# **SAFETY DATA SHEETS**

# This SDS packet was issued with item:

075801113

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

075800768 075800867 075800875 075800883 075800891 075800909 075800917 075801055 075801071 075801089 075801097 075801105 075801121 273013835 273022591



## Material Safety Data Sheet

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PRODUCT NAME: 3304/3305 3MTM ESPETM KETACTM NANO LIGHT-CURE GLASS IONOMER

**RESTORATIVE KIT** 

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: 02/23/11

Supercedes Date: 02/11/11

Document Group: 20-3654-9

## ID Number(s):

LE-F100-0193-1, 70-2010-5072-4, 70-2010-5073-2, 70-2010-5074-0, 70-2010-5075-7, 70-2010-5077-3, 70-2010-5712-5, 70-2010-5713-3, 70-2010-5714-1, 70-2010-5715-8, 70-2010-5716-6, 70-2010-5718-2, 70-2010-8549-8

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:

22-4947-2, 22-4955-5

Revision Changes:

Kit: ID Number(s) was modified.

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<b>MATE</b>	RIAL	SAFETY	DATA	SHEET	3304/3305	3MTN	ESPETA	4 KETA	CTM NA	ANO I	JGHT-	CURE	<b>GLASS</b>	IONOMER	RESTO	RATIVE
KIT	02/23/1	11														

particular purpose and suitable for user's method of use or application.

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 Document Group:
 22-8081-6
 Version Number:
 1.02

 Issue Date:
 04/15/15
 Supercedes Date:
 10/26/09

#### **Product identifier**

3304/ 3305 3MTM ESPETM KETACTM NANO LIGHT-CURE GLASS IONOMER RESTORATIVE INTRO/TRIAL KIT

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

70-2010-5070-8, 70-2010-5071-6, 70-2010-5711-7

#### Recommended use

Dental product, Dental restorative.

### 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:

22-4955-5, 22-4947-2, 20-3651-5

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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.

## 3304/3305 3MTM ESPETM KETACTM NANO LIGHT-CURE GLASS IONOMER RESTORATIVE INTRO/TRIAL KIT 04/15/15

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## **Safety Data Sheet**

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 Document Group:
 20-3651-5
 Version Number:
 6.01

 Issue Date:
 01/18/18
 Supercedes Date:
 02/25/16

## **SECTION 1: Identification**

#### 1.1. Product identifier

3304P 3MTM ESPETM KETACTM NANO PRIMER

#### **Product Identification Numbers**

LE-F100-0193-4. LE-F100-0743-8. 70-2010-5080-7

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

### Recommended use

Dental product, Restorative.

## 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

Serious Eye Damage/Irritation: Category 2B.

Skin Sensitizer: Category 1.

### 2.2. Label elements

## Signal word

Warning

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#### **Symbols**

Exclamation mark |

#### **Pictograms**



#### **Hazard Statements**

Causes eye irritation.

May cause an allergic skin reaction.

## **Precautionary Statements**

#### **Prevention:**

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Wash thoroughly after handling.

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

#### **Response:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention. 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.

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

Ingredient	C.A.S. No.	% by Wt
WATER	7732-18-5	40 - 50 Trade Secret *
2-HYDROXYETHYL METHACRYLATE (HEMA)	868-77-9	35 - 45 Trade Secret *
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	25948-33-8	10 - 15 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.

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#### **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

Material will not burn.

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

None inherent in this product.

## **Hazardous Decomposition or By-Products**

<u>Substance</u> Carbon monoxide Carbon dioxide

#### Condition

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

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

## 6.2. Environmental precautions

Avoid release to the environment.

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

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. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. 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

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not

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eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

## 7.2. Conditions for safe storage including any incompatibilities

Store away from heat.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

#### 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:LiquidSpecific Physical Form:LiquidOdor, Color, Grade:Clear, yellowOdor thresholdNo Data Available

**pH** 3

Melting point

Not Applicable

Poiling Point

Not Applicable

> 219 °F

Flash Point 219 °F [Test Method: Closed Cup]

Evaporation rateNo Data AvailableFlammability (solid, gas)Not ApplicableFlammable Limits(LEL)No Data AvailableFlammable Limits(UEL)No Data AvailableVapor PressureNo Data AvailableVapor DensityNo Data Available

**Density** 1.1 g/ml

Specific Gravity 1.1 [Ref Std: WATER=1]

**Solubility in Water** Complete

Solubility- non-water No Data Available

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## 3304P 3MTM ESPETM KETACTM NANO PRIMER

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Partition coefficient: n-octanol/ waterNot ApplicableAutoignition temperatureNo Data AvailableDecomposition temperatureNo Data AvailableViscosityNo Data Available

## **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 Light

## 10.5. Incompatible materials

None known.

### 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

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

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#### **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:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### Ingestion:

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

### **Toxicological Data**

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

**Acute Toxicity** 

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
2-HYDROXYETHYL METHACRYLATE (HEMA)	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Rat	LD50 5,564 mg/kg
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Ingestion	Rat	LD50 > 5,000  mg/kg
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Dermal	similar	LD50 estimated to be > 5,000 mg/kg
		health	
		hazards	

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
2-HYDROXYETHYL METHACRYLATE (HEMA)	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
2-HYDROXYETHYL METHACRYLATE (HEMA)	Rabbit	Moderate irritant

#### **Skin Sensitization**

Name	Species	Value
2-HYDROXYETHYL METHACRYLATE (HEMA)	Human	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

germ cen muagement		
Name	Route	Value
2-HYDROXYETHYL METHACRYLATE (HEMA)	In vivo	Not mutagenic
2-HYDROXYETHYL METHACRYLATE (HEMA)		Some positive data exist, but the data are not sufficient for classification

#### Carcinogenicity

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

## Reproductive Toxicity

## Reproductive and/or Developmental Effects

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Name	Route	Value	Species	Test Result	Exposure Duration
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

## Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
COPOLYMER OF ACRYLIC AND	Ingestion	nervous system	Not classified	Rat	NOAEL 5,000 mg/kg	
ITACONIC ACIDS						

Specific Target Organ Toxicity - repeated exposure

1						
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Ingestion	endocrine system   hematopoietic system   liver	Not classified	Rat	NOAEL 200 mg/kg/day	28 days
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Ingestion	heart   bone, teeth, nails, and/or hair   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days

#### **Aspiration Hazard**

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

## **SECTION 12: Ecological information**

## **Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

#### **Chemical fate information**

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

## **SECTION 13: Disposal considerations**

## 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

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

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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**

Serious eye damage or eye irritation

#### 15.2. State Regulations

Contact 3M for more information.

#### 15.3. Chemical Inventories

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

Contact 3M for more information.

#### 15.4. International Regulations

Contact 3M for more information.

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

## **SECTION 16: Other information**

## NFPA Hazard Classification

Health: 2 Flammability: 0 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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 20-3651-5
 Version Number:
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 01/18/18
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 02/25/16

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 Document Group:
 22-4947-2
 Version Number:
 5.01

 Issue Date:
 12/29/17
 Supercedes Date:
 02/25/16

## **SECTION 1: Identification**

#### 1.1. Product identifier

3MTM ESPETM KETACTM NANO LIGHT-CURE GLASS IONOMER RESTORATIVE PASTE A

#### **Product Identification Numbers**

LE-F100-0308-8, LE-F100-0354-5, LE-F100-0744-9

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

### Recommended use

Dental product, Restorative

#### 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

Serious Eye Damage/Irritation: Category 2B.

Skin Sensitizer: Category 1B.

#### 2.2. Label elements

## Signal word

Warning

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#### **Symbols**

Exclamation mark |

## **Pictograms**



#### **Hazard Statements**

Causes eye irritation.

May cause an allergic skin reaction.

## **Precautionary Statements**

#### **Prevention:**

Wear protective gloves.

Wash thoroughly after handling.

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

#### **Response:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention. 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.

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

Ingredient	C.A.S. No.	% by Wt
SILANE TREATED GLASS	None	40 - 55 Trade Secret *
SILANE TREATED ZIRCONIA	None	20 - 30 Trade Secret *
POLYETHYLENE GLYCOL DIMETHACRYLATE	25852-47-5	5 - 15 Trade Secret *
(PEGDMA)		
SILANE TREATED SILICA	248596-91-0	5 - 15 Trade Secret *
2-HYDROXYETHYL METHACRYLATE (HEMA)	868-77-9	1 - 15 Trade Secret *
BISPHENOL A DIGLYCIDYL ETHER	1565-94-2	< 5 Trade Secret *
DIMETHACRYLATE (BISGMA)		
TRIETHYLENE GLYCOL DIMETHACRYLATE	109-16-0	< 1 Trade Secret *
(TEGDMA)		

<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:

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

#### **Skin Contact:**

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

#### **Eye Contact:**

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

#### If Swallowed:

Rinse mouth. 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 monoxid

Carbon monoxide Carbon dioxide

## **Condition**

**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

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

## 6.2. Environmental precautions

Avoid release to the environment.

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

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

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

**Page** 3 **of** 10

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Do not get in eyes, on skin, or on clothing. 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.

#### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

### 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:**Specific Physical Form:
Paste

Odor, Color, Grade: Resin odor, Opaque, tooth-colored paste of various shades

Odor threshold No Data Available pН Not Applicable **Melting point** No Data Available **Boiling Point** Not Applicable **Flash Point** No flash point **Evaporation rate** Not Applicable Flammability (solid, gas) Not Classified Flammable Limits(LEL) Not Applicable Not Applicable Flammable Limits(UEL)

Vapor Pressure
Not Applicable
Vapor Density
Not Applicable
Not Applicable
2.11 g/cm3

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#### 3MTM ESPETM KETACTM NANO LIGHT-CURE GLASS IONOMER RESTORATIVE PASTE A

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**Specific Gravity** 2.11 [*Ref Std*:WATER=1]

Solubility in Water Negligible

Solubility- non-water No Data Available Partition coefficient: n-octanol/ water Not Applicable **Autoignition temperature** Not Applicable **Decomposition temperature** No Data Available Viscosity No Data Available Molecular weight No Data Available

## **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

Light

#### 10.5. Incompatible materials

None known.

## 10.6. Hazardous decomposition products

Substance

None known.

**Condition** 

Refer to section 5.2 for hazardous decomposition products during combustion.

## **SECTION 11: Toxicological information**

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

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

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

### 11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

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

10

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

## **Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

## **Ingestion:**

May be harmful if swallowed.

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

## **Toxicological Data**

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

## **Acute Toxicity**

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
SILANE TREATED GLASS	Dermal		LD50 estimated to be > 5,000 mg/kg
SILANE TREATED GLASS	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
SILANE TREATED ZIRCONIA	Dermal		LD50 estimated to be > 5,000 mg/kg
SILANE TREATED ZIRCONIA	Ingestion	Mouse	LD50 > 8,800 mg/kg
SILANE TREATED ZIRCONIA	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 4.3 mg/l
2-HYDROXYETHYL METHACRYLATE (HEMA)	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Rat	LD50 5,564 mg/kg
SILANE TREATED SILICA	Dermal		LD50 estimated to be > 5,000 mg/kg
SILANE TREATED SILICA	Ingestion		LD50 estimated to be > 5,000 mg/kg
POLYETHYLENE GLYCOL DIMETHACRYLATE (PEGDMA)	Dermal		LD50 estimated to be > 5,000 mg/kg
POLYETHYLENE GLYCOL DIMETHACRYLATE (PEGDMA)	Ingestion	Rat	LD50 > 5,000 mg/kg
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Dermal	Professio nal judgeme nt	LD50 estimated to be > 5,000 mg/kg
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Rat	LD50 10,837 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Skill Corrosion/Irritation		
Name	Species	Value
SILANE TREATED GLASS	Professio nal judgeme nt	No significant irritation
SILANE TREATED ZIRCONIA	Rabbit	No significant irritation
2-HYDROXYETHYL METHACRYLATE (HEMA)	Rabbit	Minimal irritation
SILANE TREATED SILICA	Professio	No significant irritation

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## 3MTM ESPETM KETACTM NANO LIGHT-CURE GLASS IONOMER RESTORATIVE PASTE A

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	nal judgeme nt	
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Not	Minimal irritation
	available	
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Guinea	Mild irritant
	pig	

Serious Eye Damage/Irritation

Name	Species	Value
SILANE TREATED GLASS	Professio nal judgeme nt	No significant irritation
SILANE TREATED ZIRCONIA	Rabbit	Mild irritant
2-HYDROXYETHYL METHACRYLATE (HEMA)	Rabbit	Moderate irritant
SILANE TREATED SILICA	Professio nal judgeme nt	No significant irritation
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Not available	Moderate irritant
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Professio nal judgeme nt	Moderate irritant

#### **Skin Sensitization**

SKIII SCHSICIZATION		
Name	Species	Value
2-HYDROXYETHYL METHACRYLATE (HEMA)	Human	Sensitizing
	and	
	animal	
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Guinea	Sensitizing
	pig	
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Human	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** 

Oct in Cent Mutagementy							
Name	Route	Value					
2-HYDROXYETHYL METHACRYLATE (HEMA)	In vivo	Not mutagenic					
2-HYDROXYETHYL METHACRYLATE (HEMA)	In Vitro	Some positive data exist, but the data are not sufficient for classification					
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	In Vitro	Some positive data exist, but the data are not sufficient for classification					
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	In Vitro	Some positive data exist, but the data are not sufficient for classification					

Carcinogenicity

Name	Route	Species	Value
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Dermal	Mouse	Not carcinogenic

## **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
2-HYDROXYETHYL METHACRYLATE	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000	premating &

(HEMA)				mg/kg/day	during gestation
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion	Not classified for female reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion	Not classified for male reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
BISPHENOL A DIGLYCIDYL ETHER DIMETHACRYLATE (BISGMA)	Ingestion	Not classified for development	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Not classified for female reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Not classified for male reproduction	Mouse	NOAEL 1 mg/kg/day	1 generation
TRIETHYLENE GLYCOL DIMETHACRYLATE (TEGDMA)	Ingestion	Not classified for development	Mouse	NOAEL 1 mg/kg/day	1 generation

### 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
BISPHENOL A	Ingestion	endocrine system	Not classified	Mouse	NOAEL 0.8	premating &
DIGLYCIDYL ETHER		liver   nervous			mg/kg/day	during
DIMETHACRYLATE		system   kidney				gestation
(BISGMA)		and/or bladder				
TRIETHYLENE	Dermal	kidney and/or	Not classified	Mouse	NOAEL 833	78 weeks
GLYCOL		bladder   blood			mg/kg/day	
DIMETHACRYLATE		·				
(TEGDMA)						

## **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

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Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

EPA Hazardous Waste Number (RCRA): Not regulated

## **SECTION 14: Transport Information**

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

## **SECTION 15: Regulatory information**

### 15.1. US Federal Regulations

Contact 3M for more information.

#### **EPCRA 311/312 Hazard Classifications:**

Physical Hazards	
Not applicable	

#### **Health Hazards**

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

#### **Additional TSCA Information**

Components	CAS No	Consent Order/SNUR
SILANE TREATED SILICA	248596-91-0	Allowed use(s): Coating additive.

#### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

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

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

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

## **SECTION 16: Other information**

## NFPA Hazard Classification

Health: 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

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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:
 22-4947-2
 Version Number:
 5.01

 Issue Date:
 12/29/17
 Supercedes Date:
 02/25/16

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## Safety Data Sheet

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Document Group:22-4955-5Version Number:4.01Issue Date:12/28/17Supercedes Date:02/25/16

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M™ ESPE™ KETAC™ NANO LIGHT-CURE GLASS IONOMER RESTORATIVE PASTE B

#### **Product Identification Numbers**

LE-F100-0309-0, LE-F100-0354-6, LE-F100-0745-1

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

### Recommended use

Dental product, Restorative

#### Restrictions on use

For use only by dental products.

## 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

Acute Toxicity (oral): Category 4. Skin Sensitizer: Category 1.

#### 2.2. Label elements

## Signal word

Warning

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#### **Symbols**

Exclamation mark |

#### **Pictograms**



#### **Hazard Statements**

Harmful if swallowed.

May cause an allergic skin reaction.

## **Precautionary Statements**

#### **Prevention:**

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

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.

Rinse mouth.

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

#### Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

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

Ingredient	C.A.S. No.	% by Wt
SILANE TREATED CERAMIC	444758-98-9	40 - 60 Trade Secret *
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	25948-33-8	20 - 30 Trade Secret *
WATER	7732-18-5	10 - 20 Trade Secret *
2-HYDROXYETHYL METHACRYLATE (HEMA)	868-77-9	1 - 10 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.

#### **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

Material will not burn.

#### 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** 

## 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

Evacuate area. 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

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. 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.

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### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

### 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:**Specific Physical Form:
Paste

Odor, Color, Grade: Resin odor, Opaque, yellow

**Odor threshold** No Data Available pН Not Applicable **Melting point** No Data Available **Boiling Point** Not Applicable **Flash Point** Not Applicable Not Applicable **Evaporation rate** Not Classified Flammability (solid, gas) Flammable Limits(LEL) Not Applicable

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapor Pressure

Vapor Density

Not Applicable
Not Applicable
Not Applicable
1.66 g/cm3

Specific Gravity 1.66 [Ref Std: WATER=1]

Solubility in WaterNegligibleSolubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNot ApplicableAutoignition temperatureNot ApplicableDecomposition temperatureNo Data Available

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#### 3MTM ESPETM KETACTM NANO LIGHT-CURE GLASS IONOMER RESTORATIVE PASTE B

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ViscosityNo Data AvailableMolecular weightNo Data Available

## **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

None known.

#### 10.5. Incompatible materials

None known.

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

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## **Eye Contact:**

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

#### **Ingestion:**

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

## **Toxicological Data**

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

**Acute Toxicity** 

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE300 - 2,000 mg/kg
SILANE TREATED CERAMIC	Dermal		LD50 estimated to be > 5,000 mg/kg
SILANE TREATED CERAMIC	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Ingestion	Rat	LD50 > 5,000 mg/kg
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
2-HYDROXYETHYL METHACRYLATE (HEMA)	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Rat	LD50 5,564 mg/kg

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
SILANE TREATED CERAMIC	similar compoun ds	No significant irritation
2-HYDROXYETHYL METHACRYLATE (HEMA)	Rabbit	Minimal irritation

**Serious Eye Damage/Irritation** 

Serious Lye Damage II Hatton							
Name	Species	Value					
SILANE TREATED CERAMIC	similar	Mild irritant					
	compoun						
	ds						
2-HYDROXYETHYL METHACRYLATE (HEMA)	Rabbit	Moderate irritant					

## **Skin Sensitization**

Name	Species	Value
SILANE TREATED CERAMIC	similar	Not classified
	compoun	
	ds	
2-HYDROXYETHYL METHACRYLATE (HEMA)	Human	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

Germ Cen Mutagementy		
Name	Route	Value
2-HYDROXYETHYL METHACRYLATE (HEMA)	In vivo	Not mutagenic
2-HYDROXYETHYL METHACRYLATE (HEMA)	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
SILANE TREATED CERAMIC	Inhalation	similar	Some positive data exist, but the data are not
		compoun	sufficient for classification
		ds	

## Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-HYDROXYETHYL METHACRYLATE (HEMA)	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

## Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
COPOLYMER OF ACRYLIC AND	Ingestion	nervous system	Not classified	Rat	NOAEL 5,000 mg/kg	
ITACONIC ACIDS					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
SILANE TREATED CERAMIC	Inhalation	pulmonary fibrosis	Not classified	similar compoun ds	NOAEL Not available	
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Ingestion	endocrine system   hematopoietic system   liver	Not classified	Rat	NOAEL 200 mg/kg/day	28 days
COPOLYMER OF ACRYLIC AND ITACONIC ACIDS	Ingestion	heart   bone, teeth, nails, and/or hair   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days

## **Aspiration Hazard**

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

# **SECTION 12: Ecological information**

## **Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

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#### Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

## **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

EPA Hazardous Waste Number (RCRA): Not regulated

## **SECTION 14: Transport Information**

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

## **SECTION 15: Regulatory information**

#### 15.1. US Federal Regulations

Contact 3M for more information.

## **EPCRA 311/312 Hazard Classifications:**

#### Physical Hazards

Not applicable

### Health Hazards

Acute toxicity

## 15.2. State Regulations

Contact 3M for more information.

#### 15.3. Chemical Inventories

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

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

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

## **SECTION 16: Other information**

### NFPA Hazard Classification

Health: 2 Flammability: 0 Instability: 0 Special Hazards: None

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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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