SAFETY DATA SHEET

1. Identification

Product identifier AL-GLAZE PRO GLAZING PUTTY PMP

Other means of identification

Recommended use Not available.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Liberty Bell Equipment Corp.
Address 810 N. Jefferson Ave.
St. Louis, MO 63106
United States

Telephone Information Contact 888-646-1400
Website www.finish-pro.com/default.aspx
E-mail mstevens@medcorp.com
Contact person Mark Stevens
Emergency phone number Emergency Contact 888-646-1400

2. Hazard(s) identification

Physical hazards Flammable liquids Category 3
Health hazards Acute toxicity, oral Category 3
Acute toxicity, dermal Category 4
Acute toxicity, inhalation Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Sensitization, respiratory Category 1
Sensitization, skin Category 1
Germ cell mutagenicity Category 1B
Carcinogenicity Category 1B
Reproductive toxicity (the unborn child) Category 2
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
Specific target organ toxicity, repeated exposure Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 3

OSHA defined hazards Not classified.

Label elements

Signal word Danger
Hazard statement Flammable liquid and vapor. Toxic if swallowed. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause genetic defects. May cause cancer. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Response

If swallowed: Immediately call a poison center/doctor. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. 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 exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage


Disposal

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

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

73.89% of the mixture consists of component(s) of unknown acute oral toxicity. 75.11% of the mixture consists of component(s) of unknown acute inhalation toxicity. 75.11% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 75.11% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene, monomer</td>
<td></td>
<td>100-42-5</td>
<td>20 to &lt;30</td>
</tr>
<tr>
<td>Talc</td>
<td></td>
<td>14807-96-6</td>
<td>10 to &lt;20</td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td></td>
<td>1317-65-3</td>
<td>5 to &lt;10</td>
</tr>
<tr>
<td>fiberous glass</td>
<td></td>
<td>65997-17-3</td>
<td>5 to &lt;10</td>
</tr>
<tr>
<td>Magnesium carbonate</td>
<td></td>
<td>546-93-0</td>
<td>5 to &lt;10</td>
</tr>
<tr>
<td>Silicon dioxide</td>
<td></td>
<td>7631-86-9</td>
<td>1 to &lt;5</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td></td>
<td>13463-67-7</td>
<td>1 to &lt;5</td>
</tr>
<tr>
<td>1,2,3-propanetriol</td>
<td></td>
<td>56-81-5</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>1,4-Benzoquinone</td>
<td></td>
<td>106-51-4</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>111-76-2</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>copper(II) phthalocyanine</td>
<td></td>
<td>147-14-8</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>light aromatic solvent naphtha</td>
<td></td>
<td>64742-95-6</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>Paraffin</td>
<td></td>
<td>8002-74-2</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>Silicon dioxide</td>
<td></td>
<td>14808-60-7</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>THPA</td>
<td></td>
<td>85-43-8</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>40 to &lt;50</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. Get medical advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information
Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

Methods and materials for containment and cleaning up

Environmental precautions

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Material name: AL-GLAZE PRO GLAZING PUTTY PMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>216 Version #: 01 Issue date: 01-06-2016</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3-propanetriol (CAS 56-81-5)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>1,4-Benzoquinone (CAS 106-51-4)</td>
<td>PEL</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>PEL</td>
<td>0.4 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Calcium carbonate (CAS 1317-65-3)</td>
<td>PEL</td>
<td>0.1 ppm</td>
<td></td>
</tr>
<tr>
<td>15 mg/m3</td>
<td></td>
<td>240 mg/m3</td>
<td></td>
</tr>
<tr>
<td>50 ppm</td>
<td></td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>15 mg/m3</td>
<td></td>
<td>Total dust.</td>
<td></td>
</tr>
</tbody>
</table>
### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium carbonate (CAS 546-93-0)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>PEL</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

### US. OSHA Table Z-2 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene, monomer (CAS 100-42-5)</td>
<td>200 ppm</td>
</tr>
</tbody>
</table>

### US. OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td>TWA</td>
<td>0.8 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Silicon dioxide (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.3 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td></td>
<td>0.1 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Silicon dioxide (CAS 14808-60-7)</td>
<td>TWA</td>
<td>2.4 mpcf</td>
<td></td>
</tr>
<tr>
<td>Talc (CAS 14807-96-6)</td>
<td>TWA</td>
<td>0.3 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 mpcf</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 mpcf</td>
<td></td>
</tr>
</tbody>
</table>

### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Benzoquinone (CAS 106-51-4)</td>
<td>TWA</td>
<td>0.1 ppm</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>copper(II) phthalocyanine (CAS 147-14-8)</td>
<td>TWA</td>
<td>1 mg/m3</td>
<td>Dust and mist.</td>
</tr>
<tr>
<td>Paraffin (CAS 8002-74-2)</td>
<td>TWA</td>
<td>0.2 mg/m3</td>
<td>Fume.</td>
</tr>
<tr>
<td>Silicon dioxide (CAS 14808-60-7)</td>
<td>TWA</td>
<td>2 mg/m3</td>
<td>Fume.</td>
</tr>
<tr>
<td>Styrene, monomer (CAS 100-42-5)</td>
<td>STEL</td>
<td>0.025 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Talc (CAS 14807-96-6)</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>2 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

### US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Benzoquinone (CAS 106-51-4)</td>
<td>TWA</td>
<td>0.4 mg/m3</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>TWA</td>
<td>0.1 ppm</td>
<td>24 mg/m3</td>
</tr>
<tr>
<td>Calcium carbonate (CAS 1317-65-3)</td>
<td>TWA</td>
<td>5 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>copper(II) phthalocyanine (CAS 147-14-8)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Total dust and mist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/m3</td>
<td>Dust and mist.</td>
</tr>
<tr>
<td>US. NIOSH: Pocket Guide to Chemical Hazards Components</td>
<td>Type</td>
<td>Value</td>
<td>Form</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>fiberous glass (CAS 65997-17-3)</td>
<td>TWA</td>
<td>3 fibers/cm³</td>
<td>Fiber.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 fibers/cm³</td>
<td>Dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>fibers, total dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Fiber, total</td>
</tr>
<tr>
<td>Magnesium carbonate (CAS 546-93-0)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Paraffin (CAS 8002-74-2)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Total</td>
</tr>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Fume.</td>
</tr>
<tr>
<td>Silicon dioxide (CAS 14808-60-7)</td>
<td>TWA</td>
<td>6 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Styrene, monomer (CAS 100-42-5)</td>
<td>STEL</td>
<td>0.05 mg/m³</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>215 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Talc (CAS 14807-96-6)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Respirable.</td>
</tr>
</tbody>
</table>

**Biological limit values**

<table>
<thead>
<tr>
<th>ACGIH Biological Exposure Indices Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>200 mg/g</td>
<td>Butoxyacetic acid (BAA), with hydrolysis</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
<tr>
<td>Styrene, monomer (CAS 100-42-5)</td>
<td>400 mg/g</td>
<td>Mandelic acid plus phenylglyoxylic acid</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>0.2 mg/l</td>
<td>Styrene</td>
<td>Venous blood</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

**Exposure guidelines**

**US - California OELs: Skin designation**
- 2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.
- Styrene, monomer (CAS 100-42-5) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**
- 2-Butoxyethanol (CAS 111-76-2) Skin designation applies.
- Styrene, monomer (CAS 100-42-5) Skin designation applies.

**US - Tennessee OELs: Skin designation**
- 2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**
- 2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**
- 2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**
- Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection**
- Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Other**
- Wear appropriate chemical resistant clothing.
Respiratory protection
Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance
Physical state: Liquid.
Form: Liquid. Paste
Color: Not available.
Odor: Not available.
Odor threshold: Not available.
pH: Not available.

Melting point/freezing point
-23.8 °F (-31 °C) estimated

Initial boiling point and boiling range
293 °F (145 °C) estimated

Flash point
93.9 °F (34.4 °C) estimated

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits
Flammability limit - lower (%): 1.1 % estimated
Flammability limit - upper (%): 6.1 % estimated
Explosive limit - lower (%): Not available.
Explosive limit - upper (%): Not available.

Vapor pressure
5.02 hPa estimated

Vapor density
Not available.

Relative density
Not available.

Solubility(ies)
Solubility (water): Not available.

Partition coefficient (n-octanol/water)
Not available.

Auto-ignition temperature
914 °F (490 °C) estimated

Decomposition temperature
Not available.

Viscosity
Not available.

Other information
Density: 8.00 lbs/gal
Explosive properties
Not explosive.
Flammability class
Flammable IC estimated
Oxidizing properties
Not oxidizing.
Percent volatile
24.15 % estimated
Specific gravity: 0.96
VOC
24.15 % estimated

10. Stability and reactivity
Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability
Material is stable under normal conditions.

 Possibility of hazardous reactions
Hazardous polymerization does not occur.
Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.


No hazardous decomposition products are known.

### 11. Toxicological information

**Information on likely routes of exposure**

**Inhalation**

Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact**

Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.

**Eye contact**

Causes serious eye irritation.

**Ingestion**

Toxic if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

**Information on toxicological effects**

**Acute toxicity**

Toxic if swallowed. Harmful if inhaled. Harmful in contact with skin. May cause respiratory irritation. May cause an allergic skin reaction.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Benzquinone (CAS 106-51-4)</td>
<td>Oral LD50 Rat</td>
<td>130 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>Oral LD50 Guinea pig</td>
<td>1.2 g/kg</td>
</tr>
<tr>
<td></td>
<td>Dermal LD50 Rabbit</td>
<td>400 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td></td>
</tr>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td>Oral LD50 Mouse</td>
<td>&gt; 15000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oral LD50 Rat</td>
<td>&gt; 22500 mg/kg</td>
</tr>
<tr>
<td>Styrene, monomer (CAS 100-42-5)</td>
<td>Oral LD50 Mouse</td>
<td>316 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inhalation LC50 Mouse</td>
<td>4940 ppm, 2 Hours</td>
</tr>
<tr>
<td></td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50</td>
<td>1 g/kg</td>
</tr>
<tr>
<td></td>
<td>Inhalation LC50</td>
<td>2770 ppm, 4 Hours</td>
</tr>
<tr>
<td></td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50</td>
<td>24 mg/l, 4 Hours</td>
</tr>
</tbody>
</table>
### THPA (CAS 85-43-8)

#### Acute

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5410 mg/kg</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

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

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

**Respiratory or skin sensitization**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin sensitization**
May cause an allergic skin reaction.

**Germ cell mutagenicity**
May cause genetic defects.

**Carcinogenicity**
May cause cancer.

### IARC Monographs. Overall Evaluation of Carcinogenicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Benzoquinone (CAS 106-51-4)</td>
<td>3 Not classifiable as to carcinogenicity to humans.</td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>3 Not classifiable as to carcinogenicity to humans.</td>
</tr>
<tr>
<td>Silicon dioxide (CAS 14808-60-7)</td>
<td>1 Carcinogenic to humans.</td>
</tr>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td>3 Not classifiable as to carcinogenicity to humans.</td>
</tr>
<tr>
<td>Styrene, monomer (CAS 100-42-5)</td>
<td>2B Possibly carcinogenic to humans.</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>2B Possibly carcinogenic to humans.</td>
</tr>
</tbody>
</table>

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

### US. National Toxicology Program (NTP) Report on Carcinogens

- Silicon dioxide (CAS 14808-60-7) Known To Be Human Carcinogen.
- Styrene, monomer (CAS 100-42-5) Reasonably Anticipated to be a Human Carcinogen.

**Reproductive toxicity**
Suspected of damaging the unborn child.

**Specific target organ toxicity - single exposure**
May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**
Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard**
Not an aspiration hazard.

**Chronic effects**
Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

### 12. Ecological information

**Ecotoxicity**
Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3-propanetriol (CAS 56-81-5)</td>
<td>Aquatic</td>
<td>Rainbow trout,donaldson trout</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>(Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>1,4-Benzoquinone (CAS 106-51-4)</td>
<td>Aquatic</td>
<td>Fathead minnow (Pimephales promelas)</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>Inland silverside (Menidia beryllina)</td>
</tr>
<tr>
<td>2-Butoxyethanol (CAS 111-76-2)</td>
<td>Aquatic</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td>Crustacea</td>
<td>Sheephead minnow (Cyprinodon variegatus)</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td></td>
</tr>
</tbody>
</table>
Components Test Results

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic</td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**

No data is available on the degradability of this product.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Partition coefficient n-octanol / water (log Kow)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3-propanetriol</td>
</tr>
<tr>
<td>1,4-Benzoquinone</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
</tr>
<tr>
<td>Styrene, monomer</td>
</tr>
</tbody>
</table>

**Mobility in soil**

No data available.

**Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. **Disposal considerations**

**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**

Dispose in accordance with all applicable regulations.

**Hazardous waste code**

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. **Transport information**

**DOT**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1866</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Resin Solution</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Label(s)</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
</tr>
<tr>
<td>Special provisions</td>
<td>B1, B52, IB3, T4, TP1, TP29</td>
</tr>
<tr>
<td>Packaging exceptions</td>
<td>150</td>
</tr>
<tr>
<td>Packaging non bulk</td>
<td>203</td>
</tr>
<tr>
<td>Packaging bulk</td>
<td>242</td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1866</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Resin Solution</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
</tr>
<tr>
<td>ERG Code</td>
<td>3L</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
</tr>
</tbody>
</table>
Other information

Passenger and cargo aircraft: Allowed with restrictions.
Cargo aircraft only: Allowed with restrictions.

IMDG

UN number: UN1866
UN proper shipping name: Resin Solution
Transport hazard class(es):
- Class: 3
- Subsidiary risk: -
- Packing group: III
Environmental hazards:
- Marine pollutant: No.
- EmS: F-E, S-E

Special precautions for user:
Read safety instructions, SDS and emergency procedures before handling.
Not established.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

DOT

FLAMMABLE LIQUID

3

IATA; IMDG

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
- 1,4-Benzoquinone (CAS 106-51-4) Listed.
- 2-Butoxyethanol (CAS 111-76-2) Listed.
- copper(II) phthalocyanine (CAS 147-14-8) Listed.
- Styrene, monomer (CAS 100-42-5) Listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.
Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene, monomer</td>
<td>100-42-5</td>
<td>20 to &lt;30</td>
</tr>
<tr>
<td>1,4-Benzoquinone</td>
<td>106-51-4</td>
<td>0.1 to &lt;1</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>0.1 to &lt;1</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
1,4-Benzoquinone (CAS 106-51-4)
Styrene, monomer (CAS 100-42-5)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
1,2,3-propanetriol (CAS 56-81-5) Not listed.
Styrene, monomer (CAS 100-42-5) Not listed.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
2-Butoxyethanol (CAS 111-76-2)
light aromatic solvent naphtha (CAS 64742-95-6)
Silicon dioxide (CAS 14808-60-7)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
THPA (CAS 85-43-8)
Titanium dioxide (CAS 13463-67-7)

US. Massachusetts RTK - Substance List
1,2,3-propanetriol (CAS 56-81-5)
1,4-Benzooquinone (CAS 106-51-4)
2-Butoxyethanol (CAS 111-76-2)
Calcium carbonate (CAS 1317-65-3)
fiberous glass (CAS 65997-17-3)
Magnesium carbonate (CAS 546-93-0)
Paraffin (CAS 8002-74-2)
Silicon dioxide (CAS 14808-60-7)
Silicon dioxide (CAS 7631-86-9)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
Titanium dioxide (CAS 13463-67-7)

US. New Jersey Worker and Community Right-to-Know Act
1,2,3-propanetriol (CAS 56-81-5)
1,4-Benzooquinone (CAS 106-51-4)
2-Butoxyethanol (CAS 111-76-2)
Calcium carbonate (CAS 1317-65-3)
copper(II) phthalocyanine (CAS 147-14-8)
fiberous glass (CAS 65997-17-3)
Magnesium carbonate (CAS 546-93-0)
Paraffin (CAS 8002-74-2)
Silicon dioxide (CAS 14808-60-7)
Silicon dioxide (CAS 7631-86-9)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
THPA (CAS 85-43-8)
Titanium dioxide (CAS 13463-67-7)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,2,3-propanetriol (CAS 56-81-5)
1,4-Benzophenone (CAS 106-51-4)
2-Butoxyethanol (CAS 111-76-2)
Calcium carbonate (CAS 1317-65-3)
Fiberous glass (CAS 65997-17-3)
Paraffin (CAS 8002-74-2)
Silicon dioxide (CAS 14808-60-7)
Silicon dioxide (CAS 7631-86-9)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
Titanium dioxide (CAS 13463-67-7)

**US. Rhode Island RTK**

1,4-Benzophenone (CAS 106-51-4)
2-Butoxyethanol (CAS 111-76-2)
Styrene, monomer (CAS 100-42-5)

**US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listed date</th>
<th>Carcinogenic substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide (CAS 14808-60-7)</td>
<td>October 1, 1988</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>September 2, 2011</td>
<td></td>
</tr>
</tbody>
</table>

**International Inventories**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

** Issue date: 01-06-2016**

**Version #: 01**

**HMIS® ratings**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3*</td>
</tr>
<tr>
<td>Flammability</td>
<td>3</td>
</tr>
<tr>
<td>Physical hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

**NFPA ratings**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>3</td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
</tr>
</tbody>
</table>

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. **THE INFORMATION CONTAINED HEREIN IS BASED ON DATA BELIEVED TO BE RELIABLE AND THE MANUFACTURER DISCLAIMS ANY LIABILITY INCURRED FROM THE USE OR RELIANCE UPON THE SAME. THE INFORMATION GIVEN IS DESIGNED ONLY AS A GUIDANCE FOR SAFE HANDLING, USE, PROCESSING, STORAGE, TRANSPORTATION, DISPOSAL AND RELEASE AND IS NOT TO BE CONSIDERED A WARRANTY OR QUALITY SPECIFICATION.** The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. **This safety information is not a license to use this material as claimed by any patents of third parties. The user alone must finally determine whether a contemplated use of this material will infringe any such patents, and for obtaining any required licenses.**
SAFETY DATA SHEET

1. Identification
Product identifier AL-GLAZE PRO GLAZING PUTTY BLUE HARDENER PASTE
Other means of identification
   Product Code 216 HARDENER
Recommended use Cream Hardener, Polymer Reaction Catalyst
Manufacturer/Importer/Supplier/Distributor information
   Manufacturer
      Company name Liberty Bell Equipment Corp.
      Address 810 N. Jefferson Ave.
                 St. Louis, MO 63106
                 United States
      Telephone Information Contact 888-646-1400
      Website www.finish-pro.com/default.aspx
      E-mail mstevens@medcocorp.com
      Contact person Mark Stevens
      Emergency phone number Emergency Contact 888-646-1400

2. Hazard(s) Identification
Physical hazards Organic peroxides Type E
Health hazards Serious eye damage/eye irritation Category 2B
   Sensitization, skin Category 1
Environmental hazards Hazardous to the aquatic environment, acute hazard Category 1
OSHA defined hazards Not classified.
Label elements
   Signal word Warning
   Hazard statement Heating may cause a fire. May cause an allergic skin reaction. Causes eye irritation. Very toxic to aquatic life.
   Precautionary statement Prevention
      Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep/Store away from clothing and other combustible materials. Keep only in original container. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.
      Response
         If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
         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. Wash contaminated clothing before reuse. Collect spillage.
      Storage
         Protect from sunlight. Store at temperatures not exceeding 25°C / 77°F. Keep cool. Store away from other materials.
      Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
   Hazard(s) not otherwise classified (HNOC) None known.
   Supplemental information 29.5% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.
3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide</td>
<td></td>
<td>94-36-0</td>
<td>50 to &lt;60</td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate</td>
<td></td>
<td>7778-18-9</td>
<td>5 to &lt;10</td>
</tr>
<tr>
<td>Zinc Stearate</td>
<td></td>
<td>557-05-1</td>
<td>5 to &lt;10</td>
</tr>
</tbody>
</table>

Other components below reportable levels 40 to <50

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed:

- Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed:

- Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information:

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures


Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters:

- Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions:

- In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.

General fire hazards:

- Heating may cause a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

- Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up:

- Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

- Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

- Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

- Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions: Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage
Precautions for safe handling: Keep away from heat, sparks and open flame. When using do not smoke. Keep away from clothing and other combustible materials. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Keep only in the original container. Store away from other materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide (CAS 94-36-0)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate (CAS 7778-18-9)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Zinc Stearate (CAS 557-05-1)</td>
<td>PEL</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide (CAS 94-36-0)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate (CAS 7778-18-9)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Zinc Stearate (CAS 557-05-1)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide (CAS 94-36-0)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Calcium Sulfate Dihydrate (CAS 7778-18-9)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Zinc Stearate (CAS 557-05-1)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Total</td>
</tr>
</tbody>
</table>

Biological limit values: No biological exposure limits noted for the ingredient(s).

Exposure guidelines: Occupational Exposure Limits are not relevant to the current physical form of the product.

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection: Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other: Wear appropriate chemical resistant clothing.

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

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.
When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

- **Physical state**: Solid.
- **Form**: Solid. Paste Paste.
- **Color**: Blue
- **Odor**: Not available.
- **Odor threshold**: Not available.
- **pH**: Not available.
- **Melting point/freezing point**: Not available.
- **Initial boiling point and boiling range**: Not available.
- **Flash point**: Not available.
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.

Upper/lower flammability or explosive limits

- **Flammability limit - lower (%)**: Not available.
- **Flammability limit - upper (%)**: Not available.
- **Explosive limit - lower (%)**: Not available.
- **Explosive limit - upper (%)**: Not available.

**Vapor pressure**: 0.0002 hPa estimated

**Vapor density**: Not available.

**Relative density**: Not available.

Solubility(ies)

- **Solubility (water)**: Not available.
- **Partition coefficient (n-octanol/water)**: Not available.

**Auto-ignition temperature**: Not available.

**Decomposition temperature**: 122 °F (50 °C) SADT

**Viscosity**: Not available.

Other information

- **Density**: 9.98 lbs/gal
- **Explosive properties**: Not explosive.
- **Oxidizing properties**: Not oxidizing.
- **Percent volatile**: 20 % estimated
- **Specific gravity**: 1.2
- **VOC**: 20 % estimated

10. Stability and reactivity

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

**Chemical stability**: Material is stable under normal conditions.

**Possibility of hazardous reactions**: Hazardous polymerization does not occur.

**Conditions to avoid**: Avoid heat, sparks, open flames and other ignition sources. Sunlight. Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.


**Hazardous decomposition products**: No hazardous decomposition products are known.
11. Toxicological information

Information on likely routes of exposure

Inhalation
No adverse effects due to inhalation are expected.

Skin contact
May cause an allergic skin reaction.

Eye contact
Causes eye irritation.

Ingestion
Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity
May cause an allergic skin reaction.

Components  Species  Test Results

Benzoyl peroxide (CAS 94-36-0)

Acute

Oral

LD50
Rat
7710 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation
Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation
Causes eye irritation.

Respiratory or skin sensitization

Respiratory sensitization
Not a respiratory sensitizer.

Skin sensitization
May cause an allergic skin reaction.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity
Benzoyl peroxide (CAS 94-36-0) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

12. Ecological information

Ecotoxicity
Very toxic to aquatic life.

Components  Species  Test Results

Calcium Sulfate Dihydrate (CAS 7778-18-9)

Aquatic

Fish
LC50
Fathead minnow (Pimephales promelas) > 1970 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)
Benzoyl peroxide 3.46

Mobility in soil
No data available.
Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN3108</td>
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<tr>
<td>UN proper shipping name</td>
<td>Organic peroxide type E, solid (&lt;52% Dibenzoyl Peroxide as a paste), MARINE POLLUTANT (Benzoyl peroxide)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>5.2</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
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<tr>
<td>Label(s)</td>
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<tr>
<td>Packing group</td>
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<tr>
<td>Marine pollutant</td>
<td>Yes</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td></td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
</tr>
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</table>

IATA

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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<td>Transport hazard class(es)</td>
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<tr>
<td>Class</td>
<td>5.2</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Environmental hazards</td>
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<tr>
<td>ERG Code</td>
<td>5L</td>
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<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
</tr>
<tr>
<td>Passenger and cargo aircraft</td>
<td>Allowed with restrictions.</td>
</tr>
<tr>
<td>Cargo aircraft only</td>
<td>Allowed with restrictions.</td>
</tr>
</tbody>
</table>

IMDG

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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</thead>
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<td>UN3108</td>
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<tr>
<td>UN proper shipping name</td>
<td>Organic peroxide type E, solid (&lt;52% Dibenzoyl Peroxide as a paste), MARINE POLLUTANT</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>5.2</td>
</tr>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td></td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>Yes</td>
</tr>
<tr>
<td>EmS</td>
<td>F-J,S-R</td>
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<tr>
<td>Special precautions for user</td>
<td>Read safety instructions, SDS and emergency procedures before handling.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>
General information
IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Zinc Stearate (CAS 557-05-1) Listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - Yes

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoyl peroxide</td>
<td>94-36-0</td>
<td>50 to &lt;60</td>
</tr>
<tr>
<td>Zinc Stearate</td>
<td>557-05-1</td>
<td>5 to &lt;10</td>
</tr>
</tbody>
</table>
Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. Massachusetts RTK - Substance List
Benzoyl peroxide (CAS 94-36-0)
Calcium Sulfate Dihydrate (CAS 7778-18-9)
Zinc Stearate (CAS 557-05-1)

US. New Jersey Worker and Community Right-to-Know Act
Benzoyl peroxide (CAS 94-36-0)
Calcium Sulfate Dihydrate (CAS 7778-18-9)
Zinc Stearate (CAS 557-05-1)

US. Pennsylvania Worker and Community Right-to-Know Law
Benzoyl peroxide (CAS 94-36-0)
Calcium Sulfate Dihydrate (CAS 7778-18-9)
Zinc Stearate (CAS 557-05-1)

US. Rhode Island RTK
Benzoyl peroxide (CAS 94-36-0)
Zinc Stearate (CAS 557-05-1)

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date: 01-06-2016
Version #: 01

HMIS® ratings
Health: 2
Flammability: 0
Physical hazard: 2
Personal protection: D

NFPA ratings
Health: 2
Flammability: 0
Instability: 2
Disclaimer

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