1. IDENTIFICATION

Product Identifier
Product Name: Amalgambond Adhesive Agent

Other means of identification
SDS #: S374

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

Details of the supplier of the safety data sheet
Supplementary 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: Clear, water-white liquid
Physical State: Liquid
Odor: Mild and pleasant

Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Hazards Not Otherwise Classified (HNOC)
May be harmful in contact with skin

Signal Word
Warning

Hazard Statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
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

Precautionary Statements - Response
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 ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash it before reuse
If skin irritation or rash occurs: Get medical advice/attention

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>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**
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.

**Skin Contact**
Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

**Inhalation**
Remove to fresh air. Get medical attention if discomfort persists.

**Ingestion**
Do not induce vomiting without medical advice. Get immediate medical attention.

Most important symptoms and effects

**Symptoms**
Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Prolonged exposure can lead to headaches, nausea, dizziness, and unconsciousness.

Indication of any immediate medical attention and special treatment needed

**Notes to Physician**
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Foam. Carbon dioxide (CO2). Dry chemical.

**Unsuitable Extinguishing Media**
Not determined.

**Specific Hazards Arising from the Chemical**
Vapors may travel to source of ignition and flash back. Heat can cause polymerization with rapid release of energy which may rupture the container explosively. Spontaneous polymerization may occur upon prolonged storage.

**Hazardous Combustion Products**
Carbon oxides.
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. Use water spray to cool exposed containers. Fight fire from safe distance/protected location.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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

**For Emergency Responders**
Evacuate unprotected personnel from area. Remove all sources of ignition.

**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**
Contain and collect with an inert absorbent and place into an appropriate container for disposal. Do not release into sewers or waterways.

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. Contaminated work clothing should not be allowed out of the workplace. Ground/bond container and receiving equipment. Use explosion proof equipment.

Conditions for safe storage, including any incompatibilities

**Storage Conditions**
Keep container tightly closed and store in a cool, dry and well-ventilated place. Check inhibitor levels every three months.

**Incompatible Materials**
Reducing agents. Oxidizing agents. UV light.

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>4-Methoxyphenol 150-76-5</td>
<td>TWA: 5 mg/m³</td>
<td>(vacated) TWA: 5 mg/m³</td>
<td>TWA: 5 mg/m³</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 goggles or glasses.

**Skin and Body Protection**
Impervious, neoprene gloves.

**Respiratory Protection**
If necessary, use a self-contained breathing apparatus.

**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>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>Clear, water-white liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Water-white</td>
<td>Odor</td>
<td>Mild and pleasant</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</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>Not established</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;300 °C / &gt;572 °F</td>
<td>Tag Closed Cup</td>
<td>(butyl acetate = 1)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&gt;1</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>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>0.1 mm HG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt;1</td>
<td>(Air=1)</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.074</td>
<td>(Water = 1)</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Not determined</td>
<td></td>
<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>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
<td></td>
<td></td>
</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
UNSTABLE.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Exposure to temperatures above 40°C (104°F), oxidizing agents, reducing agents, peroxides, or amines may cause hazardous polymerization to occur.

Conditions to Avoid

Incompatible Materials
Reducing agents. Oxidizing agents. UV light.

Hazardous Decomposition Products
Carbon oxides.
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. May be harmful in contact with skin.

Inhalation  Avoid breathing vapors or mists.

Ingestion  Do not ingest.

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>2-Hydroxyethyl methacrylate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>868-77-9</td>
<td>= 5050 mg/kg (Rat)</td>
<td>&gt; 3000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>4-Methoxyphenol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150-76-5</td>
<td>= 1600 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  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

<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>2-Hydroxyethyl methacrylate</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></td>
</tr>
<tr>
<td>868-77-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Methoxyphenol</td>
<td></td>
<td>84.3: 96 h Pimephales promelas mg/L LC50 flow-through 28.5: 96 h Oncorhynchus mykiss mg/L LC50 flow-through</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150-76-5</td>
<td></td>
<td></td>
<td>EC50 = 3.66 mg/L 5 min</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 4.30 mg/L 15 min</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC50 = 4.61 mg/L 30 min</td>
<td></td>
</tr>
</tbody>
</table>

Persistence/Degradaibility

Not determined.
Bioaccumulation
Not determined.

Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hydroxyethyl methacrylate</td>
<td>0.47</td>
</tr>
<tr>
<td>868-77-9</td>
<td></td>
</tr>
<tr>
<td>4-Methoxyphenol</td>
<td>1.34</td>
</tr>
<tr>
<td>150-76-5</td>
<td></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.

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>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hydroxyethyl methacrylate</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td>Present</td>
<td>X</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
- **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
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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Methoxyphenol 150-76-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

NFPA
- Health Hazards: 2
- Flammability: 0
- Instability: 1
- Special Hazards: Not determined

HMIS
- Health Hazards: Not determined
- Flammability: Not determined
- Physical Hazards: Not determined
- Personal Protection: Not determined

Issue Date: 21-Feb-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