



## Safety Data Sheet

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### Product identifier

3M™ ESPE™ PROTEMP™ PLUS REFILLS

### ID Number(s):

41-8650-2957-7, 70-2011-3260-5, 70-2011-3263-9, 70-2011-3266-2, 70-2011-3423-9, 70-2011-3424-7, 70-2011-3760-4

### Recommended use

Dental Material, Dental Temporary Crown and Bridge Material

### Restrictions on use

For use only by dental professionals

### 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)

### 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:**

24-8557-1, 24-8564-7

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**Document Group:** 24-8564-7  
**Issue Date:** 08/10/17

**Version Number:** 6.00  
**Supersedes Date:** 02/25/16

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ PROTEMP™ PLUS BASE PASTE

#### Product Identification Numbers

LE-F100-0544-1, LE-F100-0714-9

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

##### Recommended use

Dental Material, Temporary crown and bridge material

##### Restrictions on use

For use only by dental professionals

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard identification

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

#### 2.1. Hazard classification

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

#### 2.2. Label elements

##### Signal word

Not applicable.

##### Symbols

Not applicable.

**Pictograms**

Not applicable.

**2.3. Hazards not otherwise classified****SECTION 3: Composition/information on ingredients**

| Ingredient                                                                                                                                                         | C.A.S. No.   | % by Wt                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------|
| DIMETHACRYLATE (BISEMA6)                                                                                                                                           | 41637-38-1   | 45 - 55 Trade Secret * |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | None         | 20 - 30 Trade Secret * |
| REACTION PRODUCTS OF 1,6-DIISOCYANATOHEXANE WITH 2-[(2-METHACRYLOYL)ETHYL]6-HYDROXYHEXANOATE AND 2-HYDROXYETHYL METHACRYLATE (DESMA)                               | 1101874-33-2 | 10 - 15 Trade Secret * |
| SILANE TREATED SILICA                                                                                                                                              | 68909-20-6   | 5 - 10 Trade Secret *  |
| Ethyl Acetate                                                                                                                                                      | 141-78-6     | < 2 Trade Secret *     |

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

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

No need for first aid is anticipated.

**Skin Contact:**

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

**Eye Contact:**

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

**If Swallowed:**

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

**SECTION 5: Fire-fighting measures****5.1. Suitable extinguishing media**

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

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

None inherent in this product.

**Hazardous Decomposition or By-Products****Substance**

Carbon monoxide  
Carbon dioxide  
Irritant Vapors or Gases

**Condition**

During Combustion  
During Combustion  
During Combustion

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

No special protective actions for fire-fighters are anticipated.

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

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**

Avoid prolonged or repeated skin contact. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

**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**

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

| Ingredient        | C.A.S. No. | Agency | Limit type                                                                    | Additional Comments |
|-------------------|------------|--------|-------------------------------------------------------------------------------|---------------------|
| Ethyl Acetate     | 141-78-6   | OSHA   | TWA:1400 mg/m <sup>3</sup> (400 ppm)                                          |                     |
| Ethyl Acetate     | 141-78-6   | ACGIH  | TWA:400 ppm                                                                   |                     |
| SILICA, AMORPHOUS | 68909-20-6 | OSHA   | TWA concentration:0.8 mg/m <sup>3</sup> ;TWA:20 millions of particles/cu. ft. |                     |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

## 8.2. Exposure controls

### 8.2.1. Engineering controls

Use in a well-ventilated area.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

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

#### Skin/hand protection

See Section 7.1 for additional information on skin protection.

#### Respiratory protection

None required.

## SECTION 9: Physical and chemical properties

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

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

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

**10.2. Chemical stability**

Stable.

**10.3. Possibility of hazardous reactions**

Hazardous polymerization will not occur.

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

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.

**Eye Contact:**

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

**Ingestion:**

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

**Toxicological Data**

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

**Acute Toxicity**

| Name                                                                                                                                                               | Route                          | Species                | Value                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------|------------------------------------------------|
| Overall product                                                                                                                                                    | Dermal                         |                        | No data available; calculated ATE >5,000 mg/kg |
| Overall product                                                                                                                                                    | Ingestion                      |                        | No data available; calculated ATE >5,000 mg/kg |
| DIMETHACRYLATE (BISEMA6)                                                                                                                                           | Dermal                         | Professional judgement | LD50 estimated to be > 5,000 mg/kg             |
| DIMETHACRYLATE (BISEMA6)                                                                                                                                           | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                             |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Dermal                         | Rabbit                 | LD50 > 5,000 mg/kg                             |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 0.691 mg/l                              |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Ingestion                      | Rat                    | LD50 > 5,110 mg/kg                             |
| REACTION PRODUCTS OF 1,6-DIISOCYANATOHEXANE WITH 2-[(2-METHACRYLOYL)ETHYL]6-HYDROXYHEXANOATE AND 2-HYDROXYETHYL METHACRYLATE (DESMA)                               | Dermal                         |                        | LD50 estimated to be 2,000 - 5,000 mg/kg       |
| REACTION PRODUCTS OF 1,6-DIISOCYANATOHEXANE WITH 2-[(2-METHACRYLOYL)ETHYL]6-HYDROXYHEXANOATE AND 2-HYDROXYETHYL METHACRYLATE (DESMA)                               | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                             |
| SILANE TREATED SILICA                                                                                                                                              | Dermal                         | Rabbit                 | LD50 > 5,000 mg/kg                             |
| SILANE TREATED SILICA                                                                                                                                              | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 0.691 mg/l                              |
| SILANE TREATED SILICA                                                                                                                                              | Ingestion                      | Rat                    | LD50 > 5,110 mg/kg                             |
| Ethyl Acetate                                                                                                                                                      | Dermal                         | Rabbit                 | LD50 > 18,000 mg/kg                            |
| Ethyl Acetate                                                                                                                                                      | Inhalation-Vapor (4 hours)     | Rat                    | LC50 70.5 mg/l                                 |
| Ethyl Acetate                                                                                                                                                      | Ingestion                      | Rat                    | LD50 5,620 mg/kg                               |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                                                                                                                                                               | Species | Value                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------|
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Rabbit  | No significant irritation |
| REACTION PRODUCTS OF 1,6-DIISOCYANATOHEXANE WITH 2-[(2-METHACRYLOYL)ETHYL]6-HYDROXYHEXANOATE AND 2-HYDROXYETHYL METHACRYLATE (DESMA)                               | Rabbit  | Minimal irritation        |
| SILANE TREATED SILICA                                                                                                                                              | Rabbit  | No significant irritation |
| Ethyl Acetate                                                                                                                                                      | Rabbit  | Minimal irritation        |

**Serious Eye Damage/Irritation**

| Name                                                                                                                                                               | Species       | Value                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------|
| Overall product                                                                                                                                                    | Rabbit        | Mild irritant             |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Rabbit        | No significant irritation |
| REACTION PRODUCTS OF 1,6-DIISOCYANATOHEXANE WITH 2-[(2-METHACRYLOYL)ETHYL]6-HYDROXYHEXANOATE AND 2-HYDROXYETHYL METHACRYLATE (DESMA)                               | In vitro data | No significant irritation |

|                       |        |                           |
|-----------------------|--------|---------------------------|
| SILANE TREATED SILICA | Rabbit | No significant irritation |
| Ethyl Acetate         | Rabbit | Mild irritant             |

### Skin Sensitization

| Name                                                                                                                                                               | Species          | Value          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| DIMETHACRYLATE (BISEMA6)                                                                                                                                           | Guinea pig       | Not classified |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Human and animal | Not classified |
| REACTION PRODUCTS OF 1,6-DIISOCYANATOHEXANE WITH 2-[(2-METHACRYLOYL)ETHYL]6-HYDROXYHEXANOATE AND 2-HYDROXYETHYL METHACRYLATE (DESMA)                               | Mouse            | Not classified |
| SILANE TREATED SILICA                                                                                                                                              | Human and animal | Not classified |
| Ethyl Acetate                                                                                                                                                      | Guinea pig       | Not classified |

### Respiratory Sensitization

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

### Germ Cell Mutagenicity

| Name                                                                                                                                                               | Route    | Value         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|
| DIMETHACRYLATE (BISEMA6)                                                                                                                                           | In Vitro | Not mutagenic |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | In Vitro | Not mutagenic |
| REACTION PRODUCTS OF 1,6-DIISOCYANATOHEXANE WITH 2-[(2-METHACRYLOYL)ETHYL]6-HYDROXYHEXANOATE AND 2-HYDROXYETHYL METHACRYLATE (DESMA)                               | In Vitro | Not mutagenic |
| SILANE TREATED SILICA                                                                                                                                              | In Vitro | Not mutagenic |
| Ethyl Acetate                                                                                                                                                      | In Vitro | Not mutagenic |
| Ethyl Acetate                                                                                                                                                      | In vivo  | Not mutagenic |

### Carcinogenicity

| Name                                                                                                                                                               | Route         | Species | Value                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|------------------------------------------------------------------------------|
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Not Specified | Mouse   | Some positive data exist, but the data are not sufficient for classification |
| SILANE TREATED SILICA                                                                                                                                              | Not Specified | Mouse   | Some positive data exist, but the data are not sufficient for classification |

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

| Name                                                                                                                                                               | Route     | Value                                  | Species | Test Result           | Exposure Duration    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------|---------|-----------------------|----------------------|
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Ingestion | Not classified for female reproduction | Rat     | NOAEL 509 mg/kg/day   | 1 generation         |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 497 mg/kg/day   | 1 generation         |
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Ingestion | Not classified for development         | Rat     | NOAEL 1,350 mg/kg/day | during organogenesis |
| SILANE TREATED SILICA                                                                                                                                              | Ingestion | Not classified for female reproduction | Rat     | NOAEL 509 mg/kg/day   | 1 generation         |
| SILANE TREATED SILICA                                                                                                                                              | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 497             | 1 generation         |

|                       |           |                                |     |                       |                      |
|-----------------------|-----------|--------------------------------|-----|-----------------------|----------------------|
|                       |           |                                |     | mg/kg/day             |                      |
| SILANE TREATED SILICA | Ingestion | Not classified for development | Rat | NOAEL 1,350 mg/kg/day | during organogenesis |

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

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

**Specific Target Organ Toxicity - repeated exposure**

| Name                                                                                                                                                               | Route      | Target Organ(s)                                      | Value          | Species | Test Result           | Exposure Duration     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------|----------------|---------|-----------------------|-----------------------|
| Amorphous silica (7631-86-9), surface modified with 2-propenoic acid, methyl-, 3-(trimethoxysilyl)propyl ester (2530-80-0) and phenyltrimethoxy silane (2996-92-1) | Inhalation | respiratory system   silicosis                       | Not classified | Human   | NOAEL Not available   | occupational exposure |
| SILANE TREATED SILICA                                                                                                                                              | Inhalation | respiratory system   silicosis                       | Not classified | Human   | NOAEL Not available   | occupational exposure |
| Ethyl Acetate                                                                                                                                                      | Inhalation | endocrine system   liver   nervous system            | Not classified | Rat     | NOAEL 0.043 mg/l      | 90 days               |
| Ethyl Acetate                                                                                                                                                      | Inhalation | hematopoietic system                                 | Not classified | Rabbit  | LOAEL 16 mg/l         | 40 days               |
| Ethyl Acetate                                                                                                                                                      | Ingestion  | hematopoietic system   liver   kidney and/or bladder | Not classified | Rat     | NOAEL 3,600 mg/kg/day | 90 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. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

**EPA Hazardous Waste Number (RCRA):** Not regulated

## SECTION 14: Transport Information

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

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### 311/312 Hazard Categories:

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

#### EPCRA 311/312 Hazard Classifications (effective January 1, 2018):

##### Physical Hazards

Not applicable

##### Health Hazards

Not applicable

### 15.2. State Regulations

Contact 3M for more information.

#### California Proposition 65

| <u><b>Ingredient</b></u> | <u><b>C.A.S. No.</b></u> | <u><b>Classification</b></u> |
|--------------------------|--------------------------|------------------------------|
| Toluene                  | 108-88-3                 | Developmental Toxin          |

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

### 15.3. Chemical Inventories

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

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

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

**SECTION 16: Other information****NFPA Hazard Classification****Health:** 0 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

**Document Group:** 24-8564-7  
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**Version Number:** 6.00  
**Supersedes Date:** 02/25/16

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**Supersedes Date:** 02/25/16

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ PROTEMP™ PLUS CATALYST PASTE

#### Product Identification Numbers

LE-F100-0543-9, LE-F100-0714-8

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

##### Recommended use

Dental Material, Temporary crown and bridge material

##### Restrictions on use

For use only by dental professionals

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard identification

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

#### 2.1. Hazard classification

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

Organic Peroxide: Type D.

#### 2.2. Label elements

##### Signal word

Danger

**Symbols**

Flame |

**Pictograms****Hazard Statements**

Heating may cause a fire.

**Precautionary Statements****Prevention:**

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

Keep away from clothing and other combustible materials.

Keep only in original container.

Wear protective gloves and eye/face protection.

**Storage:**

Protect from sunlight.

Store at temperatures not exceeding 5C/40F. Keep cool.

Store away from other materials.

**Disposal:**

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

6% of the mixture consists of ingredients of unknown acute oral toxicity.

6% of the mixture consists of ingredients of unknown acute dermal toxicity.

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

| <b>Ingredient</b>                                                                                       | <b>C.A.S. No.</b> | <b>% by Wt</b>         |
|---------------------------------------------------------------------------------------------------------|-------------------|------------------------|
| ETHANOL, 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXY)]BIS-, DIACETATE                                | 19224-29-4        | 70 - 80 Trade Secret * |
| BENZYL-PHENYL-BARBITURIC ACID                                                                           | 72846-00-5        | 5 - 15 Trade Secret *  |
| SILANE TREATED SILICA                                                                                   | 68909-20-6        | 5 - 15 Trade Secret *  |
| (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl)(1-phenyleneoxy-2,2'ethoxyethanediyl)bisacetate | None              | 5 - 10 Trade Secret *  |

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

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

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

**Skin Contact:**

Wash with soap and water. If you feel unwell, get medical attention.

**Eye Contact:**

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

**If Swallowed:**

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

**SECTION 5: Fire-fighting measures****5.1. Suitable extinguishing media**

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

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

None inherent in this product.

**Hazardous Decomposition or By-Products****Substance**

Carbon monoxide

Carbon dioxide

Irritant Vapors or Gases

**Condition**

During Combustion

During Combustion

During Combustion

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

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

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

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment.

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

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

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

Avoid prolonged or repeated skin contact. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Do not get in eyes.

## 7.2. Conditions for safe storage including any incompatibilities

Protect from sunlight. Store away from heat. Store at temperatures not exceeding 5C/40F. Store at temperatures not exceeding 5C/40F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

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

| Ingredient        | C.A.S. No. | Agency | Limit type                                                                    | Additional Comments |
|-------------------|------------|--------|-------------------------------------------------------------------------------|---------------------|
| SILICA, AMORPHOUS | 68909-20-6 | OSHA   | TWA concentration:0.8 mg/m <sup>3</sup> ;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. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

#### 8.2.2. Personal protective equipment (PPE)

##### Eye/face protection

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

Safety Glasses with side shields

##### Skin/hand protection

See Section 7.1 for additional information on skin protection.

##### Respiratory protection

None required.

## SECTION 9: Physical and chemical properties

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

General Physical Form:

Solid

Specific Physical Form:

Paste

Odor, Color, Grade:

white, paste, slight acridic odor

|                                         |                              |
|-----------------------------------------|------------------------------|
| Odor threshold                          | No Data Available            |
| pH                                      | Not Applicable               |
| Melting point                           | No Data Available            |
| Boiling Point                           | No Data Available            |
| Flash Point                             | No flash point               |
| Evaporation rate                        | No Data Available            |
| Flammability (solid, gas)               | Organic Peroxide: Type D.    |
| Flammable Limits(LEL)                   | No Data Available            |
| Flammable Limits(UEL)                   | No Data Available            |
| Vapor Pressure                          | No Data Available            |
| Vapor Density                           | No Data Available            |
| Density                                 | 1.2 - 1.3 g/cm <sup>3</sup>  |
| Specific Gravity                        | 1.2 - 1.3 [Ref Std: WATER=1] |
| Solubility in Water                     | Negligible                   |
| Solubility- non-water                   | No Data Available            |
| Partition coefficient: n-octanol/ water | No Data Available            |
| Autoignition temperature                | No Data Available            |
| Decomposition temperature               | No Data Available            |
| Viscosity                               | No Data Available            |
| Molecular weight                        | No Data Available            |
| Percent volatile                        | No Data Available            |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Heat

### 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:

May be harmful in contact with skin.

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

##### Eye Contact:

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

##### Ingestion:

May be harmful if swallowed.

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

#### Toxicological Data

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

##### Acute Toxicity

| Name                                                                     | Route                          | Species                | Value                                                |
|--------------------------------------------------------------------------|--------------------------------|------------------------|------------------------------------------------------|
| Overall product                                                          | Dermal                         |                        | No data available; calculated ATE2,000 - 5,000 mg/kg |
| Overall product                                                          | Ingestion                      |                        | No data available; calculated ATE2,000 - 5,000 mg/kg |
| ETHANOL, 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXY)]BIS-, DIACETATE | Dermal                         | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg             |
| ETHANOL, 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXY)]BIS-, DIACETATE | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                                   |
| BENZYL-PHENYL-BARBITURIC ACID                                            | Dermal                         | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg             |
| BENZYL-PHENYL-BARBITURIC ACID                                            | Ingestion                      | Rat                    | LD50 > 2,000 mg/kg                                   |
| SILANE TREATED SILICA                                                    | Dermal                         | Rabbit                 | LD50 > 5,000 mg/kg                                   |
| SILANE TREATED SILICA                                                    | Inhalation-Dust/Mist (4 hours) | Rat                    | LC50 > 0.691 mg/l                                    |
| SILANE TREATED SILICA                                                    | Ingestion                      | Rat                    | LD50 > 5,110 mg/kg                                   |

ATE = acute toxicity estimate

##### Skin Corrosion/Irritation

| Name                                                                     | Species       | Value                     |
|--------------------------------------------------------------------------|---------------|---------------------------|
| ETHANOL, 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXY)]BIS-, DIACETATE | In vitro data | No significant irritation |

|                       |        |                           |
|-----------------------|--------|---------------------------|
| SILANE TREATED SILICA | Rabbit | No significant irritation |
|-----------------------|--------|---------------------------|

**Serious Eye Damage/Irritation**

| Name                                                                     | Species       | Value                     |
|--------------------------------------------------------------------------|---------------|---------------------------|
| ETHANOL, 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXY)]BIS-, DIACETATE | In vitro data | No significant irritation |
| SILANE TREATED SILICA                                                    | Rabbit        | No significant irritation |

**Skin Sensitization**

| Name                                                                     | Species          | Value          |
|--------------------------------------------------------------------------|------------------|----------------|
| ETHANOL, 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXY)]BIS-, DIACETATE | Mouse            | Not classified |
| BENZYL-PHENYL-BARBITURIC ACID                                            | Mouse            | Not classified |
| SILANE TREATED SILICA                                                    | Human and animal | Not classified |

**Respiratory Sensitization**

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

**Germ Cell Mutagenicity**

| Name                                                                     | Route    | Value         |
|--------------------------------------------------------------------------|----------|---------------|
| ETHANOL, 2,2'-[(1-METHYLETHYLIDENE)BIS(4,1-PHENYLENEOXY)]BIS-, DIACETATE | In Vitro | Not mutagenic |
| BENZYL-PHENYL-BARBITURIC ACID                                            | In Vitro | Not mutagenic |
| SILANE TREATED SILICA                                                    | In Vitro | Not mutagenic |

**Carcinogenicity**

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

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

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

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

| Name                          | Route     | Target Organ(s) | Value          | Species | Test Result       | Exposure Duration |
|-------------------------------|-----------|-----------------|----------------|---------|-------------------|-------------------|
| BENZYL-PHENYL-BARBITURIC ACID | Ingestion | nervous system  | Not classified | Rat     | NOAEL 2,000 mg/kg |                   |

**Specific Target Organ Toxicity - repeated exposure**

| Name                  | Route      | Target Organ(s)                | Value          | Species | Test Result         | Exposure Duration     |
|-----------------------|------------|--------------------------------|----------------|---------|---------------------|-----------------------|
| SILANE TREATED SILICA | Inhalation | respiratory system   silicosis | Not classified | Human   | NOAEL Not available | occupational exposure |

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information****Ecotoxicological information**

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

**Chemical fate information**

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

**SECTION 13: Disposal considerations****13.1. Disposal methods**

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility.

**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**

Organic peroxide

**Health Hazards**

Not applicable

**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.

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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