SECTION 1: Identification

1.1. Product identifier
3303FG 3M™ VITREMER GLASS IONOMER FINISHING GLOSS

Product Identification Numbers

<table>
<thead>
<tr>
<th>ID Number</th>
<th>UPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE-F100-0083-0</td>
<td>70-2010-1335-9</td>
</tr>
<tr>
<td>70-2010-8917-7</td>
<td>70-2014-1074-6</td>
</tr>
</tbody>
</table>

7000030407, 7000030660, 7100140840

1.2. Recommended use and restrictions on use

Recommended use
Dental Product, Liner material

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 Damages/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:
Avoid breathing dust/fume/gas/mist/vapors/spray.
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>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>109-16-0</td>
<td>40 - 60</td>
<td>Trade Secret *</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>1565-94-2</td>
<td>40 - 60</td>
<td>Trade Secret *</td>
</tr>
<tr>
<td>Triphenylantimony</td>
<td>603-36-1</td>
<td>&lt; 1</td>
<td>Trade Secret *</td>
</tr>
<tr>
<td>4-(Dimethylamino)-Benzeneethanol</td>
<td>50438-75-0</td>
<td>&lt; 0.5</td>
<td>Trade Secret *</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>123-31-9</td>
<td>&lt; 0.1</td>
<td>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:  
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  
Use a fire fighting agent suitable for the surrounding fire.

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. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up  
Contain spill. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. 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. Avoid breathing dust/fume/gas/mist/vapors/spray. 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. Do not get in eyes.

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.

<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>Hydroquinone</td>
<td>123-31-9</td>
<td>ACGIH</td>
<td>TWA:1 mg/m3</td>
<td>A3: Confirmed animal carcin., Dermal Sensitizer</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>123-31-9</td>
<td>OSHA</td>
<td>TWA:2 mg/m3</td>
<td></td>
</tr>
<tr>
<td>ANTIMONY COMPOUNDS</td>
<td>603-36-1</td>
<td>ACGIH</td>
<td>TWA(as Sb):0.5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>ANTIMONY COMPOUNDS</td>
<td>603-36-1</td>
<td>OSHA</td>
<td>TWA(as Sb):0.5 mg/m3</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.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Appearance
- Physical state: Liquid
- Color: Transparent Yellow

Specific Physical Form:
- Liquid

Odor
- Acrylate

Odor threshold
- No Data Available

pH
- Not Applicable

Melting point
- Not Applicable

Boiling Point
- Not Applicable

Flash Point
- No flash point

Evaporation rate
- No Data Available

Flammability (solid, gas)
- Not Applicable

Flammable Limits (LEL)
- No Data Available

Flammable Limits (UEL)
- No Data Available

Vapor Pressure
- <=16 psia [@ 131 °F]

Vapor Density
- No Data Available

Density
- No Data Available

Specific Gravity
- 1.14  [Ref Std: WATER=1]

Solubility in Water
- Nil

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
- 125 - 225 centistoke

Molecular weight
- No Data Available

Volatile Organic Compounds
- 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></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:**
This product may have a characteristic odor; however, no adverse health effects are anticipated.

**Skin Contact:**
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. 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.

<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></td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Dermal</td>
<td>Professional judgement</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 10,837 mg/kg</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>Dermal</td>
<td>Professional judgement</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 11,700 mg/kg</td>
</tr>
<tr>
<td>Triphenylantimony</td>
<td>Ingestion</td>
<td></td>
<td>LC50 estimated to be 1 - 5 mg/l</td>
</tr>
<tr>
<td>Triphenylantimony</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 82.5 mg/kg</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 4,800 mg/kg</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 302 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>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Guinea pig</td>
<td>Mild irritant</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Triphenylantimony</td>
<td>Rabbit</td>
<td>Minimal irritation</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Human and animal</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>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Professio nal judgement</td>
<td>Moderate irritant</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>In vitro data</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Triphenylantimony</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Human</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

### Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Human and animal</td>
<td>Sensitizing</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>Mouse</td>
<td>Not classified</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Guinea pig</td>
<td>Sensitizing</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>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>In Vitro</td>
<td>Not mutagenal</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Hydroquinone</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>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Dermal</td>
<td>Mouse</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Dermal</td>
<td>Mouse</td>
<td>Not carcinogenic</td>
</tr>
<tr>
<td>Hydroquinone</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>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Ingestion</td>
<td>Not classified for female reproduction</td>
<td>Mouse</td>
<td>NOAEL 1</td>
<td>1 generation</td>
</tr>
<tr>
<td>Triethylene Glycol Dimethacrylate</td>
<td>Ingestion</td>
<td>Not classified for male reproduction</td>
<td>Mouse</td>
<td>NOAEL 1</td>
<td>1 generation</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>Hydroquinone</td>
<td>Ingestion</td>
<td>nervous system</td>
<td>May cause damage to organs</td>
<td>Rat</td>
<td>NOAEL Not available</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Ingestion</td>
<td>kidney and/or bladder</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 400 mg/kg</td>
<td>Not applicable</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>Triethylene Glycol Dimethacrylate (TEGDMA)</td>
<td>Dermal</td>
<td>kidney and/or bladder</td>
<td>blood</td>
<td>Not classified</td>
<td>Mouse</td>
<td>NOAEL 833 mg/kg/day</td>
</tr>
<tr>
<td>Bisphenol A Diglycidyl Ether Dimethacrylate (BISGMA)</td>
<td>Ingestion</td>
<td>endocrine system</td>
<td>hematopoietic system</td>
<td>liver</td>
<td>heart</td>
<td>skin</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Ingestion</td>
<td>blood</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL Not available</td>
<td>40 days</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Ingestion</td>
<td>bone marrow</td>
<td>liver</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL Not available</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Ingestion</td>
<td>kidney and/or bladder</td>
<td>Not classified</td>
<td>Rat</td>
<td>LOAEL 50 mg/kg/day</td>
<td>15 months</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>Ocular</td>
<td>eyes</td>
<td>Not classified</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>occupational exposure</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 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**
Respiratory or Skin Sensitization
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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