



Safety Data Sheet

Copyright, 2021, 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.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 40-4251-1 | Version Number: | 1.06 |
| Issue Date: | 07/29/21 | Supersedes Date: | 03/08/21 |

SECTION 1: Identification

1.1. Product identifier

3M™ Filtek™ Universal Restorative - Shade Pink Opaquer

Product Identification Numbers

70-2014-0698-3, 70-2014-0708-0, 70-2014-0718-9, 70-2014-0728-8, 70-2014-0738-7, 70-2014-0748-6, 70-2014-1492-0, 70-2014-1502-6, 70-2014-1512-5, 70-2014-1522-4
7100186769, 7100186777, 7100186755, 7100186754, 7100187394, 7100187368, 7100235238, 7100235255, 7100235272, 7100235277

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Dental Restorative

1.3. Supplier's details

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

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

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

2.1. Hazard classification

Skin Sensitizer: Category 1B.

Carcinogenicity: Category 2.

2.2. Label elements

Signal word

Warning

Symbols

Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

May cause an allergic skin reaction.
Suspected of causing cancer by inhalation.

Precautionary Statements

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust.
Wear protective gloves.
Contaminated work clothing must not be allowed out of the workplace.

Response:

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.

Disposal:

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

Supplemental Information:

Although titanium dioxide is classified as a carcinogen, exposures associated with this health effect are not expected during normal, intended use of this product.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--------------------------------------|--------------|------------------------|
| Silane Treated Ceramic | 444758-98-9 | 40 - 70 Trade Secret * |
| Aromatic Urethane Dimethacrylate | 1431303-59-1 | 10 - 30 Trade Secret * |
| Diurethane Dimethacrylate (UDMA) | 72869-86-4 | 1 - 10 Trade Secret * |
| Ytterbium Fluoride (Ybf3) | 13760-80-0 | 1 - 10 Trade Secret * |
| 1,12-Dodecane Dimethacrylate (DDDMA) | 72829-09-5 | 1 - 5 Trade Secret * |
| Silane Treated Silica | 248596-91-0 | 1 - 5 Trade Secret * |
| Silane Treated Zirconia | None | 1 - 5 Trade Secret * |
| Water | 7732-18-5 | 1 - 5 Trade Secret * |
| Titanium Oxide | 13463-67-7 | < 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:

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

Eye Contact:

No need for first aid is anticipated.

If Swallowed:

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

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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

Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) 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

Store away from heat. Store away from oxidizing agents.

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 |
|----------------|------------|--------|--|--------------------------------|
| Titanium Oxide | 13463-67-7 | ACGIH | TWA:10 mg/m3 | A4: Not class. as human carcin |
| Titanium Oxide | 13463-67-7 | OSHA | TWA(as total dust):15 mg/m3 | |
| FLUORIDES | 13760-80-0 | ACGIH | TWA(as F):2.5 mg/m3 | A4: Not class. as human carcin |
| FLUORIDES | 13760-80-0 | OSHA | TWA(as F):2.5 mg/m3;TWA(as dust):2.5 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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties**Appearance**

| | |
|----------------|-------|
| Physical state | Solid |
| Color | Tooth |

Specific Physical Form:

Paste

Odor

Slight Acrylate

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**1.9 g/cm³**Specific Gravity**

1.9

Solubility in Water

Negligible

Solubility- non-water*No Data Available***Partition coefficient: n-octanol/ water***Not Applicable***Autoignition temperature***No Data Available***Decomposition temperature***No Data Available***Viscosity***No Data Available***SECTION 10: Stability and reactivity****10.1. Reactivity**

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

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

High shear and high temperature conditions

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products**Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient

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

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

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:

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

Eye Contact:

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

Ingestion:

May be harmful if swallowed.

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

Additional Health Effects:

Carcinogenicity:

Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

Contains a chemical or chemicals which can cause cancer.

| Ingredient | CAS No. | Class Description | Regulation |
|----------------|------------|-------------------------------|---|
| Titanium Oxide | 13463-67-7 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |

Toxicological Data

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

Acute Toxicity

| Name | Route | Species | Value |
|----------------------------------|-----------|------------------------|---|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Ingestion | | No data available; calculated ATE 2,000 - 5,000 mg/kg |
| Silane Treated Ceramic | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Silane Treated Ceramic | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Aromatic Urethane Dimethacrylate | Dermal | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Aromatic Urethane Dimethacrylate | Ingestion | Rat | LD50 > 2,000 mg/kg |

| | | | |
|--------------------------------------|--------------------------------|------------------------|--|
| Diurethane Dimethacrylate (UDMA) | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| Diurethane Dimethacrylate (UDMA) | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Ytterbium Fluoride (YbF3) | Dermal | Professional judgement | LD50 estimated to be > 5,000 mg/kg |
| Ytterbium Fluoride (YbF3) | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Silane Treated Silica | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Silane Treated Silica | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| 1,12-Dodecane Dimethacrylate (DDDMA) | Dermal | Professional judgement | LD50 estimated to be 2,000 - 5,000 mg/kg |
| 1,12-Dodecane Dimethacrylate (DDDMA) | Ingestion | similar compounds | LD50 2000-5000 mg/kg |
| Silane Treated Zirconia | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Silane Treated Zirconia | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Titanium Oxide | Dermal | Rabbit | LD50 > 10,000 mg/kg |
| Titanium Oxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 6.82 mg/l |
| Titanium Oxide | Ingestion | Rat | LD50 > 10,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|----------------------------------|------------------------|---------------------------|
| Silane Treated Ceramic | similar compounds | No significant irritation |
| Aromatic Urethane Dimethacrylate | In vitro data | No significant irritation |
| Silane Treated Silica | Professional judgement | No significant irritation |
| Silane Treated Zirconia | Rabbit | No significant irritation |
| Titanium Oxide | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|----------------------------------|------------------------|---------------------------|
| Silane Treated Ceramic | similar compounds | Mild irritant |
| Aromatic Urethane Dimethacrylate | In vitro data | No significant irritation |
| Ytterbium Fluoride (YbF3) | Professional judgement | Mild irritant |
| Silane Treated Silica | Professional judgement | No significant irritation |
| Silane Treated Zirconia | Rabbit | Mild irritant |
| Titanium Oxide | Rabbit | No significant irritation |

Skin Sensitization

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

| | | |
|----------------------------------|-------------------|----------------|
| Silane Treated Ceramic | similar compounds | Not classified |
| Diurethane Dimethacrylate (UDMA) | Guinea pig | Sensitizing |
| Titanium Oxide | 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 |
|----------------------------------|----------|--|
| Aromatic Urethane Dimethacrylate | In Vitro | Not mutagenic |
| Silane Treated Zirconia | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Titanium Oxide | In Vitro | Not mutagenic |
| Titanium Oxide | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|-------------------------|------------|-------------------------|--|
| Silane Treated Ceramic | Inhalation | similar compounds | Some positive data exist, but the data are not sufficient for classification |
| Silane Treated Zirconia | Inhalation | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Titanium Oxide | Ingestion | Multiple animal species | Not carcinogenic |
| Titanium Oxide | 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

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

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-------------------------|------------|--------------------|--|-------------------------|---------------------|-----------------------|
| Silane Treated Ceramic | Inhalation | pulmonary fibrosis | Not classified | similar compounds | NOAEL Not available | |
| Silane Treated Zirconia | Inhalation | pulmonary fibrosis | Not classified | Multiple animal species | NOAEL Not available | |
| Silane Treated Zirconia | Inhalation | respiratory system | Not classified | Human | NOAEL Not available | occupational exposure |
| Titanium Oxide | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.01 mg/l | 2 years |
| Titanium Oxide | 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 completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

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

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Carcinogenicity

Respiratory or Skin Sensitization

Additional TSCA Information

| Components | CAS No | Additional Information |
|-----------------------|-------------|-----------------------------------|
| Silane Treated Silica | 248596-91-0 | Allowed use(s): Coating additive. |

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

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

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

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

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address 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: | 40-4251-1 | Version Number: | 1.06 |
| Issue Date: | 07/29/21 | Supersedes Date: | 03/08/21 |

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