



## Safety Data Sheet

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**Document Group:** 05-6732-1  
**Issue Date:** 01/27/23

**Version Number:** 20.03  
**Supersedes Date:** 11/16/22

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ RelyX™ Luting Cement Powder (3505P, 3515P)

#### Product Identification Numbers

70-2010-1754-1, 70-2010-2503-1, 70-2010-2699-7, 70-2010-3121-1, 70-2014-2057-0  
7100111762, 7000054231, 7100111780, 7100301595

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

##### Recommended use

Dental Product, Luting cement powder

##### 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

Respiratory Sensitizer: Category 1.

Carcinogenicity: Category 2.

#### 2.2. Label elements

##### Signal word

Danger

**Symbols**

Health Hazard |

**Pictograms****Hazard Statements**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Suspected of causing cancer.

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

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wear respiratory protection.

**Response:**

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
IF exposed or concerned: Get medical advice/attention.

**Disposal:**

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

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

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>
Silane Treated Glass	None	90 - 99 Trade Secret *
Silane Treated Titanium Dioxide	404362-17-0	< 1 Trade Secret *
Potassium Persulfate	7727-21-1	< 0.5 Trade Secret *

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

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

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**

Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest).

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

Not applicable

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

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

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

None inherent in this product.

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

Carbon monoxide

Carbon dioxide

**Condition**

During Combustion

During Combustion

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

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

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

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. 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**

Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Do not get in eyes. Use personal protective equipment (gloves, respirators, etc.) as required. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.

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

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
PERSULFATE COMPOUNDS	7727-21-1	ACGIH	TWA(as persulfate):0.1 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

#### Appearance

##### Physical state

Solid

##### Color

White

#### Specific Physical Form:

Coarse Powder

#### Odor

Slight Odor, Characteristic Odor

#### Odor threshold

*No Data Available*

#### pH

*Not Applicable*

#### Melting point

*No Data Available*

#### Boiling Point

*Not Applicable*

#### Flash Point

No flash point

#### Evaporation rate

*Not Applicable*

#### Flammability (solid, gas)

Not Classified

#### Flammable Limits(LEL)

*Not Applicable*

#### Flammable Limits(UEL)

*Not Applicable*

#### Vapor Pressure

*Not Applicable*

#### Vapor Density

*Not Applicable*

#### Density

2.8 g/cm3

#### Specific Gravity

2.8 [Ref Std:WATER=1]

Solubility In Water	<i>Not Applicable</i>
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>Not Applicable</i>
Autoignition temperature	<i>No Data Available</i>
Decomposition temperature	<i>No Data Available</i>
Viscosity	<i>Not Applicable</i>
Molecular weight	<i>No Data Available</i>
Volatile Organic Compounds	<i>Not Applicable</i>
Percent volatile	<i>Not Applicable</i>
VOC Less H2O & Exempt Solvents	<i>Not Applicable</i>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material 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

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

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

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

The information below represents toxicological information associated with the individual components of the uncured product. Once properly mixed and/or cured, the product is safe for its intended use.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

#### Inhalation:

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

**Allergic Respiratory Reaction:** Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

May cause additional health effects (see below).

#### **Skin Contact:**

**Mechanical Skin irritation:** Signs/symptoms may include abrasion, redness, pain, and itching.

#### **Eye Contact:**

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

#### **Ingestion:**

May be harmful if swallowed.

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

#### **Additional Health Effects:**

#### **Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

#### **Toxicological Data**

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

#### **Acute Toxicity**

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
Silane Treated Glass	Dermal		LD50 estimated to be > 5,000 mg/kg
Silane Treated Glass	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Silane Treated Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Silane Treated Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Silane Treated Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Potassium Persulfate	Dermal	Rabbit	LD50 > 10,000 mg/kg
Potassium Persulfate	Ingestion	Rat	LD50 1,130 mg/kg
Potassium Persulfate	Inhalation-Dust/Mist (4 hours)	similar compound	LC50 > 5.1 mg/l

ATE = acute toxicity estimate

#### **Skin Corrosion/Irritation**

Name	Species	Value
Silane Treated Glass	Professional judgment	No significant irritation
Silane Treated Titanium Dioxide	Rabbit	No significant irritation
Potassium Persulfate	Rabbit	No significant irritation

#### **Serious Eye Damage/Irritation**

Name	Species	Value
Silane Treated Glass	Professional	No significant irritation

	judgement	
Silane Treated Titanium Dioxide	Rabbit	No significant irritation
Potassium Persulfate	Rabbit	No significant irritation

**Skin Sensitization**

Name	Species	Value
Silane Treated Titanium Dioxide	Human and animal	Not classified
Potassium Persulfate	Mouse	Sensitizing

**Respiratory Sensitization**

Name	Species	Value
Potassium Persulfate	Human	Sensitizing

**Germ Cell Mutagenicity**

Name	Route	Value
Silane Treated Titanium Dioxide	In Vitro	Not mutagenic
Silane Treated Titanium Dioxide	In vivo	Not mutagenic
Potassium Persulfate	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Silane Treated Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Silane Treated Titanium Dioxide	Inhalation	Rat	Carcinogenic

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

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

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

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Potassium Persulfate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Silane Treated Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Silane Treated Titanium Dioxide	Inhalation	pulmonary fibrosis	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

Not applicable

##### Health Hazards

Carcinogenicity

Respiratory or Skin Sensitization

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

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

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

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



**SECTION 16: Other information****NFPA Hazard Classification****Health:** 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address 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:** 05-6732-1**Version Number:** 20.03**Issue Date:** 01/27/23**Supersedes Date:** 11/16/22

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