



## Safety Data Sheet

Copyright, 2015, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 16-2828-8 | <b>Version Number:</b>  | 3.04     |
| <b>Issue Date:</b>     | 04/15/15  | <b>Supersedes Date:</b> | 03/28/12 |

### Product identifier

3M™ ESPE™ DURELON™ Intro Kit

### ID Number(s):

70-2011-0031-3, 70-2011-1017-1, 70-2011-3599-6, 70-2011-3600-2

### Recommended use

Dental Product, Dental cement

### Restrictions on use

For use only by dental professionals

### Supplier's details

|                      |                                         |
|----------------------|-----------------------------------------|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | 3M ESPE Dental Products                 |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 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:**

16-2827-0, 16-2826-2

**DISCLAIMER:** The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy.

In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

**3M USA SDSs are available at [www.3M.com](http://www.3M.com)**



## Safety Data Sheet

Copyright, 2014, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 16-2826-2 | <b>Version Number:</b>  | 8.00     |
| <b>Issue Date:</b>     | 12/05/14  | <b>Supersedes Date:</b> | 03/26/12 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ DURELON™ LIQUID UNIVERSAL

#### Product Identification Numbers

70-2011-0036-2, 70-2011-0331-7, 70-2011-0332-5

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

##### Recommended use

Dental Product, Cement

##### Restrictions on use

For use only by dental professionals

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard identification

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

#### 2.1. Hazard classification

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

#### 2.2. Label elements

##### Signal word

Not applicable.

##### Symbols

Not applicable.

**Pictograms**

Not applicable.

**2.3. Hazards not otherwise classified**

None.

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

| Ingredient       | C.A.S. No. | % by Wt                |
|------------------|------------|------------------------|
| WATER            | 7732-18-5  | 50 - 65 Trade Secret * |
| POLYACRYLIC ACID | 9003-01-4  | 40 - 50 Trade Secret * |

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

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

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

**Skin Contact:**

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

**Eye Contact:**

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

**If Swallowed:**

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

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

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

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

None inherent in this product.

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

Hydrocarbons  
Carbon monoxide  
Carbon dioxide

**Condition**

During Combustion  
During Combustion  
During Combustion

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

No special protective actions for fire-fighters are anticipated.

## SECTION 6: Accidental release measures

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

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

### 6.2. Environmental precautions

Avoid release to the environment.

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

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. 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.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid prolonged or repeated skin contact. Avoid breathing dust/fume/gas/mist/vapors/spray. 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

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

Respiratory protection is not required.

## SECTION 9: Physical and chemical properties

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

|                                         |                              |
|-----------------------------------------|------------------------------|
| General Physical Form:                  | Liquid                       |
| Specific Physical Form:                 | Liquid                       |
| Odor, Color, Grade:                     | Colorless, odorless          |
| Odor threshold                          | No Data Available            |
| pH                                      | No Data Available            |
| Melting point                           | Not Applicable               |
| Boiling Point                           | 212 °F                       |
| Flash Point                             | Flash point > 93 °C (200 °F) |
| Evaporation rate                        | No Data Available            |
| Flammability (solid, gas)               | Not Applicable               |
| Flammable Limits(LEL)                   | Not Applicable               |
| Flammable Limits(UEL)                   | Not Applicable               |
| Vapor Pressure                          | No Data Available            |
| Vapor Density                           | No Data Available            |
| Density                                 | No Data Available            |
| Specific Gravity                        | >=1.0 [Ref Std: WATER=1]     |
| Solubility in Water                     | Complete                     |
| Solubility- non-water                   | No Data Available            |
| Partition coefficient: n-octanol/ water | No Data Available            |
| Autoignition temperature                | No Data Available            |
| Decomposition temperature               | No Data Available            |
| Viscosity                               | No Data Available            |
| Volatile Organic Compounds              | Not Applicable               |
| Percent volatile                        | No Data Available            |
| VOC Less H2O & Exempt Solvents          | 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

None known.

### 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:

#### Inhalation:

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

#### Skin Contact:

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

#### Eye Contact:

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

#### Ingestion:

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

#### Toxicological Data

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

#### Acute Toxicity

| Name             | Route     | Species | Value                                           |
|------------------|-----------|---------|-------------------------------------------------|
| Overall product  | Ingestion |         | No data available; calculated ATE > 5,000 mg/kg |
| POLYACRYLIC ACID | Dermal    | Rabbit  | LD50 > 3,000 mg/kg                              |
| POLYACRYLIC ACID | Ingestion | Rat     | LD50 > 2,500 mg/kg                              |

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

| Name            | Species | Value              |
|-----------------|---------|--------------------|
| Overall product | Rabbit  | Minimal irritation |

#### Serious Eye Damage/Irritation

| Name            | Species       | Value                     |
|-----------------|---------------|---------------------------|
| Overall product | In vitro data | No significant irritation |

#### Skin Sensitization

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|

**Respiratory Sensitization**

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|

**Germ Cell Mutagenicity**

| Name | Route | Value |
|------|-------|-------|
|------|-------|-------|

**Carcinogenicity**

| Name | Route | Species | Value |
|------|-------|---------|-------|
|------|-------|---------|-------|

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

| Name | Route | Value | Species | Test Result | Exposure Duration |
|------|-------|-------|---------|-------------|-------------------|
|------|-------|-------|---------|-------------|-------------------|

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

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------|-------|-----------------|-------|---------|-------------|-------------------|
|------|-------|-----------------|-------|---------|-------------|-------------------|

**Specific Target Organ Toxicity - repeated exposure**

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------|-------|-----------------|-------|---------|-------------|-------------------|
|------|-------|-----------------|-------|---------|-------------|-------------------|

**Aspiration Hazard**

| Name | Value |
|------|-------|
|------|-------|

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

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

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

**Chemical fate information**

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

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

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

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

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

**SECTION 14: Transport Information**



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

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### 311/312 Hazard Categories:

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

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

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

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

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information.

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

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

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

## SECTION 16: Other information

### NFPA Hazard Classification

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

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

**Document Group:** 16-2826-2  
**Issue Date:** 12/05/14

**Version Number:** 8.00  
**Supersedes Date:** 03/26/12

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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

**3M USA SDSs are available at [www.3M.com](http://www.3M.com)**



## Safety Data Sheet

Copyright, 2015, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 16-2827-0 | <b>Version Number:</b>  | 8.00     |
| <b>Issue Date:</b>     | 05/28/15  | <b>Supersedes Date:</b> | 08/31/11 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ ESPE™ DURELON POWDER NORMAL SETTING

#### Product Identification Numbers

LE-F100-0990-0, 70-2011-0329-1, 70-2011-3601-0

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

##### Recommended use

Dental Product, Luting Cement

##### Restrictions on use

For use only by dental professionals

#### 1.3. Supplier's details

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

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard identification

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

#### 2.1. Hazard classification

Specific Target Organ Toxicity (repeated exposure): Category 1.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Health Hazard |

**Pictograms****Hazard Statements**

Causes damage to organs through prolonged or repeated exposure:  
musculoskeletal system |

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

Do not breathe dust/fume/gas/mist/vapors/spray.  
Do not eat, drink or smoke when using this product.  
Wash thoroughly after handling.

**Response:**

Get medical advice/attention if you feel unwell.

**Disposal:**

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

**2.3. Hazards not otherwise classified**

None.

5% of the mixture consists of ingredients of unknown acute inhalation toxicity.

## SECTION 3: Composition/information on ingredients

| Ingredient        | C.A.S. No. | % by Wt                |
|-------------------|------------|------------------------|
| ZINC OXIDE        | 1314-13-2  | 85 - 95 Trade Secret * |
| STANNOUS FLUORIDE | 7783-47-3  | 1 - 10 Trade Secret *  |
| TIN DIOXIDE       | 18282-10-5 | 1 - 5 Trade Secret *   |

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

## SECTION 4: First aid measures

**4.1. Description of first aid measures****Inhalation:**

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

**Skin Contact:**

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

**Eye Contact:**

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

**If Swallowed:**

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

## SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

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> | <u>Condition</u>  |
|------------------|-------------------|
| None known.      | 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. Use wet sweeping compound or water to avoid dusting. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Avoid prolonged or repeated skin contact. Do not breathe dust/fume/gas/mist/vapors/spray. 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

No special storage requirements.

## 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            |
|-----------------------------------------|------------|--------|-----------------------------------------------------------------------------------|--------------------------------|
| ZINC OXIDE                              | 1314-13-2  | ACGIH  | TWA(respirable fraction):2 mg/m3;STEL(respirable fraction):10 mg/m3               |                                |
| ZINC OXIDE                              | 1314-13-2  | OSHA   | TWA(as fume):5 mg/m3;TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3 |                                |
| TIN, INORGANIC COMPOUNDS, EXCEPT SnH4   | 18282-10-5 | ACGIH  | TWA(as Sn):2 mg/m3                                                                |                                |
| FLUORIDES                               | 7783-47-3  | ACGIH  | TWA(as F):2.5 mg/m3                                                               | A4: Not class. as human carcin |
| FLUORIDES                               | 7783-47-3  | OSHA   | TWA(as dust):2.5 mg/m3;TWA(as F):2.5 mg/m3                                        |                                |
| TIN, INORGANIC COMPOUNDS, EXCEPT OXIDES | 7783-47-3  | OSHA   | TWA(as Sn):2 mg/m3                                                                |                                |
| TIN, INORGANIC COMPOUNDS, EXCEPT SnH4   | 7783-47-3  | ACGIH  | TWA(as Sn):2 mg/m3                                                                |                                |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

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

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

## 8.2. Exposure controls

### 8.2.1. Engineering controls

Use in a well-ventilated area.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

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

Safety Glasses with side shields

#### Skin/hand protection

See Section 7.1 for additional information on skin protection.

#### Respiratory protection

None required.

## SECTION 9: Physical and chemical properties

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

|                         |                                                    |
|-------------------------|----------------------------------------------------|
| General Physical Form:  | Solid                                              |
| Specific Physical Form: | Powder                                             |
| Odor, Color, Grade:     | Slight characteristic odor, slightly pink in color |
| Odor threshold          | No Data Available                                  |
| pH                      | Not Applicable                                     |
| Melting point           | No Data Available                                  |

|                                                |                          |
|------------------------------------------------|--------------------------|
| <b>Boiling Point</b>                           | <i>Not Applicable</i>    |
| <b>Flash Point</b>                             | No flash point           |
| <b>Evaporation rate</b>                        | <i>Not Applicable</i>    |
| <b>Flammability (solid, gas)</b>               | Not Classified           |
| <b>Flammable Limits(LEL)</b>                   | <i>Not Applicable</i>    |
| <b>Flammable Limits(UEL)</b>                   | <i>Not Applicable</i>    |
| <b>Vapor Pressure</b>                          | <i>Not Applicable</i>    |
| <b>Vapor Density</b>                           | <i>Not Applicable</i>    |
| <b>Density</b>                                 | <i>No Data Available</i> |
| <b>Specific Gravity</b>                        | 4.7 [Ref Std: WATER=1]   |
| <b>Solubility in Water</b>                     | Nil                      |
| <b>Solubility- non-water</b>                   | <i>No Data Available</i> |
| <b>Partition coefficient: n-octanol/ water</b> | <i>No Data Available</i> |
| <b>Autoignition temperature</b>                | <i>No Data Available</i> |
| <b>Decomposition temperature</b>               | <i>No Data Available</i> |
| <b>Viscosity</b>                               | <i>Not Applicable</i>    |
| <b>Volatile Organic Compounds</b>              | <i>Not Applicable</i>    |
| <b>Percent volatile</b>                        | <i>Not Applicable</i>    |
| <b>VOC Less H2O &amp; Exempt Solvents</b>      | <i>Not Applicable</i>    |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material 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

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.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

##### Inhalation:

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

May cause additional health effects (see below).

##### Skin Contact:

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

##### Eye Contact:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

##### Ingestion:

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

May cause additional health effects (see below).

#### Additional Health Effects:

##### Prolonged or repeated exposure may cause target organ effects:

Hard Tissue Effects: Signs/symptoms may include color changes in the teeth and nails; changes in development of bone, teeth or nails; weakening of the bones; and/or hair loss.

#### 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   | Inhalation-Dust/Mist(4 hr)     |         | No data available; calculated ATE > 12.5 mg/l   |
| Overall product   | Ingestion                      |         | No data available; calculated ATE > 5,000 mg/kg |
| ZINC OXIDE        | Dermal                         |         | LD50 estimated to be > 5,000 mg/kg              |
| ZINC OXIDE        | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 5.7 mg/l                                 |
| ZINC OXIDE        | Ingestion                      | Rat     | LD50 > 5,000 mg/kg                              |
| STANNOUS FLUORIDE | Ingestion                      | Rat     | LD50 360 mg/kg                                  |
| TIN DIOXIDE       | Dermal                         |         | LD50 estimated to be > 5,000 mg/kg              |
| TIN DIOXIDE       | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 2.04 mg/l                                |
| TIN DIOXIDE       | Ingestion                      | Rat     | LD50 > 2,000 mg/kg                              |

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

| Name       | Species   | Value                     |
|------------|-----------|---------------------------|
| ZINC OXIDE | Human and | No significant irritation |



|                   |                                          |                           |
|-------------------|------------------------------------------|---------------------------|
| STANNOUS FLUORIDE | animal<br>official<br>classifica<br>tion | Irritant                  |
| TIN DIOXIDE       | In vitro<br>data                         | No significant irritation |

**Serious Eye Damage/Irritation**

| Name              | Species                        | Value                     |
|-------------------|--------------------------------|---------------------------|
| ZINC OXIDE        | Rabbit                         | Mild irritant             |
| STANNOUS FLUORIDE | official<br>classifica<br>tion | Severe irritant           |
| TIN DIOXIDE       | Rabbit                         | No significant irritation |

**Skin Sensitization**

| Name       | Species       | Value                                                                           |
|------------|---------------|---------------------------------------------------------------------------------|
| ZINC OXIDE | Guinea<br>pig | Some positive data exist, but the data are not<br>sufficient for classification |

**Respiratory Sensitization**

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

**Germ Cell Mutagenicity**

| Name              | Route    | Value                                                                           |
|-------------------|----------|---------------------------------------------------------------------------------|
| ZINC OXIDE        | In Vitro | Some positive data exist, but the data are not<br>sufficient for classification |
| ZINC OXIDE        | In vivo  | Some positive data exist, but the data are not<br>sufficient for classification |
| STANNOUS FLUORIDE | In vivo  | Not mutagenic                                                                   |
| STANNOUS FLUORIDE | In Vitro | Some positive data exist, but the data are not<br>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**

| Name       | Route     | Value                                                                                                            | Species                       | Test Result            | Exposure<br>Duration               |
|------------|-----------|------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------|------------------------------------|
| ZINC OXIDE | Ingestion | Some positive<br>reproductive/developmental data exist,<br>but the data are not sufficient for<br>classification | Multiple<br>animal<br>species | NOAEL 125<br>mg/kg/day | premating &<br>during<br>gestation |

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

| Name              | Route      | Target Organ(s)        | Value                                                                              | Species | Test Result            | Exposure<br>Duration     |
|-------------------|------------|------------------------|------------------------------------------------------------------------------------|---------|------------------------|--------------------------|
| STANNOUS FLUORIDE | Inhalation | respiratory irritation | Some positive data exist, but the<br>data are not sufficient for<br>classification | Human   | NOAEL Not<br>available | occupational<br>exposure |

**Specific Target Organ Toxicity - repeated exposure**

| Name       | Route     | Target Organ(s) | Value                                                                              | Species | Test Result            | Exposure<br>Duration |
|------------|-----------|-----------------|------------------------------------------------------------------------------------|---------|------------------------|----------------------|
| ZINC OXIDE | Ingestion | nervous system  | Some positive data exist, but the<br>data are not sufficient for<br>classification | Rat     | NOAEL 600<br>mg/kg/day | 10 days              |

|                   |            |                                                                 |                                                                              |       |                      |                        |
|-------------------|------------|-----------------------------------------------------------------|------------------------------------------------------------------------------|-------|----------------------|------------------------|
| ZINC OXIDE        | Ingestion  | endocrine system   hematopoietic system   kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Other | NOAEL 500 mg/kg/day  | 6 months               |
| STANNOUS FLUORIDE | Inhalation | bone, teeth, nails, and/or hair                                 | Causes damage to organs through prolonged or repeated exposure               | Human | NOAEL Not available  | occupational exposure  |
| STANNOUS FLUORIDE | Ingestion  | bone, teeth, nails, and/or hair                                 | Causes damage to organs through prolonged or repeated exposure               | Human | NOAEL 0.33 mg/kg/day | environmental exposure |
| TIN DIOXIDE       | Inhalation | pneumoconiosis                                                  | Some positive data exist, but the data are not sufficient for classification | 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. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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

**SECTION 14: Transport Information**

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

**SECTION 15: Regulatory information****15.1. US Federal Regulations**

Contact 3M for more information.

**311/312 Hazard Categories:**

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

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

| <u><b>Ingredient</b></u>    | <u><b>C.A.S. No</b></u> | <u><b>% by Wt</b></u> |
|-----------------------------|-------------------------|-----------------------|
| ZINC OXIDE (ZINC COMPOUNDS) | 1314-13-2               | 85 - 95               |

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information.

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

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

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information.

The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information.

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

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

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

## SECTION 16: Other information

### NFPA Hazard Classification

**Health:** 1 **Flammability:** 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.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 16-2827-0 | <b>Version Number:</b>  | 8.00     |
| <b>Issue Date:</b>     | 05/28/15  | <b>Supersedes Date:</b> | 08/31/11 |

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

NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

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

**3M USA SDSs are available at [www.3M.com](http://www.3M.com)**