BREWER SCIENCE INC.
SAFETY DATA SHEET

This Safety Data Sheet has been prepared to comply with the EC Directive, Canadian WHMIS and the OSHA Hazard Communication Standard.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: ProTEK® PSB Primer

Manufacturer: Brewer Science, Inc.
2401 Brewer Drive
Rolla, MO 65401

Information Phone Number: (573) 364-0300
Fax: (573) 368-3318
Email: msds@brewerscience.com

Emergency Phone Number:
Chemtrec Domestic North America: 800-424-9300
Chemtrec International: 703-527-3887

SDS Date of Preparation: 9/21/10

Product Use: Adhesion Promoter Primer

SECTION 2: HAZARDS IDENTIFICATION

Liquid with a mild odor.

EMERGENCY OVERVIEW: Flammable liquid and vapor. May cause eye, skin, and respiratory irritation. May cause headache, dizziness, nausea and other symptoms of central nervous system depression.

EU Preparation Classification (1999/45/EC): Flammable  Irritant (Xi)  R10, R36

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS# / EINECS#</th>
<th>%</th>
<th>EU Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol n-propyl ether (PnP)</td>
<td>1569-01-3 / 216-372-4</td>
<td>65-75</td>
<td>Xi R10, R36</td>
</tr>
<tr>
<td>Additive</td>
<td>Proprietary</td>
<td>&lt;0.1</td>
<td>Xi, R10, R38, R41</td>
</tr>
<tr>
<td>Catalyst</td>
<td>Proprietary</td>
<td>&lt;0.5</td>
<td>C  R10, R35</td>
</tr>
<tr>
<td>Coupling Agent</td>
<td>Proprietary</td>
<td>&lt;2</td>
<td>Xi R38, R41</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5 / 231-791-2</td>
<td>25-35</td>
<td>No EU Classification or R phrase</td>
</tr>
</tbody>
</table>

See Section 16 for further information on EU Classification.

SECTION 4: FIRST AID MEASURES

Eye: Rinse thoroughly with water for at least 15 minutes, holding the eye lids open to be sure the material is washed out. Get immediate medical attention.

Skin: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before re-use.

Inhalation: Remove victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Keep the victim calm and warm. Get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media: Use water fog or spray, alcohol foam, carbon dioxide or dry chemical. Do not use direct water stream.
**Special Fire Fighting Procedures**: Wear an approved, positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

**Unusual Fire Hazards**: Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Vapors may form explosive mixtures with air in confined areas. Application of direct water stream to burning liquid may cause boilover or steam eruption. Spills on hot fibrous insulation may result in spontaneous combustion.

**Hazardous Decomposition Products**: Oxides of carbon and unknown materials.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Spill**: Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed. Ventilate area. Cover with an inert absorbent material and collect into an appropriate container for disposal. Report spills and releases as required to appropriate authorities.

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**SECTION 7: HANDLING AND STORAGE**

**Handling**: Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Always wear impervious gloves, chemical safety goggles and protective clothing when handling this material. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.

**Storage**: Store in a cool, dry, well-ventilated location away from incompatible materials. Keep containers closed when not in use.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol n-propyl ether</td>
<td>None Established</td>
</tr>
<tr>
<td>Additive</td>
<td>None Established</td>
</tr>
<tr>
<td>Catalyst</td>
<td>10 ppm TWA OSHA PEL</td>
</tr>
<tr>
<td></td>
<td>10 ppm TWA ACGIH TLV, 15 ppm STEL</td>
</tr>
<tr>
<td></td>
<td>10 ppm TWA DFG MAK</td>
</tr>
<tr>
<td></td>
<td>10 ppm TWA EU IOEL</td>
</tr>
<tr>
<td>Coupling Agent</td>
<td>None Established</td>
</tr>
<tr>
<td>Water</td>
<td>None Established</td>
</tr>
</tbody>
</table>

**Ventilation**: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits. Use explosion proof electrical equipment and wiring where required.

**Respiratory Protection**: If needed, an approved respirator with organic vapor cartridges may be used. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**Skin Protection**: Impervious gloves are recommended. Based on available test data butyl rubber gloves are suggested. Contact your glove supplier for selection assistance.

**Eye Protection**: Chemical safety goggles recommended.

**Other Protective Equipment**: Impervious clothing is required to prevent skin contact and contamination of personal clothing. An eye wash facility and safety shower should be available in the work area.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Prepared By: Safety & Environmental Units
Approved By: Safety & Environmental Units
Issue/Revision Date F.7.6.3930.D / 2/10/12
Appearance and Odor: Liquid with a solvent odor.

pH: Not available

Boiling Point: 149°C (PnP)

Vapor Pressure: 1.5 mm Hg @ 20°C (PnP)

Vapor Density: Not available

Flash Point: 48°C (118°F) (PnP)

Specific Gravity: Not available

Melting Point: Not Applicable

Water Solubility: Partially Soluble

Evaporation Rate: Not available

Flammable Limits: LEL: 1.1 vol % (PnP) UEL: Not determined

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable: X Unstable:

Incompatibility/Conditions to Avoid: Strong oxidizing agents, acids and bases. Keep away from heat, sparks, flames and other sources of ignition.

Hazardous Decomposition Products: Combustion will produce oxides of carbon and unknown materials.

Hazardous Polymerization: May Occur: Will not occur: X

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause moderate eye irritation. Corneal injury is possible.

Skin: May cause irritation or burns with prolonged or repeated exposure. Repeated contact may cause drying or flaking of the skin.

Inhalation: Inhalation of vapors, mists, or aerosols may cause nose and throat irritation with the possibility of central nervous system depression. Symptoms of central nervous system depression include headache, dizziness, drowsiness, nausea and unconsciousness.

Ingestion: Swallowing may cause gastrointestinal irritation and central nervous system depression with symptoms similar to those described under inhalation.

Chronic Hazards: Chronic exposure may cause kidney or liver effects based on studies with laboratory animals.

Carcinogen Status: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH or the EU Dangerous Substance Directive.

Medical Conditions Aggravated by Exposure: Pre-existing skin diseases.

Acute Toxicity Values:

Propylene glycol n-propyl ether: Oral rat LD50 - 2504 mg/kg; Skin rabbit LD50 - 3550 gm/kg

Additive: No toxicity data is available

Catalyst: Oral rat LD50: 3310 mg/kg; Skin rabbit LD50 1060 mg/kg, Inhalation rat LC50 11.4 mg/L

Coupling Agent: No toxicity data is available

Water: No toxicity data is available

SECTION 12: ECOLOGICAL INFORMATION

Propylene glycol n-propyl ether: 96 hr/LC50, fathead minnow - 3,400 mg/l, 48 hr/LC50 Daphnia magna -3,600 mg/l

Catalyst: 96 hr LC50 fathead minnow 88 ppm; 24 hr EC50 daphnia magna 6,000 mg/L

Coupling Agent: 96 hr LC50 fathead minnow 3,400 mg/L, LC50 daphnia magna 3,600 mg/L.

SECTION 13: DISPOSAL INFORMATION

Dispose in accordance with all local, state and federal regulations.

Prepared By: Safety & Environmental Units

Approved By: Safety & Environmental Units

Issue/Revision Date F.7.6.3930.D / 2/10/12
SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name: Flammable Liquid, n.o.s. (Contains Propylene glycol n-propyl ether)   ERG #127
DOT Hazard Class: 3, PG III
UN Number: UN1993
DOT Labels Required (49CFR172.101): Flammable Liquid (See 173.120 for domestic shipment exemption for combustible liquids)
Hazardous Substance (49CFR172.101): None
Reportable Quantity: N/A

IATA Shipping Name: Flammable Liquid, n.o.s. (Contains Propylene glycol n-propyl ether)
IATA Hazard Class: 3, PG III
UN Number: UN1993
IATA Hazard Labels Required: Flammable Liquid

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: This product is not subject to reporting under CERCLA. Some states have more stringent reporting requirements. Report all spills in accordance with local, state and federal regulations.

SARA TITLE III:

Hazard Category for Section 311/312: Acute Health, Chronic Health, Fire Hazard

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: This product contains a substance(s) that is not listed on the EPA TSCA inventory. A low volume exemption notice has been granted. This exemption restricts the use of this product to Microelectronic Manufacturing Applications.

STATE REGULATIONS:

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: aniline <0.02%.

INTERNATIONAL REGULATIONS:

European Community Labeling:

- R10 Flammable
- R36 Irritating to eyes.
- S25 Avoid contact with eyes.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S51 Use only in well ventilated areas.

SECTION 16: OTHER INFORMATION

HMIS Ratings: Health - 2    Flammability - 2    Reactivity - 0
NFPA Ratings: Health - 2    Flammability - 2    Reactivity – 0
SDS Revision History:
9/21/10: New SDS.
11/2/10: Complete review of SDS. Converted SDS to a Universal GHS format.
8/25/11: Section 2: GHS Classification, Label Elements, Precautionary Phrases, Section 3 percentages
2/10/12: Section 3: Formulation.

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):
C Corrosive
Xi Irritant
R10 Flammable
R35 Causes severe burns.
R36 Irritating to eyes.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Brewer Science, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.