SAFETY DATA SHEET

1. Identification

Product identifier 2K SELF ETCHING CATALYST

Other means of identification

Product code BPR2241

Recommended use Catalyst

Recommended restrictions No other uses are advised.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Liberty Bell Equipment Corp

Address 810 N. Jefferson Ave.

St. Louis, MO 63106

United States

Telephone (888) 646-1400

Website www.axiscoatings.com

Emergency phone number EMERGENCY 24 Hrs. ChemTrec 800-424-9300

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Acute toxicity, oral Category 4

Skin corrosion/irritation Category 1A

Serious eye damage/eye irritation Category 1

Carcinogenicity Category 2

Reproductive toxicity Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

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 2

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic 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. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response
If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

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
0.01% of the mixture consists of component(s) of unknown acute oral toxicity. 33.35% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 33.35% 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>Ethanol</td>
<td></td>
<td>64-17-5</td>
<td>40 - &lt; 60</td>
</tr>
<tr>
<td>Isopropanol</td>
<td></td>
<td>67-63-0</td>
<td>20 - &lt; 40</td>
</tr>
<tr>
<td>N-Butyl Alcohol</td>
<td></td>
<td>71-36-3</td>
<td>10 - &lt; 25</td>
</tr>
<tr>
<td>Methanol</td>
<td></td>
<td>67-56-1</td>
<td>0 - &lt; 5</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td></td>
<td>108-10-1</td>
<td>0 - &lt; 5</td>
</tr>
<tr>
<td>Phosphoric Acid Regulatory</td>
<td></td>
<td>7664-38-2</td>
<td>0 - &lt; 5</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td>&lt; 1</td>
<td></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. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. 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. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed
Burning pain and severe corrosive skin damage. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing. 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. Chemical 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
Alcohol resistant foam. Water fog. 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
Highly 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.

Methods and materials for containment and cleaning up
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. 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. Use water spray to reduce vapors or divert vapor cloud drift. 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.

Environmental precautions
Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.
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 get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. 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. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

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".

Conditions for safe storage, including any incompatibilities

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>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>PEL</td>
<td>1900 mg/m³</td>
</tr>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>PEL</td>
<td>980 mg/m³</td>
</tr>
<tr>
<td>Methanol (CAS 67-56-1)</td>
<td>PEL</td>
<td>260 mg/m³</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone (CAS 108-10-1)</td>
<td>PEL</td>
<td>410 mg/m³</td>
</tr>
<tr>
<td>N-Butyl Alcohol (CAS 71-36-3)</td>
<td>PEL</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Phosphoric Acid Regulatory (CAS 7664-38-2)</td>
<td>PEL</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>STEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>400 ppm</td>
</tr>
<tr>
<td>Methanol (CAS 67-56-1)</td>
<td>STEL</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone (CAS 108-10-1)</td>
<td>STEL</td>
<td>75 ppm</td>
</tr>
<tr>
<td>N-Butyl Alcohol (CAS 71-36-3)</td>
<td>TWA</td>
<td>20 ppm</td>
</tr>
<tr>
<td>Phosphoric Acid Regulatory (CAS 7664-38-2)</td>
<td>TWA</td>
<td>20 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mg/m³</td>
</tr>
<tr>
<td>3 mg/m³</td>
</tr>
<tr>
<td>20 ppm</td>
</tr>
<tr>
<td>20 ppm</td>
</tr>
<tr>
<td>1 mg/m³</td>
</tr>
<tr>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>
US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>TWA</td>
<td>1900 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>STEL</td>
<td>1225 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>980 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>400 ppm</td>
</tr>
<tr>
<td>Methanol (CAS 67-56-1)</td>
<td>STEL</td>
<td>325 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>260 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 ppm</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone (CAS 108-10-1)</td>
<td>STEL</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75 ppm</td>
</tr>
<tr>
<td>N-Butyl Alcohol (CAS 71-36-3)</td>
<td>Ceiling</td>
<td>150 mg/m³</td>
</tr>
<tr>
<td>Phosphoric Acid Regulatory (CAS 7664-38-2)</td>
<td>STEL</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

**Biological limit values**

**ACGIH Biological Exposure Indices**

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol (CAS 67-63-0)</td>
<td>40 mg/l</td>
<td>Acetone</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td>Methanol (CAS 67-56-1)</td>
<td>15 mg/l</td>
<td>Methanol</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone (CAS 108-10-1)</td>
<td>1 mg/l</td>
<td>Methyl isobutyl ketone</td>
<td>Urine</td>
<td>*</td>
</tr>
</tbody>
</table>

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

**Exposure guidelines**

**US - California OELs: Skin designation**
- Methanol (CAS 67-56-1) Can be absorbed through the skin.
- N-Butyl Alcohol (CAS 71-36-3) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**
- Methanol (CAS 67-56-1) Skin designation applies.
- N-Butyl Alcohol (CAS 71-36-3) Skin designation applies.

**US - Tennessee OELs: Skin designation**
- Methanol (CAS 67-56-1) Can be absorbed through the skin.
- N-Butyl Alcohol (CAS 71-36-3) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**
- Methanol (CAS 67-56-1) Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**
- Methanol (CAS 67-56-1) Can be absorbed through the skin.
- N-Butyl Alcohol (CAS 71-36-3) 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**
Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**
- Hand protection
  Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
- Other
  Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection
Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
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.

9. Physical and chemical properties

Appearance
Physical state  Liquid.
Form  Liquid.
Color  Colorless
Odor  Solvent.
Odor threshold  Not available.
pH  Not available.
Melting point/freezing point  -173.38 °F (-114.1 °C) estimated
Initial boiling point and boiling range  173.3 °F (78.5 °C) estimated
Flash point  53.6 °F (12.0 °C) estimated
Evaporation rate  Not available.
Flammability (solid, gas)  Not applicable.

Upper/lower flammability or explosive limits
Flammability limit - lower (%)  1.5 % estimated
Flammability limit - upper (%)  12 % estimated
Explosive limit - lower (%)  Not available.
Explosive limit - upper (%)  Not available.

Vapor pressure  62.39 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  650 °F (343.33 °C) estimated
Decomposition temperature  Not available.
Viscosity  Not available.

Other information
Density  0.81 g/cm3 estimated
Flammability class  Flammable IB estimated
Percent volatile  98 w/w % By Weight
98.73 v/v % By Volume
Specific gravity  0.81 estimated
VOC (Weight %)
6.53 lb/gal (Actual VOC - With Water With Exempts)
6.54 lb/gal (Regulatory VOC - Less Water Less Exempts)
782.26 g/L (Actual VOC - With Water With Exempts)
784.02 g/L (Regulatory VOC - Less Water Less Exempts)

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. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials

Hazardous decomposition products
No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation
May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system.

Skin contact
Causes severe skin burns.

Eye contact
Causes serious eye damage.

Ingestion
Causes digestive tract burns. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics
Burning pain and severe corrosive skin damage. Headache. May cause drowsiness and dizziness. Nausea, vomiting. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing.

Information on toxicological effects

Acute toxicity
Harmful if swallowed. Narcotic effects.

Components | Species | Test Results
--- | --- | ---
Ethanol (CAS 64-17-5) |  |  
**Acute** |  |  
Inhalation | Mouse | 39 mg/l, 4 Hours  
Rat | 20000 ppm, 10 Hours  
**Oral** | Dog | 5.5 g/kg  
Guinea pig | 5.6 g/kg  
Mouse | 3450 mg/kg  
Rat | 6.2 g/kg  
Isopropanol (CAS 67-63-0) |  |  
**Acute** |  |  
Dermal | Rabbit | 12800 mg/kg  
**Oral** | Dog | 4797 mg/kg  
Mouse | 3600 mg/kg  
Rabbit | 5.03 g/kg  
Rat | 4.7 g/kg  
Methanol (CAS 67-56-1) |  |  
**Acute** |  |  
Dermal | Rabbit | 15800 mg/kg  
Inhalation | Cat | 85.41 mg/l, 4.5 Hours  
Rat | 43.68 mg/l, 6 Hours  
LD50 | 64000 ppm, 4 Hours  
Rat | 87.5 mg/l, 6 Hours  
**Oral** | Dog | 8000 mg/kg  
Monkey | 2 g/kg
### Components

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse 7300 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Rabbit 14.4 g/kg</td>
<td></td>
</tr>
<tr>
<td>Rat 5628 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**Methyl Isobutyl Ketone (CAS 108-10-1)**

<table>
<thead>
<tr>
<th>Acute</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Rabbit</td>
</tr>
<tr>
<td>&gt; 16000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>LC50</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.2 mg/l, 4 Hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2080 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**N-Butyl Alcohol (CAS 71-36-3)**

<table>
<thead>
<tr>
<th>Acute</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Rabbit</td>
</tr>
<tr>
<td>3400 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>LC50</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8000 ppm, 4 Hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>790 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**Phosphoric Acid Regulatory (CAS 7664-38-2)**

<table>
<thead>
<tr>
<th>Acute</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Rabbit</td>
</tr>
<tr>
<td>2740 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1530 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

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

**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Respiratory or skin sensitization**

- **Respiratory sensitization**: Not a respiratory sensitizer.
- **Skin sensitization**: This product is not expected to cause skin sensitization.
- **Germ cell mutagenicity**: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

- **IARC Monographs. Overall Evaluation of Carcinogenicity**
  - Methyl Isobutyl Ketone (CAS 108-10-1) 2B Possibly carcinogenic to humans.
  - Not listed.

**Reproductive toxicity**

Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity - single exposure**

May cause drowsiness and dizziness.

**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 with long lasting effects.
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanol (CAS 64-17-5)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50</td>
<td>Water flea (Daphnia magna)</td>
<td>7.7 - 11.2 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>&gt; 100 mg/l, 96 hours</td>
</tr>
<tr>
<td><strong>Isopropanol (CAS 67-63-0)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
<td>&gt; 1400 mg/l, 96 hours</td>
</tr>
<tr>
<td><strong>Methanol (CAS 67-56-1)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50</td>
<td>Water flea (Daphnia magna)</td>
<td>&gt; 10000 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>&gt; 100 mg/l, 96 hours</td>
</tr>
<tr>
<td><strong>Methyl Isobutyl Ketone (CAS 108-10-1)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>492 - 593 mg/l, 96 hours</td>
</tr>
<tr>
<td><strong>N-Butyl Alcohol (CAS 71-36-3)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50</td>
<td>Water flea (Daphnia magna)</td>
<td>1897 - 2072 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
<td>100 - 500 mg/l, 96 hours</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></th>
<th>Partition coefficient n-octanol / water (log Kow)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>-0.31</td>
<td></td>
</tr>
<tr>
<td>Isopropanol</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>-0.77</td>
<td></td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>1.31</td>
<td></td>
</tr>
<tr>
<td>N-Butyl Alcohol</td>
<td>0.88</td>
<td></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**

The following transportation information is provided based on the manufacturer's interpretation of shipping regulations. Each shipper is responsible for identifying, naming, marking, and labeling prior to offering for transport.

**DOT**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN1263</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Paint related material including paint thinning, drying, removing, or reducing compound</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>
</tbody>
</table>
Label(s)  3
Packing group  II
Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.
Special provisions
149, B52, IB2, T4, TP1, TP8, TP28
Packaging exceptions  150
Packaging non bulk  173
Packaging bulk  242

IATA
UN number  UN1263
UN proper shipping name  Paint related material (including paint thinning or reducing compounds)
Transport hazard class(es)
Class  3
Subsidiary risk  -
Packing group  II
Environmental hazards  No.
ERG Code  3L
Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft  Allowed.
Cargo aircraft only  Allowed.

IMDG
UN number  UN1263
UN proper shipping name  PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Transport hazard class(es)
Class  3
Subsidiary risk  -
Packing group  II
Environmental hazards
Marine pollutant  No.
EmS  F-E, S-E
Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

DOT

General information  DOT Regulated Marine Pollutant. IMDG 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. All components are on the U.S. EPA TSCA Inventory List.

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

CERCLA Hazardous Substance List (40 CFR 302.4)
- Ethanol (CAS 64-17-5) Listed.
- Isopropanol (CAS 67-63-0) Listed.
- Methanol (CAS 67-56-1) Listed.
- Methyl Isobutyl Ketone (CAS 108-10-1) Listed.
- N-Butyl Alcohol (CAS 71-36-3) Listed.
- Phosphoric Acid Regulatory (CAS 7664-38-2) Listed.

SARA 304 Emergency release notification
Not regulated.

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

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>Isopropanol</td>
<td>67-63-0</td>
<td>20 - &lt; 40</td>
</tr>
<tr>
<td>N-Butyl Alcohol</td>
<td>71-36-3</td>
<td>10 - &lt; 25</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>0 - &lt; 5</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>108-10-1</td>
<td>0 - &lt; 5</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
- Methanol (CAS 67-56-1)
- Methyl Isobutyl Ketone (CAS 108-10-1)

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

Safe Drinking Water Act (SDWA)
Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
- Methyl Isobutyl Ketone (CAS 108-10-1) 6715

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
- Methyl Isobutyl Ketone (CAS 108-10-1) 35 %WV

DEA Exempt Chemical Mixtures Code Number
- Methyl Isobutyl Ketone (CAS 108-10-1) 6715

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))
- Isopropanol (CAS 67-63-0)
- Methanol (CAS 67-56-1)
- Methyl Isobutyl Ketone (CAS 108-10-1)
- Phosphoric Acid Regulatory (CAS 7664-38-2)
US. Massachusetts RTK - Substance List
Ethanol (CAS 64-17-5)
Isopropanol (CAS 67-63-0)
Methanol (CAS 67-56-1)
Methyl Isobutyl Ketone (CAS 108-10-1)
N-Butyl Alcohol (CAS 71-36-3)
Phosphoric Acid Regulatory (CAS 7664-38-2)

US. New Jersey Worker and Community Right-to-Know Act
Ethanol (CAS 64-17-5)
Isopropanol (CAS 67-63-0)
Methanol (CAS 67-56-1)
Methyl Isobutyl Ketone (CAS 108-10-1)
N-Butyl Alcohol (CAS 71-36-3)
Phosphoric Acid Regulatory (CAS 7664-38-2)

US. Pennsylvania Worker and Community Right-to-Know Law
Ethanol (CAS 64-17-5)
Isopropanol (CAS 67-63-0)
Methanol (CAS 67-56-1)
Methyl Isobutyl Ketone (CAS 108-10-1)
N-Butyl Alcohol (CAS 71-36-3)
Phosphoric Acid Regulatory (CAS 7664-38-2)

US. Rhode Island RTK
Isopropanol (CAS 67-63-0)
Methanol (CAS 67-56-1)
Methyl Isobutyl Ketone (CAS 108-10-1)
N-Butyl Alcohol (CAS 71-36-3)
Phosphoric Acid Regulatory (CAS 7664-38-2)

US. California Proposition 65
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
Ethanol (CAS 64-17-5) Listed: April 29, 2011
Listed: July 1, 1988
Methyl Isobutyl Ketone (CAS 108-10-1) Listed: November 4, 2011

US - California Proposition 65 - CRT: Listed date/Developmental toxin
Ethanol (CAS 64-17-5) Listed: October 1, 1987
Methanol (CAS 67-56-1) Listed: March 16, 2012
Methyl Isobutyl Ketone (CAS 108-10-1) Listed: March 28, 2014

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>No</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>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</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>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</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

Version 2.1
Revision Date 08/23/2016
Disclaimer Our company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in this sheet was written based on the best knowledge and experience currently available.