SECTION 1: Identification

1.1. Product identifier
3M™ ESPE™ RELYX™ LUTING CEMENT LIQUID  3505L & 3515L

Product Identification Numbers
70-2010-2502-3, 70-2010-2674-0, 70-2010-2698-9, 70-2010-3120-3

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

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
Serious Eye Damage/Irritation: Category 2B.
Skin Sensitizer: Category 1.

2.2. Label elements
Signal word
Warning
Symbols
Exclamation mark |

Pictograms

Hazard Statements
Causes eye irritation.
May cause an allergic skin reaction.

Precautionary Statements

Prevention:
Wear protective gloves.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

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

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

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>WATER</td>
<td>7732-18-5</td>
<td>30 - 40</td>
</tr>
<tr>
<td>COPOLYMER OF ACRYLIC AND ITACONIC ACIDS</td>
<td>25948-33-8</td>
<td>30 - 40</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>868-77-9</td>
<td>25 - 35</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>141-78-6</td>
<td>&lt; 2</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:
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 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
<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
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.  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
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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
A no-touch technique is recommended.  If skin contact occurs, wash skin with soap and water.  Acrylates may penetrate commonly-used gloves.  If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.  Do not get in eyes, on skin, or on clothing.  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.

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

No special storage requirements.

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**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 ACETATE</td>
<td>141-78-6</td>
<td>OSHA</td>
<td>TWA:1400 mg/m³(400 ppm)</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>141-78-6</td>
<td>ACGIH</td>
<td>TWA:400 ppm</td>
<td></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.

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**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 sweet odor, Clear to slightly yellow
- **Odor threshold:** No Data Available
- **pH:** 2.2 - 3.2
- **Melting point:** Not Applicable
- **Boiling Point:** No Data Available
- **Flash Point:** 104 °C [Test Method: Tagliabue Closed Cup]
- **Evaporation rate:** No Data Available
Flammability (solid, gas) Not Applicable
Flammable Limits(LEL) Not Applicable
Flammable Limits(UEL) Not Applicable
Vapor Pressure <=16 psia [@ 131.0 °F]
Vapor Density No Data Available
Density 1.2 g/ml
Specific Gravity 1.2 [Ref Std: WATER=1]
Solubility in Water Complete
Solubility- non-water No Data Available
Partition coefficient: n-octanol/ water Not Applicable
Autoignition temperature No Data Available
Decomposition temperature No Data Available
Viscosity 175 - 225 centistoke
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 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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td>None known.</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.
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. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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.

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>No data available; calculated ATE &gt; 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>COPOLYMER OF ACRYLIC AND ITACONIC ACIDS</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>COPOLYMER OF ACRYLIC AND ITACONIC ACIDS</td>
<td>Dermal</td>
<td>similar health hazards</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Inhalation-Vapor (4 hours)</td>
<td>Rat</td>
<td>LC50 70.5 mg/l</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 5,620 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>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Rabbit</td>
<td>Minimal irritation</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Rabbit</td>
<td>Minimal 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>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Rabbit</td>
<td>Moderate irritant</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
</tbody>
</table>

### Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Human</td>
<td>Sensitizing</td>
</tr>
</tbody>
</table>
ETHYL ACETATE

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>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
</tbody>
</table>

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

<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>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Ingestion</td>
<td>Not classified for female reproduction</td>
<td>Rat</td>
<td>NOAEL 1,000 mg/kg</td>
<td>pre-mating &amp; during gestation</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Ingestion</td>
<td>Not classified for male reproduction</td>
<td>Rat</td>
<td>NOAEL 1,000 mg/kg</td>
<td>49 days</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE (HEMA)</td>
<td>Ingestion</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 1,000 mg/kg</td>
<td>pre-mating &amp; during gestation</td>
</tr>
</tbody>
</table>

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>COPOLYMER OF ACRYLIC AND ITACONIC ACIDS</td>
<td>Ingestion</td>
<td>nervous system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Inhalation</td>
<td>central nervous system depression</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Ingestion</td>
<td>central nervous system depression</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
</tbody>
</table>

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>COPOLYMER OF ACRYLIC AND ITACONIC ACIDS</td>
<td>Ingestion</td>
<td>endocrine system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 200 mg/kg</td>
<td>28 days</td>
</tr>
<tr>
<td>COPOLYMER OF ACRYLIC AND ITACONIC ACIDS</td>
<td>Ingestion</td>
<td>heart</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 2,000 mg/kg</td>
<td>28 days</td>
</tr>
</tbody>
</table>

Target Organ(s)
<table>
<thead>
<tr>
<th>Substance</th>
<th>Route</th>
<th>System</th>
<th>Classification</th>
<th>Species</th>
<th>Endpoint</th>
<th>Concentration</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ACETATE</td>
<td>Inhalation</td>
<td>Endocrine system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 0.043 mg/l</td>
<td>90 days</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Inhalation</td>
<td>Hematopoietic system</td>
<td>Not classified</td>
<td>Rabbit</td>
<td>LOAEL 16 mg/l</td>
<td>40 days</td>
<td></td>
</tr>
<tr>
<td>ETHYL ACETATE</td>
<td>Ingestion</td>
<td>Hematopoietic system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 3,600 mg/kg/day</td>
<td>90 days</td>
<td></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.

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**
Serious eye damage or eye irritation

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.

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Issue Date:  01/17/18  Supercedes Date:  02/25/16

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