Vapor Pressure No Data Available

Specific Gravity 1.3 - 1.5 [Ref Std: WATER=1]

pH No Data Available
Melting point Not Applicable

**Solubility in Water** Negligible

Evaporation rateNo Data AvailableVolatile Organic CompoundsNot ApplicableKow - Oct/Water partition coefNot ApplicablePercent volatileNot ApplicableVOC Less H2O & Exempt SolventsNot ApplicableViscosityNo Data Available

# **SECTION 10: STABILITY AND REACTIVITY**

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

Heat

10.2 Materials to avoid

None known

Hazardous Polymerization: Hazardous polymerization will not occur.

# **Hazardous Decomposition or By-Products**

SubstanceConditionFormaldehydeDuring CombustionCarbon monoxideDuring CombustionCarbon dioxideDuring CombustionIrritant Vapors or GasesDuring Combustion

# **SECTION 11: TOXICOLOGICAL INFORMATION**

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

# **SECTION 12: ECOLOGICAL INFORMATION**

# ECOTOXICOLOGICAL INFORMATION

Not determined.

# CHEMICAL FATE INFORMATION

### MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY BASE 01/09/13

Not determined.

# **SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Dispose of waste product in a sanitary landfill. As a disposal alternative, incinerate in an industrial or commercial facility.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

# **SECTION 14:TRANSPORT INFORMATION**

LE-F100-1307-2

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

# **SECTION 15: REGULATORY INFORMATION**

### 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

## STATE REGULATIONS

Contact 3M for more information.

# **CHEMICAL INVENTORIES**

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. 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.

## INTERNATIONAL REGULATIONS

Contact 3M for more information.

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

# **SECTION 16: OTHER INFORMATION**

### **NFPA Hazard Classification**

Health: 2 Flammability: 1 Reactivity: 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.

### MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY BASE 01/09/13

### **Revision Changes:**

Section 7: Handling information was modified.

Section 8: Engineering controls information was modified.

Section 8: Skin protection phrase was modified.

Section 8: Prevention of swallowing information was modified.

Section 2: Ingredient table was modified.

Section 8: Hand protection information was modified.

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## MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY CATALYST 01/03/13



# **Material Safety Data Sheet**

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# **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY CATALYST

**MANUFACTURER:** 3M

**DIVISION:** 3M ESPE Dental Products

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

### EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 01/03/13
Supercedes Date: Initial Issue

**Document Group:** 31-4841-8

**Product Use:** 

Intended Use: Dental Product

Limitations on Use: For us only by dental professionals

Specific Use: Impression Material

# **SECTION 2: INGREDIENTS**

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
VINYL-POLYDIMETHYLSILOXANE	68083-19-2	30 - 40
CRISTOBALITE	14464-46-1	30 40
FUSED SILICA	60676-86-0	10 - 20
SILANE TREATED SILICA	67762-90-7	1 - 10
POLY(DIMETHYLSILOXANE)	63148-62-9	1 - 10
TRIDYMITE	15468-32-3	1 - 10
QUARTZ SILICA	14808-60-7	< 0.3

# **SECTION 3: HAZARDS IDENTIFICATION**

# 3.1 EMERGENCY OVERVIEW

Specific Physical Form: Paste

Odor, Color, Grade: slight characteristic odor, blue colored paste

General Physical Form: Solid

Immediate health, physical, and environmental hazards: This document has been prepared in accordance with the U.S. OSHA

### MATERIAL SAFETY DATA SHEET 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY CATALYST 01/03/13

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.

## 3.2 POTENTIAL HEALTH EFFECTS

### **Eve Contact:**

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

### **Skin Contact:**

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

### Inhalation:

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

### **Ingestion:**

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

### **Target Organ Effects:**

This product contains Cristobalite (CASRN 14464-46-1). Cancer of the lungs and silicosis has been associated with cristobalite. No exposure to cristobalite is anticipated during normal intended handling of the paste or cured material and therefore, the health effects associated with cristobalite are not expected during the foreseeable use of this product.

This product contains quartz silica. Quartz silica is a form of crystalline silica. Occupational exposure to inhaled crystalline silica has been associated with silicosis and lung cancer. No exposure to crystalline silica is expected during the normal handling and use of this product.

# **SECTION 4: FIRST AID MEASURES**

## 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention. **Skin Contact:** Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

**Inhalation:** No need for first aid is anticipated.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

# **SECTION 5: FIRE FIGHTING MEASURES**

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperatureNo Data AvailableFlash PointNo flash pointFlammable Limits(LEL)Not ApplicableFlammable Limits(UEL)Not Applicable

# 5.2 EXTINGUISHING MEDIA

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g., water, foam).

# 5.3 PROTECTION OF FIRE FIGHTERS

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### MATERIAL SAFETY DATA SHEET 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY CATALYST 01/03/13

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

## 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air.

### 6.2. Environmental precautions

Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### Clean-up methods

Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. 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 MSDS.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

# **SECTION 7: HANDLING AND STORAGE**

## 7.1 HANDLING

Avoid eye contact. Avoid prolonged or repeated skin contact. Do not ingest. Wash hands after handling and before eating. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment.

## 7.2 STORAGE

Store away from heat. Store out of direct sunlight.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Not applicable. Use in a well-ventilated area.

## **8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

## 8.2.1 Eye/Face Protection

Avoid eye contact.

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

8.2.2 Skin Protection

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## MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY CATALYST 01/03/13

Avoid prolonged or repeated skin contact. Gloves not normally required.

### **8.2.3 Respiratory Protection**

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

## 8.2.4 Prevention of Swallowing

Do not ingest. Wash hands after handling and before eating.

### 8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<b>Authority</b>	<b>Type</b>	<u>Limit</u>	Additional Information
CRISTOBALITE	ACGIH	TWA, respirable	0.025 mg/m3	
		fraction		
CRISTOBALITE	OSHA	TWA concentration,	0.05  mg/m3	
		respirable		
CRISTOBALITE	OSHA	TWA concentration,	0.15  mg/m3	
		as total dust		
SILANE TREATED SILICA	CMRG	CEIL	5 mg/m3	
QUARTZ SILICA	ACGIH	TWA, respirable	0.025  mg/m3	
		fraction		
QUARTZ SILICA	OSHA	TWA concentration,	0.1  mg/m3	
		respirable		
QUARTZ SILICA	OSHA	TWA concentration,	0.3 mg/m3	
		as total dust		
SILICA, AMORPHOUS	OSHA	TWA concentration	0.8  mg/m3	
SILICA, AMORPHOUS	OSHA	TWA	20 millions of	
			particles/cu. ft.	
TRIDYMITE	OSHA	TWA concentration,	0.05  mg/m3	
		respirable		
TRIDYMITE	OSHA	TWA concentration,	0.15  mg/m3	
		as total dust		

## SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Specific Physical Form: Paste

Odor, Color, Grade: slight characteristic odor, blue colored paste

General Physical Form: Solid

Autoignition temperatureNo Data AvailableFlash PointNo flash pointFlammable Limits(LEL)Not ApplicableFlammable Limits(UEL)Not ApplicableBoiling PointNot ApplicableDensity1.4 g/cm3 - 1.6 g/cm3Vapor DensityNo Data Available

Vapor Pressure No Data Available

**Specific Gravity** 1.4 - 1.6 [*Ref Std:* WATER=1]

## MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY CATALYST 01/03/13

**pH**Melting point
No Data Available
Not Applicable

Solubility in Water Negligible

Evaporation rateNo Data AvailableVolatile Organic CompoundsNot ApplicableKow - Oct/Water partition coefNot ApplicablePercent volatileNot ApplicableVOC Less H2O & Exempt SolventsNot ApplicableViscosityNo Data Available

# **SECTION 10: STABILITY AND REACTIVITY**

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

Heat

10.2 Materials to avoid

None known

Hazardous Polymerization: Hazardous polymerization will not occur.

# **Hazardous Decomposition or By-Products**

SubstanceConditionFormaldehydeDuring CombustionCarbon monoxideDuring CombustionCarbon dioxideDuring CombustionIrritant Vapors or GasesDuring Combustion

# **SECTION 11: TOXICOLOGICAL INFORMATION**

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

# **SECTION 12: ECOLOGICAL INFORMATION**

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

# **SECTION 13: DISPOSAL CONSIDERATIONS**

### MATERIAL SAFETY DATA SHEET 3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY CATALYST 01/03/13

**Waste Disposal Method:** Dispose of waste product in a sanitary landfill. As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator in the presence of a combustible material.

As a disposal alternative, incinerate in an industrial or commercial facility.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

# **SECTION 14:TRANSPORT INFORMATION**

LE-F100-1307-3

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

# **SECTION 15: REGULATORY INFORMATION**

## 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

### STATE REGULATIONS

Contact 3M for more information.

# **CHEMICAL INVENTORIES**

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. 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.

### INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS 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 Reactivity: 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.

No revision information is available.

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M

# MATERIAL SAFETY DATA SHEET 3MTM ESPETM IMPRINTTM 4 HEAVY CATALYST 01/03/13

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 Document Group:
 31-6693-1
 Version Number:
 1.02

 Issue Date:
 04/15/15
 Supercedes Date:
 05/20/14

**Product identifier** 

3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY REFILL

**ID** Number(s):

70-2011-4147-3

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:

31-4841-8, 31-4838-4

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3M <sup>TM</sup> ESPE <sup>TM</sup> IMPRINT <sup>TM</sup> 4 HEAVY REFILL 04/15/15
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# **Safety Data Sheet**

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 31-4841-8
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 3.00

 Issue Date:
 02/25/16
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 10/09/14

# **SECTION 1: Identification**

### 1.1. Product identifier

3MTM ESPETM IMPRINTTM 4 HEAVY CATALYST

### **Product Identification Numbers**

LE-F100-1307-3

# 1.2. Recommended use and restrictions on use

## Recommended use

Dental Product, Impression Material

# Restrictions on use

For us 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.

Page 1 of 10

### **Pictograms**

Not applicable.

### 2.3. Hazards not otherwise classified

None.

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

Ingredient	C.A.S. No.	% by Wt
CRISTOBALITE	14464-46-1	30 - 40 Trade Secret *
VINYL-POLYDIMETHYLSILOXANE	68083-19-2	30 - 40 Trade Secret *
FUSED SILICA	60676-86-0	10 - 20 Trade Secret *
POLY(DIMETHYLSILOXANE)	63148-62-9	1 - 10 Trade Secret *
SILANE TREATED SILICA	67762-90-7	1 - 10 Trade Secret *
TRIDYMITE	15468-32-3	1 - 10 Trade Secret *
QUARTZ SILICA	14808-60-7	< 0.3 Trade Secret *

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

# **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

### **Inhalation:**

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

## **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 monoxideDuring CombustionCarbon dioxideDuring CombustionIrritant Vapors or GasesDuring 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	<b>Additional Comments</b>
CRISTOBALITE	14464-46-1	ACGIH	TWA(respirable	A2: Suspected human
			fraction):0.025 mg/m3	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	A2: Suspected human
			fraction):0.025 mg/m3	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	

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			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.
SILANE TREATED 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**

Respiratory protection is not required.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

**General Physical Form:**Specific Physical Form:

Solid
Paste

Odor, Color, Grade: slight characteristic odor, blue colored paste

Odor thresholdNo Data AvailablepHNo Data AvailableMelting pointNot ApplicableBoiling PointNot Applicable

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

Evaporation rate

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapor Pressure

Vapor Density

No Data Available

1.4 g/cm3 - 1.6 g/cm3

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#### 3MTM ESPETM IMPRINTTM 4 HEAVY CATALYST 02/25/16

1.4 - 1.6 [*Ref Std:* WATER=1] **Specific Gravity** 

Solubility in Water Negligible No Data Available Solubility- non-water Partition coefficient: n-octanol/ water Not Applicable **Autoignition temperature** No Data Available No Data Available **Decomposition temperature** Viscosity No Data Available **Volatile Organic Compounds** Not Applicable Not Applicable

Percent volatile **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

**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

**Page** 5 **of** 10

## 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, CRYS AIRRESP	14464-46-1	Known human carcinogen	National Toxicology Program Carcinogens
SILICA, CRYS AIRRESP	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
SILICA, CRYS AIRRESP	15468-32-3	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
SILICA, CRYS AIRRESP	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**

Acute Toxicity	T	1 ~ .	T == -
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
FUSED SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
FUSED SILICA	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
FUSED SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg
SILANE TREATED SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
SILANE TREATED SILICA	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
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
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-POLYDIMETHYLSILOXANE	Rabbit	No significant irritation
CRISTOBALITE	Professio	No significant irritation
	nal	
	judgeme	
	nt	
FUSED SILICA	Rabbit	No significant irritation
SILANE TREATED SILICA	Rabbit	No significant irritation
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation
TRIDYMITE	Professio	No significant irritation
	nal	
	judgeme	
	nt	
QUARTZ SILICA	Professio	No significant irritation
	nal	-
	judgeme	
	nt	

**Serious Eye Damage/Irritation** 

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

# **Skin Sensitization**

Name	Species	Value
FUSED SILICA	Human	Not sensitizing
	and	
	animal	
SILANE TREATED SILICA	Human	Not sensitizing
	and	
	animal	

## **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
CRISTOBALITE	In vivo	sufficient for classification  Some positive data exist, but the data are not sufficient for classification
FUSED SILICA	In Vitro	Not mutagenic
SILANE TREATED 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	Carcinogenic
		and	

		animal	
FUSED SILICA	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification
SILANE TREATED 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 organogenesi s
SILANE TREATED SILICA	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

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
SILANE TREATED 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

Page 8 of 10

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

**Page** 9 **of** 10

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:31-4841-8Version Number:3.00Issue Date:02/25/16Supercedes Date:10/09/14

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3M USA SDSs are available at www.3M.com

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# **Safety Data Sheet**

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Document Group:31-4838-4Version Number:3.00Issue Date:02/25/16Supercedes Date:12/16/14

# **SECTION 1: Identification**

### 1.1. Product identifier

3M<sup>TM</sup> ESPE<sup>TM</sup> IMPRINT<sup>TM</sup> 4 HEAVY BASE

### **Product Identification Numbers**

LE-F100-1307-2

# 1.2. Recommended use and restrictions on use

## Recommended use

Dental Product, Impression Material

# Restrictions on use

For us 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

Skin Sensitizer: Category 1.

## 2.2. Label elements

Signal word

Warning

# **Symbols**

Exclamation mark |

Page 1 of 11

## **Pictograms**



### **Hazard Statements**

May cause an allergic skin reaction.

### **Precautionary Statements**

### **Prevention:**

Wear protective gloves.

Contaminated work clothing must not be allowed out of the workplace.

## **Response:**

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

### **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
CRISTOBALITE	14464-46-1	35 - 45 Trade Secret *
VINYL-POLYDIMETHYL SILOXANE	68083-19-2	20 - 30 Trade Secret *
DIMETHYL METHYL HYDROGEN SILICONE	68037-59-2	1 - 10 Trade Secret *
FLUID		
FUSED SILICA	60676-86-0	1 - 10 Trade Secret *
SILANE TREATED SILICA	67762-90-7	1 - 10 Trade Secret *
ALLYLTRIMETHYLSILANE	762-72-1	< 5 Trade Secret *
POLY(DIMETHYLSILOXANE)	63148-62-9	< 5 Trade Secret *
POLYETHYLENE GLYCOL, SILOXANE	27306-78-1	< 5.0 Trade Secret *
TERMINATED		
TRIDYMITE	15468-32-3	< 5 Trade Secret *
QUARTZ SILICA	14808-60-7	< 1 Trade Secret *
CORNMINT OIL	68917-18-0	< 0.5 Trade Secret *

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

# **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

# Inhalation:

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

### **Skin Contact:**

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

### **Eve 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment.

## 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg.

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chlorine, chromic acid etc.) Do not get in eyes. 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 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	<b>Additional Comments</b>
CRISTOBALITE	14464-46-1	ACGIH	TWA(respirable	A2: Suspected human
			fraction):0.025 mg/m3	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	A2: Suspected human
			fraction):0.025 mg/m3	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.	
SILANE TREATED 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)

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# 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 colored paste
Odor threshold No Data Available

pН No Data Available **Melting point** Not Applicable **Boiling Point** Not Applicable **Flash Point** No flash point **Evaporation rate** No Data Available Flammability (solid, gas) Not Classified Flammable Limits(LEL) Not Applicable Flammable Limits(UEL) Not Applicable Vapor Pressure No Data Available **Vapor Density** No Data Available 1.3 g/cm3 - 1.5 g/cm3 **Density** 

Specific Gravity 1.3 - 1.5 [Ref Std: WATER=1]

Solubility in WaterNegligibleSolubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNot ApplicableAutoignition temperatureNo Data AvailableDecomposition temperatureNo Data AvailableViscosityNo Data AvailableVolatile Organic CompoundsNot Applicable

Volatile Organic Compounds

Percent volatile

VOC Less H2O & Exempt Solvents

Not Applicable

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

Strong acids Strong bases Strong oxidizing agents Amines

## 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

# 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.

product. Once properly mixed and/or cured, the product is safe for its intended use.

### **Skin Contact:**

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

### **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.

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

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
CRISTOBALITE	Dermal		LD50 estimated to be > 5,000 mg/kg
CRISTOBALITE	Ingestion		LD50 estimated to be > 5,000 mg/kg
VINYL-POLYDIMETHYL SILOXANE	Dermal	Rabbit	LD50 > 15,440 mg/kg
VINYL-POLYDIMETHYL SILOXANE	Ingestion	Rat	LD50 > 15,440 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-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
SILANE TREATED SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg
FUSED SILICA	Dermal	Rabbit	LD50 > 5,000 mg/kg
FUSED SILICA	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
FUSED SILICA	Ingestion	Rat	LD50 > 5,110 mg/kg
ALLYLTRIMETHYLSILANE	Dermal	Professio	LD50 estimated to be 2,000 - 5,000 mg/kg
		nal	
		judgeme	
		nt	
ALLYLTRIMETHYLSILANE	Ingestion	similar	LD50 estimated to be 2,000 - 5,000 mg/kg
		compoun	
DOLVETHYLENE CLYCOL CHOVANE TERMINATED	D 1	ds	LD50 . 2 000 //
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	Dermal	Rabbit	LD50 > 2,000 mg/kg
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	Inhalation-	Rat	LC50 2 mg/l
	Dust/Mist (4 hours)		
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	Ingestion	Rat	LD50 > 2,000 mg/kg
POLY(DIMETHYLSILOXANE)	Dermal	Rabbit	LD50 > 2,000 mg/kg LD50 > 19,400 mg/kg
POLY(DIMETHYLSILOXANE)	Ingestion	Rat	LD50 > 17,000 mg/kg
TRIDYMITE	Dermal	Nat	LD50 > 17,000 mg/kg  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
CORNMINT OIL	Dermal	Rabbit	LD50 > 5,000 mg/kg
CORNMINT OIL	Ingestion	Rat	LD50 1,240 mg/kg
	-1180011011		

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

Skin Corrosion/irritation		
Name	Species	Value
	_	
CRISTOBALITE	Professio	No significant irritation
	nal	
	judgeme	
	nt	
VINYL-POLYDIMETHYL SILOXANE	Rabbit	No significant irritation

SILANE TREATED SILICA	Rabbit	No significant irritation
FUSED SILICA	Rabbit	No significant irritation
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	Rabbit	No significant irritation
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation
TRIDYMITE	Professio	No significant irritation
	nal	
	judgeme	
	nt	
QUARTZ SILICA	Professio	No significant irritation
	nal	
	judgeme	
	nt	
CORNMINT OIL	Rabbit	Mild irritant

# **Serious Eye Damage/Irritation**

Name	Species	Value		
VINYL-POLYDIMETHYL SILOXANE	Rabbit	Mild irritant		
SILANE TREATED SILICA	Rabbit	No significant irritation		
FUSED SILICA	Rabbit	No significant irritation		
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	Rabbit	Severe irritant		
POLY(DIMETHYLSILOXANE)	Rabbit	No significant irritation		
CORNMINT OIL	In vitro	Severe irritant		
	data			

# **Skin Sensitization**

Name	Species	Value
SILANE TREATED SILICA	Human	Not sensitizing
	and	
	animal	
FUSED SILICA	Human	Not sensitizing
	and	
	animal	
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	Guinea	Not sensitizing
	pig	
CORNMINT OIL	Guinea	Sensitizing
	pig	

# **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		
FUSED SILICA	In Vitro	Not mutagenic		
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	In Vitro	Not mutagenic		
POLYETHYLENE GLYCOL, SILOXANE TERMINATED	In vivo	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	Carcinogenic

		and	
		animal	
SILANE TREATED SILICA	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification
FUSED SILICA	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification
TRIDYMITE	Inhalation	Human	Carcinogenic
		and	
		animal	
QUARTZ SILICA	Inhalation	Human	Carcinogenic
		and	
		animal	

# Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
SILANE TREATED SILICA	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE TREATED SILICA	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s
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 organogenesi s
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	Human	NOAEL Not	occupational
			prolonged or repeated exposure		available	exposure
SILANE TREATED	Inhalation	respiratory system	All data are negative	Human	NOAEL Not	occupational
SILICA		silicosis			available	exposure
FUSED SILICA	Inhalation	respiratory system	All data are negative	Human	NOAEL Not	occupational
		silicosis			available	exposure
TRIDYMITE	Inhalation	silicosis	Causes damage to organs through	Human	NOAEL Not	occupational
			prolonged or repeated exposure		available	exposure
QUARTZ SILICA	Inhalation	silicosis	Causes damage to organs through	Human	NOAEL Not	occupational
			prolonged or repeated exposure		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.

Dispose of completely cured (or polymerized) material in a permitted industrial waste 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

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: 2 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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