Plastic Conditioner
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 1/22/2018 Version: 9

SECTION 1: Identification

1.1. Identification
Product form : Mixture
Product name : Plastic Conditioner

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
Flammable liquids Category 2 H225 Highly flammable liquid and vapor
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
Specific target organ toxicity (single exposure) Category 3 H335 May cause respiratory irritation
Hazardous to the aquatic environment - Acute Hazard Category 1 H400 Very toxic to aquatic life
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) : H225 - Highly flammable liquid and vapor
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life

Precautionary statements (GHS-US) : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P261 - Avoid breathing vapors
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing must not be allowed out of the workplace
P273 - Avoid release to the environment
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P280 - Wear eye protection, face protection, protective gloves
P302+P352 - If on skin: Wash with plenty of soap and water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER, a doctor if you feel unwell
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
P370+P378 - In case of fire: Use dry sand, nitrogen, foam, extinguishing powder to extinguish
P391 - Collect spillage
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
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>
</table>
| Methyl Methacrylate, monomer, inhibited  | (CAS-No.) 80-62-6  | 50 - 75 | Flam. Liq. 2, H225  
|                                          |                    |     | Skin Irrit. 2, H315  
|                                          |                    |     | Skin Sens. 1, H317  
|                                          |                    |     | STOT SE 3, H335  
|                                          |                    |     | Aquatic Acute 3, H402 |
| Isobutyl Methacrylate, stabilized        | (CAS-No.) 97-86-9  | 30 - 50 | Flam. Liq. 3, H226  
|                                          |                    |     | Skin Irrit. 2, H315  
|                                          |                    |     | Eye Irrit. 2, H319  
|                                          |                    |     | Skin Sens. 1, H317  
|                                          |                    |     | STOT SE 3, H335  
|                                          |                    |     | Aquatic Acute 1, H400 |

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 general: Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact: Rinse skin with water/shower. Remove/Take off immediately all 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 inhalation: May cause respiratory irritation.
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

Fire hazard: Highly flammable liquid and vapor.
Reactivity: Highly flammable liquid and vapor.

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. No open flames, no sparks, and no smoking. Avoid breathing mist, vapors. Avoid contact with skin and eyes.

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

For containment: Collect spillage.
Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
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: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapors. Avoid contact with skin and eyes.
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

Technical measures: Ground/bond container and receiving equipment.
Storage conditions: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Methyl Methacrylate, monomer, inhibited (80-62-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
</tr>
<tr>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Isobutyl Methacrylate, stabilized (97-86-9)

Not applicable

8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.
Environmental exposure controls: Avoid release to the environment.
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8.3. Individual protection measures/Personal protective equipment

**Hand protection:**
Protective gloves

**Eye protection:**
Protective goggles

**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>Clear liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</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</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>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
Highly flammable liquid and vapor.

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
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
### 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**

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 oral rat</th>
<th>LD50 dermal rabbit</th>
<th>LC50 inhalation rat (mg/l)</th>
<th>ATE US (vapors)</th>
<th>ATE US (dust, mist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Methacrylate, monomer, inhibited (80-62-6)</td>
<td>&gt; 6000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 7900 mg/kg bodyweight; Rat; Equivalent or similar to OECD 401; Weight of evidence; 8400 mg/kg bodyweight; Rat; Weight of evidence)</td>
<td>&gt; 7550 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; &gt;5000 mg/kg bodyweight; Rabbit; Experimental value)</td>
<td>27.5 mg/l/4h (Rat; Literature study)</td>
<td>27.5 mg/l/4h</td>
<td>27.5 mg/l/4h</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**

- May cause respiratory irritation.

**Specific target organ toxicity – repeated exposure**

- Not classified

**Aspiration hazard**

- Not classified

**Symptoms/effects after inhalation**

- May cause respiratory irritation.

**Symptoms/effects after skin contact**

- Irritation. May cause an allergic skin reaction.

**Symptoms/effects after eye contact**

- Eye irritation.

### 11.2. Germ cell mutagenicity

- Not classified

### 11.3. Reproductive toxicity

- Not classified

### 11.4. Specific target organ toxicity – single exposure

- May cause respiratory irritation.

### 11.5. Specific target organ toxicity – repeated exposure

- Not classified

### 11.6. Aspiration hazard

- Not classified

### 11.7. Symptoms/effects after inhalation

- May cause respiratory irritation.

### 11.8. Symptoms/effects after skin contact

- Irritation. May cause an allergic skin reaction.

### 11.9. Symptoms/effects after eye contact

- Eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecology - general**

- Very toxic to aquatic life.

**Methyl Methacrylate, monomer, inhibited (80-62-6)**

<table>
<thead>
<tr>
<th>Test</th>
<th>EC50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daphnia 1</td>
<td>69 mg/l (EC50; EPA OTS 797.1300; 48 h; Daphnia magna; Flow-through system; Fresh water; Experimental value)</td>
<td>191 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Static system; Fresh water; Experimental value)</td>
</tr>
</tbody>
</table>

**Isobutyl Methacrylate, stabilized (97-86-9)**

<table>
<thead>
<tr>
<th>Test</th>
<th>EC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daphnia 1</td>
<td>&gt; 130 mg/l (EC50; 48 h; Daphnia magna)</td>
</tr>
</tbody>
</table>

**Threshold limit algae 1**

- 16 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Fresh water)

### 12.2. Persistence and degradability

**Methyl Methacrylate, monomer, inhibited (80-62-6)**

- Readily biodegradable in water. No (test)data on mobility of the substance available. Photolysis in the air.
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**Methyl Methacrylate, monomer, inhibited (80-62-6)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>0.14 g O₂ /g substance</td>
</tr>
<tr>
<td>ThOD</td>
<td>1.9 g O₂ /g substance</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
<td>0.073</td>
</tr>
</tbody>
</table>

**Isobutyl Methacrylate, stabilized (97-86-9)**

Persistence and degradability: Readily biodegradable in water. Low potential for mobility in soil. Photolysis in the air.

12.3. Bioaccumulative potential

**Methyl Methacrylate, monomer, inhibited (80-62-6)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>2.97 - 3.5 (BCF)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>1.32 - 1.38 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
</tbody>
</table>

**Isobutyl Methacrylate, stabilized (97-86-9)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>64 (BCF)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>2.95 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C)</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

**Methyl Methacrylate, monomer, inhibited (80-62-6)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension</td>
<td>0.028 N/m (20 °C)</td>
</tr>
</tbody>
</table>

**Isobutyl Methacrylate, stabilized (97-86-9)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Koc</td>
<td>log Koc.OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method; 3.4; Experimental value; GLP</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste treatment methods</td>
<td>Dispose of contents/container in accordance with licensed collector's sorting instructions.</td>
</tr>
<tr>
<td>Additional information</td>
<td>Flammable vapors may accumulate in the container.</td>
</tr>
</tbody>
</table>

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport document description</td>
<td>UN1247 Methyl methacrylate monomer, stabilized, 3, II</td>
</tr>
<tr>
<td>UN-No.(DOT)</td>
<td>UN1247</td>
</tr>
<tr>
<td>Proper Shipping Name (DOT)</td>
<td>Methyl methacrylate monomer, stabilized</td>
</tr>
<tr>
<td>Class (DOT)</td>
<td>3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120</td>
</tr>
<tr>
<td>Packing group (DOT)</td>
<td>II - Medium Danger</td>
</tr>
<tr>
<td>Hazard labels (DOT)</td>
<td>3 - Flammable liquid</td>
</tr>
</tbody>
</table>

Dangerous for the environment: Yes
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Marine pollutant: Yes

DOT Packaging Non Bulk (49 CFR 173.xxx): 202
DOT Packaging Bulk (49 CFR 173.xxx): 242
DOT Special Provisions (49 CFR 172.102): IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 °F), or 130 kPa at 55 °C (1.3 bar at 131 °F) are authorized.
T4 - 2.65 178.274(d)(2) Normal............. 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx): 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 60 L

DOT Vessel Stowage Location: B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other: 40 - Stow “clear of living quarters”
Other information: No supplementary information available.

TDG

Transport by sea
Marine pollutant: Yes

Air transport
Transport document description (IATA): UN 1247, 3, ENVIRONMENTALLY HAZARDOUS
UN-No. (IATA): 1247
Class (IATA): 3 - Flammable Liquids

SECTION 15: Regulatory information

15.1. US Federal regulations
No additional information available

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
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## SECTION 16: Other information

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapor</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapor</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>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</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.