

**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®B3-25

**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

**MSDS Date of Preparation:** 8/28/07

**Product Use:** Protective Coating

**SECTION 2: HAZARDS IDENTIFICATION**

Liquid with a sweet 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):** Irritant (Xi) R10, R36

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS# / EINECS#	%	EU Classification (67/548/EEC)
Ethyl-3-ethoxypropionate	763-69-9 / 212-112-9	30-40	Xi R10, R36
5-methyl-2-hexanone (Methyl Isoamyl Ketone, MIAK)	110-12-3 / 203-737-8	30-40	Xi R10
Polymer Solids	Proprietary	20-30	Not Applicable

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 AND EXPLOSION DATA**

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<b>Approved By:</b>	RMG/Safety & Environmental Units
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**Extinguishing Media:** Use water fog or spray, universal foam, carbon dioxide or dry chemical.

**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. As with any ether, 1-methoxy-2-propanol (PGME) may form highly reactive peroxides upon contact with air.

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

#### 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 and inert absorbent material and collect into an appropriate container for disposal. Report spills and releases as required to appropriate authorities.

#### 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.

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

Chemical Name	Exposure Limits
Ethyl-3-ethoxypropionate	None Established (PEL/TLV)
5-methyl-2-hexanone (Methyl Isoamyl Ketone, MIAK)	50 ppm TWA ACGIH TLV 100 ppm TWA OSHA PEL
Polymer Solids	None Established (PEL/TLV)

**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, 4H or Silver Shield gloves are suggested.

**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.

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Liquid with a sweet odor.

**pH:** Not available

**Boiling Point:** 154-170°C

**Vapor Pressure:** 4.5 mmHg @ 20°C (MIAK)

**Vapor Density:** 3.9 (MIAK)

**Specific Gravity:** Not available

**Melting Point:** Not Applicable

**Water Solubility:** Partially Soluble

**Evaporation Rate:** Not available

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**Flash Point:** 36°C (96°F) (MIAK)

**Flammable Limits: LEL:** 1.0 vol % (MIAK)  
**UEL:** 7.0 vol % (MIAK)

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:**                      **Stable:** X                      **Unstable:**

**Incompatibility/Conditions to Avoid:** Strong oxidizing agents. 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 mild to moderate eye irritation. Corneal injury is possible.

**Skin:** May cause irritation with prolonged or repeated exposure. 5-Methyl-2-hexanone may be absorbed through the skin causing symptoms of headache, dizziness, nausea, and drowsiness.

**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 absorption may cause kidney or liver damage based on studies with laboratory animals.

**Carcinogen Status:** None of the components of this product are listed as carcinogens by OSHA, IARC or NTP.

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

**Acute Toxicity Values:**

Ethyl 3-ethoxypropionate: Oral rat LD50 - 5000 mg/kg; Skin rabbit LD50 - 10 mL/kg

5-methyl-2-hexanone: Oral rat LD50 - 3200 mg/kg; Skin rabbit LD50 - 10mL/kg; Inhalation rat LC50 - 3813 ppm/6 hrs

Polymer: No toxicity data is available

**SECTION 12: ECOLOGICAL INFORMATION**

5-Methyl-2-Hexanone: Lc50 Fathead minnow: 159 mg/L (flow-through)

**SECTION 13: DISPOSAL INFORMATION**

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

**SECTION 14: TRANSPORT INFORMATION**

**DOT Shipping Name:** Resin Solution, Flammable

ERG #127

**DOT Hazard Class:** 3, PG III

**UN Number:** UN1866

**DOT Labels Required (49CFR172.101):** Flammable Liquid

**Hazardous Substance (49CFR172.101):** None

**Reportable Quantity:** N/A

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**IATA Shipping Name:** Resin Solution, Flammable  
**IATA Hazard Class:** 3, PG III  
**UN Number:** UN1866  
**IATA Hazard Labels Required:** Flammable Liquid

<b>SECTION 15: REGULATORY INFORMATION</b>
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**U.S. FEDERAL REGULATIONS:**

**CERCLA 103 Reportable Quantity:** Not applicable

**SARA TITLE III:**

**Hazard Category for Section 311/312:** Acute 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:** All of the components of this product are listed on TSCA.

**STATE REGULATIONS:**

**California Proposition 65:** These products contain the following substances known to the State of California to cause cancer: None.

**INTERNATIONAL REGULATIONS:**

**European Community Labeling Classification:**

 Irritant	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.
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<b>SECTION 16: OTHER INFORMATION</b>
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**HMIS Ratings:** Health - 2                      Flammability - 3                      Reactivity - 0

**NEPA Ratings:** Health - 2                      Flammability - 3                      Reactivity - 0

**MSDS Revision History:**  
 8/28/07: New MSDS

**EU Classes and Risk Phrases for Reference (See Sections 2 and 3):**

Xi Irritant  
 R10 Flammable  
 R36 Irritating to eyes.

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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 shall not be held liable for any damage resulting from handling or from contact with the above product.

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