SECTION 1: Identification

1.1. Identification
Product form : Mixture
Product name : Bonding Resin Part A (with and without Fluoride)

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

1.3. Supplier
Manufacturer:
Reliance Orthodontic Products, Inc. 1540 West Thorndale Ave.
Itasca, IL 60143 USA
630-773-4009, during normal business hours
www.RelianceOrthodontics.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 water and soap and water
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 occurs: Get medical advice/attention.
P337+P313 - If eye 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
Bonding Resin Part A (with and without Fluoride)
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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>BisGMA</td>
<td>(CAS-No.) 1565-94-2</td>
<td>57.5 - 60</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Skin Sens. 1, H317</td>
</tr>
<tr>
<td>2',2'-(4-Methylphenyl)Imino)Bisethanol</td>
<td>(CAS-No.) 3077-12-1</td>
<td>1.8 - 1.92</td>
<td>Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318</td>
</tr>
<tr>
<td>2,4-Dihydroxybenzophenone</td>
<td>(CAS-No.) 131-56-6</td>
<td>1.152 - 1.2</td>
<td>Eye Irrit. 2, H319</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: Take up liquid spill into absorbent material.
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 parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>BisGMA (1565-94-2)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2,4-Dihydroxybenzophenone (131-56-6)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2,2'-(4-Methylphenyl)iminobisethanol (3077-12-1)</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>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Pale yellow</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>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</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>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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### 9.2. Other information

No additional information available

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### 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.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**

: Not classified

<table>
<thead>
<tr>
<th>Substance</th>
<th>Route of exposure</th>
<th>LD50/ATE US (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dihydroxybenzophenone (131-56-6)</td>
<td>Oral rat</td>
<td>6100/6100</td>
</tr>
<tr>
<td>2,2'--[(4-Methylphenyl)iminol]Bisethanol (3077-12-1)</td>
<td>Oral rat, Literature study</td>
<td>960/960</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

**Reproductive toxicity**

: Not classified

**Specific target organ toxicity – single exposure**

: Not classified

**Specific target organ toxicity – repeated exposure**

: Not classified

**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.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Toxicity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2'-(4-Methylphenyl)iminobisethanol (3077-12-1)</td>
<td>LC50 fish 1 &gt; 100 mg/l (96 h, Brachydanio rerio, Literature study)</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Persistence and degradability</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dihydroxybenzophenone (131-56-6)</td>
<td>Biodegradability in water: no data available.</td>
<td></td>
</tr>
<tr>
<td>2,2'-(4-Methylphenyl)iminobisethanol (3077-12-1)</td>
<td>Biodegradability in water: no data available.</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Bioaccumulative potential</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dihydroxybenzophenone (131-56-6)</td>
<td>No bioaccumulation data available.</td>
<td></td>
</tr>
<tr>
<td>2,2'-(4-Methylphenyl)iminobisethanol (3077-12-1)</td>
<td>Log Pow 1.09 (Experimental value)</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
</tbody>
</table>

#### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Substance</th>
<th>Ecology - soil</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2'-(4-Methylphenyl)iminobisethanol (3077-12-1)</td>
<td>No (test)data on mobility of the substance available.</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.5. Other adverse effects
No additional information available

### 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.

**Transportation of Dangerous Goods**

**Transport by sea**

**Air transport**

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listed on the United States TSCA (Toxic Substances Control Act) inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dihydroxybenzophenone (131-56-6)</td>
<td></td>
</tr>
<tr>
<td>2,2'-(4-Methylphenyl)iminobisethanol (3077-12-1)</td>
<td></td>
</tr>
</tbody>
</table>
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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

: 

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<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>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H320</td>
<td>Causes eye irritation</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.