



Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

2721 3M™ ESPE™ RELYX™ CERAMIC PRIMER

Product Identification Numbers

70-2010-1748-3, 70-2010-2492-7, 70-2010-2990-0

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, Primer

Restrictions on use

For use only by dental professionals

1.3. Supplier's details

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

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

Flammable Liquid: Category 2.

Serious Eye Damage/Irritation: Category 2B.

Specific Target Organ Toxicity (central nervous system): Category 3.

Specific Target Organ Toxicity (repeated exposure): Category 2.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms**Hazard Statements**

Highly flammable liquid and vapor.

Causes eye irritation.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure:
respiratory system |**Precautionary Statements****Prevention:**

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

Take precautionary measures against static discharge.

Keep container tightly closed.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only in a well-ventilated area.

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

Keep container tightly closed.

Disposal:

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

2.3. Hazards not otherwise classified

None.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---------------|------------|------------------------|
| ETHYL ALCOHOL | 64-17-5 | 70 - 80 Trade Secret * |
| WATER | 7732-18-5 | 20 - 30 Trade Secret * |

| | | |
|------------------------------------|-----------|--------------------|
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | 2530-85-0 | < 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:

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

Skin Contact:

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

Eye Contact:

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

If Swallowed:

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide

Carbon dioxide

Condition

During Combustion

During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

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. 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

Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. 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 using non-sparking tools. Place in a metal 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store away from heat. Store away from acids. 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 |
|-------------------|-------------------|---------------|--------------------------|------------------------------|
| ETHYL ALCOHOL | 64-17-5 | OSHA | TWA:1900 mg/m3(1000 ppm) | |
| ETHYL ALCOHOL | 64-17-5 | ACGIH | STEL:1000 ppm | A3: Confirmed animal carcin. |

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

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: | Characteristic odor, Clear |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>Not Applicable</i> |
| Melting point | <i>Not Applicable</i> |
| Boiling Point | 180 °F |
| Flash Point | 70 °F [<i>Test Method: Closed Cup</i>] |
| Evaporation rate | <i>No Data Available</i> |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | 3.3 % [<i>Details: for Ethanol</i>] |
| Flammable Limits(UEL) | 19 % [<i>Details: for Ethanol</i>] |
| Vapor Pressure | 55 mmHg [<i>@ 25 °C</i>] |
| Vapor Density | <i>No Data Available</i> |
| Density | 0.86 g/ml |
| Specific Gravity | 0.86 [<i>Ref Std: WATER=1</i>] |
| Solubility in Water | Complete |
| 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 | 1.1 centipoise |
| Percent volatile | <i>No Data Available</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
Sparks and/or flames

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:

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

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

May cause target organ effects after inhalation.

Skin Contact:

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

Eye Contact:

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

Ingestion:

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

May cause target organ effects after ingestion.

Target Organ Effects:

Single exposure may cause:

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

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Additional Information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

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 |
| ETHYL ALCOHOL | Dermal | Rabbit | LD50 > 15,800 mg/kg |
| ETHYL ALCOHOL | Inhalation-Vapor (4 hours) | Rat | LC50 124.7 mg/l |
| ETHYL ALCOHOL | Ingestion | Rat | LD50 17,800 mg/kg |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | Dermal | Rabbit | LD50 > 20,900 mg/kg |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 2.28 mg/l |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | Ingestion | Rat | LD50 > 5,225 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|------------------------------------|---------|---------------------------|
| ETHYL ALCOHOL | Rabbit | No significant irritation |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | Rabbit | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|------------------------------------|---------|-------------------|
| ETHYL ALCOHOL | Rabbit | Moderate irritant |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | Rabbit | Mild irritant |

Skin Sensitization

| Name | Species | Value |
|------------------------------------|------------|--|
| ETHYL ALCOHOL | Human | Some positive data exist, but the data are not sufficient for classification |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | Guinea pig | Not sensitizing |

Respiratory Sensitization

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

Germ Cell Mutagenicity

| Name | Route | Value |
|------------------------------------|----------|--|
| ETHYL ALCOHOL | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| ETHYL ALCOHOL | In vivo | Some positive data exist, but the data are not sufficient for classification |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | In Vitro | Not mutagenic |
| METHACRYLOXYPROPYLTRIMETHOXYSILANE | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|---------------|-----------|-------------------------|--|
| ETHYL ALCOHOL | Ingestion | Multiple animal species | 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 |
|-------------------------------------|------------|--|---------|-----------------------|--------------------------------|
| ETHYL ALCOHOL | Inhalation | Not toxic to development | Rat | NOAEL 38 mg/l | during gestation |
| ETHYL ALCOHOL | Ingestion | Some positive developmental data exist, but the data are not sufficient for classification | Rat | NOAEL 5,200 mg/kg/day | prematuring & during gestation |
| METHACRYLOXYPROPYLTRIMETHOXYLSILANE | Ingestion | Some positive developmental data exist, but the data are not sufficient for classification | Rat | NOAEL 5,200 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 ALCOHOL | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | LOAEL 2.6 mg/l | 30 minutes |
| ETHYL ALCOHOL | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | LOAEL 9.4 mg/l | not available |
| ETHYL ALCOHOL | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL not available | |
| ETHYL ALCOHOL | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Dog | NOAEL 3,000 mg/kg | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-------------------------------------|------------|---|--|---------|-----------------------|-------------------|
| ETHYL ALCOHOL | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rabbit | LOAEL 124 mg/l | 365 days |
| ETHYL ALCOHOL | Inhalation | hematopoietic system immune system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 25 mg/l | 14 days |
| ETHYL ALCOHOL | Ingestion | liver | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 8,000 mg/kg/day | 4 months |
| ETHYL ALCOHOL | Ingestion | kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Dog | NOAEL 3,000 mg/kg/day | 7 days |
| METHACRYLOXYPROPYLTRIMETHOXYLSILANE | Dermal | skin | Some positive data exist, but the data are not sufficient for classification | Rabbit | NOAEL 2,100 mg/kg/day | 17 days |
| METHACRYLOXYPROPYLTRIMETHOXYLSILANE | Dermal | liver kidney and/or bladder | All data are negative | Rabbit | NOAEL 2,100 mg/kg/day | 17 days |
| METHACRYLOXYPROPYLTRIMETHOXYLSILANE | Inhalation | respiratory system | May cause damage to organs though prolonged or repeated exposure | Rat | LOAEL 0.05 mg/l | 14 weeks |
| METHACRYLOXYPROPYLTRIMETHOXYLSILANE | Inhalation | liver | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 0.244 mg/l | 14 weeks |
| METHACRYLOXYPROPYLTRIMETHOXYLSILANE | Inhalation | hematopoietic system eyes kidney and/or bladder | All data are negative | Rat | NOAEL 0.244 mg/l | 14 weeks |

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.

Incinerate in a permitted waste incineration facility.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

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

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: 2 Instability: 1 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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