1. IDENTIFICATION

Product Identifier
Product Name
Brush&Bond® Brushes

Other means of identification
SDS #
S286

Recommended use of the chemical and restrictions on use
Recommended Use
Dental Adhesive System.

Details of the supplier of the safety data sheet
Supplier Address
Parkell, Inc.
300 Executive Drive
Edgewood, NY 11717

Emergency Telephone Number
Company Phone Number
(631) 249-1134
Emergency Telephone (24 hr)
INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance
White solid coated on brush tuft

Physical State
Solid

Odor
No odor

Classification

Hazards Not Otherwise Classified (HNOC)
May form combustible dust concentrations in air

Signal Word
Warning

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic Sodium Sulfinate</td>
<td>Proprietary</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**
4. FIRST-AID MEASURES

First Aid Measures

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact**
Wash off immediately with soap and plenty of water. Get medical attention if irritation develops or persists.

**Inhalation**
No specific treatment is necessary for inhalation of a small amount. If exposed to excessive levels of dust, remove to fresh air and get medical attention if cough or other symptoms develop. If breathing is difficult, give oxygen and get medical attention.

**Ingestion**
Promptly drink several glasses of water or milk to dilute. Get medical attention.

**Most important symptoms and effects**

**Symptoms**
May be irritating to skin and eyes. May be irritating to the mouth, throat and stomach.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
For small fires, use dry chemical, carbon dioxide (CO2), water spray, or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam.

**Unsuitable Extinguishing Media**
Not determined.

**Specific Hazards Arising from the Chemical**
Combustible. Concentration of the dust may be explosive.

**Hazardous Combustion Products**

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**
Use personal protection recommended in Section 8.

**Environmental Precautions**
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

**Methods and material for containment and cleaning up**

**Methods for Containment**
Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up**
Sweep up and shovel into suitable containers for disposal. Flush spill area with water.
7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling
Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Use only in well-ventilated areas. Protect container from physical damage.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed. Store in a cool, dry, and dark place, preferably in a refrigerator. Protect from direct sunlight. Store away from ignition sources and incompatible materials.

Incompatible Materials
Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
No exposure limits noted for ingredient(s). The following information is given as general guidance

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Safety glasses.

Skin and Body Protection
Impervious protective gloves.

Respiratory Protection
No protection is ordinarily required under normal conditions of use and with adequate ventilation.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White solid coated on brush tuft</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>No odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>Property</td>
<td>Values</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;250 °C / &gt;482 °F</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not established</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not established</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Hygroscopic.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to Avoid
Keep separated from incompatible substances. Avoid high temperatures (above 30°C/86°F), high humidity, direct sunlight, and ignition sources. Keep out of reach of children.

Incompatible Materials
Strong oxidizing agents.

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Avoid contact with eyes.

Skin Contact
Avoid contact with skin.

Inhalation
Avoid inhalation of dust.

Ingestion
Do not ingest.
Component Information
Not available

Information on physical, chemical and toxicological effects

Symptoms
Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity
Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information
Not available

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
Not regulated

IATA
Not regulated

IMDG
Not regulated
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic Sodium Sulfinate</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:
- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- **EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- **ENCS** - Japan Existing and New Chemical Substances
- **IESCC** - China Inventory of Existing Chemical Substances
- **KECL** - Korean Existing and Evaluated Chemical Substances
- **PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- **AICS** - Australian Inventory of Chemical Substances

US Federal Regulations

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

**California Proposition 65**
This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**
This product does not contain any substances regulated under applicable state right-to-know regulations.
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 18-Nov-2013
Revision Date: 13-Jan-2015
Revision Note: New format

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. 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.

End of Safety Data Sheet
1. IDENTIFICATION

Product Identifier
Product Name
Brush&Bond® Universal Liquid

Other means of identification
SDS #
S240, S241, S242

UN/ID No
UN1247

Recommended use of the chemical and restrictions on use
Recommended Use
Dental Adhesive System.

Details of the supplier of the safety data sheet
Supplier Address
Parkell, Inc.
300 Executive Drive
Edgewood, NY 11717

Emergency Telephone Number
Company Phone Number
(631) 249-1134

Emergency Telephone (24 hr)
INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance
Translucent liquid

Physical State
Liquid

Odor
Mint-like

Classification
Skin corrosion/irritation
Category 2

Serious eye damage/eye irritation
Category 2

Skin sensitization
Category 1

Specific target organ toxicity (single exposure)
Category 3

Flammable Liquids
Category 2

Hazards Not Otherwise Classified (HNOC)
May be harmful if swallowed

Signal Word
Danger

Hazard Statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause respiratory irritation. May cause drowsiness or dizziness
Highly flammable liquid and vapor
**Precautionary Statements - Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge

**Precautionary Statements - Response**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Get medical attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Get medical advice / attention
IN CASE OF FIRE: Use CO2, dry chemical, or foam for extinction

**Precautionary Statements - Storage**
Store locked up
Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>80-62-6</td>
<td>Proprietary</td>
</tr>
<tr>
<td>4-methacryloxyethyltrimellitic Acid Anhydride (4META)</td>
<td>70293-55-9</td>
<td>Proprietary</td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate</td>
<td>868-77-9</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.*
4. FIRST-AID MEASURES

First Aid Measures

Eye Contact  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

Skin Contact  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion  
Promptly drink several glasses of water or milk to dilute. Get medical attention.

Most important symptoms and effects

Symptoms  
May cause serious eye irritation. May cause skin irritation or redness. May cause an allergic skin reaction. Inhalation of high concentration may cause central nervous system effects characterized by headache, dizziness, unconsciousness, and coma. May cause respiratory tract irritation. Ingestion may cause irritation of the digestive tract. May cause nausea and/or vomiting. May cause central nervous system depression with symptoms including headache, excitement, fatigue, nausea, vomiting, stupor, and coma.

Indication of any immediate medical attention and special treatment needed

Notes to Physician  
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media  
For small fires, use dry chemical, carbon dioxide (CO₂), water spray, or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam.

Unsuitable Extinguishing Media  
Not determined.

Specific Hazards Arising from the Chemical  
Highly flammable liquid and vapor. Combustion products may be toxic.

Hazardous Combustion Products  
Carbon monoxide. Carbon dioxide (CO₂).

Sensitivity to Static Discharge  
Take precautionary measures against static discharge.

Protective equipment and precautions for firefighters  
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions  
Use personal protection recommended in Section 8.

Environmental Precautions  
Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.
Methods and material for containment and cleaning up

Methods for Containment
Remove all ignition sources and ventilate the area of leak or spill.

Methods for Clean-Up
Contain and collect with an inert absorbent and place into an appropriate container for disposal. Do not flush to sewer.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling
Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash face, hands, and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Protect container from physical damage.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Store between 5°C and 30°C (41°F and 86°F). Do NOT freeze. Store away from direct sunlight. Keep away from sources of ignition. Do NOT store under pure nitrogen or oxygen-free gas.

Incompatible Materials
Polymerization initiators such as peroxide, persulfate, amine, light, strong acids, oxidizing agents, chloroform, and alkalis.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>STEL: 750 ppm TWA:</td>
<td>TWA: 1000 ppm</td>
<td>IDLH: 2500 ppm</td>
</tr>
<tr>
<td></td>
<td>500 ppm</td>
<td>TWA: 2400 mg/m³</td>
<td>TWA: 250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 750</td>
<td>TWA: 590 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ppm (vacated) TWA:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1800 mg/m³ (vacated) STEL: 2400 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors (vacated) STEL: 1000 ppm</td>
<td></td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>STEL: 100 ppm TWA:</td>
<td>TWA: 100 ppm</td>
<td>IDLH: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>50 ppm</td>
<td>TWA: 410 mg/m³</td>
<td>TWA: 100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 100 ppm (vacated) TWA: 410 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers.
Individual protection measures, such as personal protective equipment

Eye/Face Protection
Safety glasses.

Skin and Body Protection
Impervious protective gloves.

Respiratory Protection
No protection is ordinarily required under normal conditions of use and with adequate ventilation. If exposure limit is exceeded, a vapor respirator should be worn.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Translucent liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Translucent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Mint-like</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>56 °C / 133 °F</td>
<td>(acetone)</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>-18 °C / -0.4 °F</td>
<td>(based on acetone) Tag Closed Cup</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid-Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>13% (acetone)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>2% (acetone)</td>
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<tr>
<td>Vapor Pressure</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
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<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
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<td>(Water = 1)</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
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<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>420 °C / 788 °F</td>
<td>(methyl methacrylate)</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
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<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
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</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Elevated temperatures, oxidizers, or light may cause polymerization.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization may occur.
Conditions to Avoid
Keep separated from incompatible substances. Avoid heat beyond 30°C (86°F), temperatures below 5°C (41°F), high humidity, direct sunlight, and ignition sources. Keep out of reach of children.

Incompatible Materials
Polymerization initiators such as peroxide, persulfate, amine, light, strong acids, oxidizing agents, chloroform, and alkalis.

Hazardous Decomposition Products
Carbon monoxide. Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye irritation.

Skin Contact Causes skin irritation. May cause an allergic skin reaction.

Inhalation May cause respiratory irritation. May cause drowsiness or dizziness.

Ingestion May be harmful if swallowed.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>= 5800 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4-methacryloxyethyltrimellitic Acid Anhydride (4META) 70293-55-9</td>
<td>&gt; 2 g/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>= 7872 mg/kg (Rat)</td>
<td>&gt; 5 g/kg (Rabbit)</td>
<td>= 4632 ppm (Rat) 4 h = 400 ppm (Rat) 1 h</td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate 88-77-9</td>
<td>= 5050 mg/kg (Rat)</td>
<td>&gt; 3000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester 97-90-5</td>
<td>= 3300 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause an allergic skin reaction.

Carcinogenicity Group 3 IARC components are "not classifiable as human carcinogens".

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

Numerical measures of toxicity
Not determined
12. ECOLOGICAL INFORMATION

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td></td>
<td></td>
<td>EC50 = 14500 mg/L 15 min</td>
<td>10294 - 17704: 48 h Daphnia magna mg/L EC50 Static</td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>170: 96 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>243 - 275: 96 h Pimephales promelas mg/L LC50 flow-through 125.5 - 190.7: 96 h Pimephales promelas mg/L LC50 static 170 - 206: 96 h Lepomis macrochirus mg/L LC50 flow-through 153.9 - 341.8: 96 h Lepomis macrochirus mg/L LC50 static 79: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 79: 96 h Oncorhynchus mykiss mg/L LC50 static 326.4 - 426.9: 96 h Poecilia reticulata mg/L LC50 static</td>
<td>EC50 Static 12600 - 12700: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate 868-77-9</td>
<td></td>
<td>213 - 242: 96 h Pimephales promelas mg/L LC50 flow-through 227: 96 h Pimephales promelas mg/L LC50</td>
<td></td>
<td>69: 48 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>-0.24</td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>0.7</td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate 868-77-9</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Other Adverse Effects
Not determined
13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td></td>
<td>Included in waste stream: F039</td>
<td></td>
<td>U002</td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>U162</td>
<td>Included in waste stream: F039</td>
<td></td>
<td>U162</td>
</tr>
</tbody>
</table>

California Hazardous Waste Status

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>Ignitable</td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>Toxic Ignitable</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

Note
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No: UN1247
Proper Shipping Name: Methyl methacrylate monomer, stabilized
Hazard Class: 3
Packing Group: II

IATA

UN/ID No: UN1247
Proper Shipping Name: Methyl methacrylate monomer, stabilized
Hazard Class: 3
Packing Group: II

IMDG

UN/ID No: UN1247
Proper Shipping Name: Methyl methacrylate monomer, stabilized
Hazard Class: 3
Packing Group: II
## 15. REGULATORY INFORMATION

### International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-methacryloxyethyltrimellitic Acid Anhydride (4META)</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Hydroxyethyl methacrylate</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>Present</td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- **EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- **ENCS** - Japan Existing and New Chemical Substances
- **IECSC** - China Inventory of Existing Chemical Substances
- **KECL** - Korean Existing and Evaluated Chemical Substances
- **PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- **AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### CERCLA

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>5000 lb</td>
<td></td>
<td>RQ 5000 lb final RQ</td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>1000 lb</td>
<td></td>
<td>RQ 2270 kg final RQ</td>
</tr>
</tbody>
</table>

#### SARA 313

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl methacrylate - 80-62-6</td>
<td>80-62-6</td>
<td>Proprietary</td>
<td>1.0</td>
</tr>
</tbody>
</table>

#### CWA (Clean Water Act)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl methacrylate</td>
<td>1000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone 67-64-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Methyl methacrylate 80-62-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 18-Nov-2013
Revision Date: 13-Jan-2015
Revision Note: New format

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. 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.

End of Safety Data Sheet