SECTION 1: Identification

1.1. Identification
Product form : Mixture
Product name : Choice 2/eCement

1.2. Recommended use and restrictions on use
Use of the substance/mixture : For RX only

1.3. Supplier
Manufacturer
Bisco, Inc.
1100 W. Irving Park Rd.
Schaumburg, IL 60193
T 847.534.6000 - F 847.891.5049
sales@bisco.com - www.bisco.com

1.4. Emergency telephone number
Emergency number : CHEMTREC - 24-Hour Hazmat Emergency Communications Center
Domestic: 1-800-424-9300 Outside the U.S.: 1-703-527-3887, collect calls accepted

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Skin corrosion/irritation Category 2 H315 Causes skin irritation
Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation
Skin sensitization, Category 1 H317 May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements
GHS-US labeling
Hazard pictograms (GHS-US) :

Hazard statements (GHS-US) : H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

Precautionary statements (GHS-US) : P261 - Avoid breathing vapors
P264 - Wash hands thoroughly after handling
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear eye protection, face protection, protective gloves
P302+P352 - If on skin: Wash with plenty of Wash hands and other exposed areas with soap and water before leaving work
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation persists: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P363 - Wash contaminated clothing before reuse
P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards which do not result in classification
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable
SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urethane Dimethacrylate</td>
<td>(CAS-No.) Proprietary</td>
<td>5-10</td>
<td>Skin Irrit. 2, H315, Eye Irrit. 2B, H320, STOT SE 3, H336</td>
</tr>
<tr>
<td>BisGMA</td>
<td>(CAS-No.) 1565-94-2</td>
<td>5-10</td>
<td>Skin Irrit. 2, H315, Eye Irrit. 2B, H320, Skin Sens. 1, H317</td>
</tr>
<tr>
<td>Tetrahydrofurfuryl Methacrylate</td>
<td>(CAS-No.) 2455-24-5</td>
<td>1-5</td>
<td>Flam. Liq. 4, H227, Skin Irrit. 2, H315, Eye Irrit. 2, H319, STOT SE 3, H335, Aquatic Acute 3, H402</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs, get medical advice/attention.
First-aid measures after eye contact: 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.
First-aid measures after ingestion: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact: Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


5.2. Specific hazards arising from the chemical

Reactivity: The product is non-reactive under normal conditions of use, storage, and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist, vapors.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Mechanically recover the product.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing mist, vapors.

Hygiene measures: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Control parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urethane Dimethacrylate (Proprietary)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Tetrahydrofurfuryl Methacrylate (2455-24-5)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>BisGMA (1565-94-2)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

**Hand protection:**
Protective gloves

**Eye protection:**
Safety glasses

**Skin and body protection:**
Wear suitable protective clothing

**Respiratory protection:**
In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Paste</td>
</tr>
<tr>
<td>Color</td>
<td>Tooth colored</td>
</tr>
<tr>
<td>Odor</td>
<td>Acrylic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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**Choice 2/eCement**  
*Safety Data Sheet*

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Relative density
- Not applicable

### Solubility
- No data available

### Log Pow
- No data available

### Auto-ignition temperature
- Not applicable

### Decomposition temperature
- No data available

### Viscosity, kinematic
- Not applicable

### Viscosity, dynamic
- No data available

### Explosion limits
- Not applicable

### Explosive properties
- No data available

### Oxidizing properties
- No data available

#### 9.2. Other information

No additional information available

---

**SECTION 10: Stability and reactivity**

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

---

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

**Acute toxicity**
- Not classified

### Urethane Dimethacrylate (Proprietary)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>N/A</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>N/A</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>N/A</td>
</tr>
<tr>
<td>LC50 inhalation rat (ppm)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
- Causes skin irritation.

**Serious eye damage/irritation**
- Causes serious eye irritation.

**Respiratory or skin sensitization**
- May cause an allergic skin reaction.

**Germ cell mutagenicity**
- Not classified

**Carcinogenicity**
- Not classified

### Urethane Dimethacrylate (Proprietary)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>4 - Probably not carcinogenic to humans</td>
</tr>
</tbody>
</table>

**Reproductive toxicity**
- Not classified

**Specific target organ toxicity – single exposure**
- Not classified

### Urethane Dimethacrylate (Proprietary)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAEL (oral,rat)</td>
<td>N/A mg/kg body weight</td>
</tr>
<tr>
<td>LOAEL (dermal,rat/rabbit)</td>
<td>N/A mg/kg body weight</td>
</tr>
<tr>
<td>LOAEC (inhalation,rat,gas)</td>
<td>N/A ppmV/4h</td>
</tr>
<tr>
<td>LOAEC (inhalation,rat,vapour )</td>
<td>N/A mg/l/4h</td>
</tr>
<tr>
<td>LOAEC (inhalation,rat,dust/mist/fume)</td>
<td>N/A mg/l/4h</td>
</tr>
</tbody>
</table>
Specific target organ toxicity – repeated exposure: Not classified

**Urethane Dimethacrylate (Proprietary)**

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>LOAEL (oral, rat, 90 days)</th>
<th>LOAEL (dermal, rat/rabbit, 90 days)</th>
<th>LOAEC (inhalation, rat, gas, 90 days)</th>
<th>LOAEC (inhalation, rat, vapour, 90 days)</th>
<th>LOAEC (inhalation, rat, dust/mist/fume, 90 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A mg/kg bodyweight/day</td>
<td>N/A mg/kg bodyweight/day</td>
<td>N/A ppmV/6h/day</td>
<td>N/A mg/l/6h/day</td>
<td>N/A mg/l/6h/day</td>
</tr>
</tbody>
</table>

Aspiration hazard: Not classified

Symptoms/effects after skin contact: Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact: Eye irritation.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

**Tetrahydrofurfuryl Methacrylate (2455-24-5)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>34.7 mg/l (LC50; 96 h; Pimephales promelas)</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

**Tetrahydrofurfuryl Methacrylate (2455-24-5)**

Persistence and degradability: Biodegradability in water: no data available. No (test)data on mobility of the substance available.

**12.3. Bioaccumulative potential**

**Tetrahydrofurfuryl Methacrylate (2455-24-5)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>1.3</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
</tbody>
</table>

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

Effect on the global warming: No known effects from this product.

GWPmix comment: No known effects from this product.

**SECTION 13: Disposal considerations**

**13.1. Disposal methods**

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

**SECTION 14: Transport information**

**Department of Transportation (DOT)**

In accordance with DOT

Other information: No supplementary information available.

**TDG**

**Transport by sea**

**Air transport**

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SECTION 15: Regulatory information

15.1. US Federal regulations

Tetrahydrofurfuryl Methacrylate (2455-24-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations
No additional information available

SECTION 16: Other information

Revision date:

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H227</th>
<th>Combustible liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H320</td>
<td>Causes eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.