SECTION 1: Identification

1.1. Product identifier
3M™ ESPE™ DIE ISOLATION

Product Identification Numbers
70-2011-0668-2

1.2. Recommended use and restrictions on use

Recommended use
Dental Product, Isolation liquid for dental models.

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
Flammable Liquid: Category 4.
Serious Eye Damage/Irritation: Category 2B.
Carcinogenicity: Category 2.

2.2. Label elements
Signal word
Warning
Symbols
Health Hazard |

Pictograms

Hazard Statements
Combustible liquid.
Causes eye irritation.
Suspected of causing cancer.

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Wear protective gloves and eye/face protection.
Wash thoroughly after handling.

Response:
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.
IF exposed or concerned: Get medical advice/attention.
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.

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

2% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTASSIUM SOAP OF NATURAL VEGETABLE FATTY ACIDS</td>
<td>Trade Secret*</td>
<td>&lt; 5 Trade Secret *</td>
</tr>
<tr>
<td>TRISODIUM NITRILOTRIACETATE</td>
<td>5064-31-3</td>
<td>&lt; 0.2 Trade Secret *</td>
</tr>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>80 - 95 Trade Secret *</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>64-17-5</td>
<td>1 - 10 Trade Secret *</td>
</tr>
</tbody>
</table>

*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 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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

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. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Contain spill. 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid prolonged or repeated skin contact. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing 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.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. 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.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>64-17-5</td>
<td>OSHA</td>
<td>TWA:1900 mg/m3(1000 ppm)</td>
<td></td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>64-17-5</td>
<td>ACGIH</td>
<td>STEL:1000 ppm</td>
<td>A3: Confirmed animal carcin.</td>
</tr>
</tbody>
</table>

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:** Liquid
- **Specific Physical Form:** Liquid
- **Odor, Color, Grade:** Slight alcoholic odor, clear, pale yellow
- **Odor threshold:** No Data Available
- **pH:** 10 - 12
- **Melting point:** Not Applicable
- **Boiling Point:** Not Applicable
- **Flash Point:** 74.2 ºC [Test Method: Closed Cup]
- **Evaporation rate:** No Data Available
- **Flammability (solid, gas):** Not Applicable
- **Flammable Limits (LEL):** No Data Available
- **Flammable Limits (UEL):** No Data Available
- **Vapor Pressure:** No Data Available
- **Vapor Density:** No Data Available
- **Density:** No Data Available
- **Specific Gravity:** Approximately 1 [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
- **Molecular weight:** No Data Available
- **Volatile Organic Compounds:** No Data Available
- **Percent volatile:** No Data Available
- **VOC Less H2O & Exempt Solvents:** 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
Sparks and/or flames

10.5. Incompatible materials
Strong acids
Strong oxidizing agents

10.6. Hazardous decomposition products
<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td></td>
</tr>
</tbody>
</table>
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:**
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 additional health effects (see below).

**Additional Health Effects:**

**Carcinogenicity:**
Contains a chemical or chemicals which can cause cancer.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>Class Description</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NITRILOTRIACID&amp;SLTS</td>
<td>5064-31-3</td>
<td>Grp. 2B: Possible human carc.</td>
<td>International Agency for Research on Cancer</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td>Rabbit</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 15,800 mg/kg</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Inhalation-Vapor (4 hours)</td>
<td>Rat</td>
<td>LC50 124.7 mg/l</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 17,800 mg/kg</td>
</tr>
<tr>
<td>TRISODIUM NITRILOTRIACETATE</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 1,100 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>

Serious Eye Damage/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Rabbit</td>
<td>Severe irritant</td>
</tr>
</tbody>
</table>

Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Human</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Respiratory Sensitization

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

Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>In vivo</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Ingestion</td>
<td>Multiple animal species</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

Reproductive Toxicity

Reproductive and/or Developmental Effects

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Inhalation</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 38 mg/l</td>
<td>during gestation</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Ingestion</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 5,200 mg/kg/day</td>
<td>premating &amp; during gestation</td>
</tr>
</tbody>
</table>

Target Organ(s)

Specific Target Organ Toxicity - single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Inhalation</td>
<td>central nervous system depression</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>LOAEL 2.6 mg/l</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>
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     Not classified     Dog     NOAEL 3,000 mg/kg

### Specific Target Organ Toxicity - repeated exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Inhalation</td>
<td>liver</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rabbit</td>
<td>LOAEL 124 mg/l</td>
<td>365 days</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Inhalation</td>
<td>hematopoietic system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 25 mg/l</td>
<td>14 days</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Ingestion</td>
<td>liver</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>LOAEL 8,000 mg/kg/day</td>
<td>4 months</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>Ingestion</td>
<td>kidney and/or bladder</td>
<td>Not classified</td>
<td>Dog</td>
<td>NOAEL 3,000 mg/kg/day</td>
<td>7 days</td>
</tr>
</tbody>
</table>

### 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.

Incinerate in a permitted waste incineration facility.

**EPA Hazardous Waste Number (RCRA): D035 (Methyl ethyl ketone)**

### 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:

<table>
<thead>
<tr>
<th>Physical Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable (gases, aerosols, liquids, or solids)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
</tr>
<tr>
<td>Serious eye damage or eye irritation</td>
</tr>
</tbody>
</table>

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.

The components of this product are in compliance with the chemical notification requirements of TSCA.

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: 2 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: 16-3973-1 Version Number: 9.01
Issue Date: 01/17/18 Supercedes Date: 02/25/16

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