

**BREWER SCIENCE INC.
SAFETY DATA SHEET**

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

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

1.1 Product Identifier:

Trade Name: ProTEK®B3 Primer

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Product Use: Primer

Uses Advised Against: None

1.3 Details of the Supplier of the Safety Data Sheet:

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

Sales Office:
Brewer Science, Limited
North Mill, 2nd Floor
Darley Abbey Mills
Derby, England DE22 1DZ
+44 1332 545888
+44 1332.545878
msds@brewerscience.com

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

1.4 Emergency Telephone Number:

Emergency Spill Information: Chemtrec Domestic North America: (800) 424-9300
Chemtrec International: (703) 527-3887
Chemtrec Taiwan: 00801-14-8954
China Chemical Accident Emergency Rescue Hotline 0532-83889090

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

GHS Classification:

Flammable Liquid Category 3 (H226)
Specific Target Organ Toxicity Single Exposure Category 3 (H336)

EU Classification:

Flammable R10, R67

2.2 Label Elements:

Warning!



Contains: 1-Methoxy-2-propanol

Hazard Phrases

H226	Flammable liquid and vapor.
H336	May cause drowsiness or dizziness.

Precautionary Phrases

P210	Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
P233	Keep container tightly closed.

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Approved By:	Safety & Environmental Units
Issue/Revision Date:	F.7.6.3183.H/ 4/21/15
Date of Latest Review:	4/21/15

P240	Ground or bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, or lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist, vapors, or spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection, and face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or physician if you feel unwell.
P370 + P378	In case of fire: Use water fog or spray, alcohol foam, carbon dioxide or dry chemical to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local and national regulations.

2.3 Other Hazards: None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture:

Chemical Name	CAS#	EINECS#	ENCS/ ISHL	EU Classification (67/548/EEC)	CLP Annex VI Classification	%
1-Methoxy-2-propanol (Propylene glycol monomethyl ether, PGME)	107-98-2	203-539-1	(2)-404 / (2)-404	R10, R67	Flam. Liq. Cat 3 (H226), STOT SE Cat 3 (H336)	95-100

See Section 16 for further information on EU and GHS Classification.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye: Rinse thoroughly with water, while holding the eye lids open to be sure the material is washed out. Get medical attention if irritation or symptoms of exposure develop.

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 medical attention if symptoms of exposure persist.

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

4.2 Most Important symptoms and effects, both acute and delayed: May cause eye, skin, and respiratory irritation. May cause headache, dizziness, nausea and other symptoms of central nervous system depression by inhalation.

4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical attention is not required.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media: Use water fog or spray, alcohol foam, carbon dioxide or dry chemical.

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5.2 Special Hazards Arising from the Substance or Mixture:

Unusual Fire and Explosion 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. As with any ether, 1-methoxy-2-propanol may form highly reactive peroxides upon contact with air.

Combustion Products: Oxides of carbon, silicon, nitrogen and unknown materials.

5.3 Advice for Fire-Fighters:

Wear an approved, positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

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.

6.2 Environmental Precautions:

Report spills and releases as required to appropriate authorities.

6.3 Methods and Material for Containment and Cleaning Up:

Cover with an inert absorbent material and collect into an appropriate container for disposal.

6.4 Reference to Other Sections:

Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe 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.

7.2 Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, dry, well-ventilated location away from incompatible materials. Keep containers closed when not in use.

7.3 Specific end use(s): Industrial use only

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	Exposure Limits
1-Methoxy-2-propanol	50 ppm TWA, 100 ppm STEL ACGIH TLV 100 ppm TWA, 200 ppm STEL DFG MAK 100 ppm UK-TWA, 150 ppm UK-STEL skin 100 ppm EU-TWA, 150 ppm EU STEL skin 100 ppm TWA, 150 ppm STEL South Korea

8.2 Exposure Controls:

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.

Personal Protective Equipment:

Respiratory Protection: If needed, an approved respirator with organic vapor cartridges may be used. For higher exposures, 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 such as 4H or Silver Shield gloves are suggested to prevent prolonged skin contact.

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Contact your glove supplier for selection assistance. In Europe follow EN 374.

Eye Protection: Chemical safety glasses or goggles recommended where splashing is possible. In Europe follow EN 166.

Other Protective Equipment: Impervious clothing is required to prevent skin contact and contamination of personal clothing. In Europe follow EN 13034. An eye wash facility and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties:

Appearance: Colorless liquid	Vapor Density: Greater than 3
Odor: Solvent odor	Specific Gravity: No data available
Odor Threshold: No data available	Solubility: Partially soluble
pH: No data available	Octanol/Water Partition Coefficient: No data available
Melting Point/Freezing Point: No data available.	Autoignition Temperature: No data available
Initial Boiling Point/Range: 114 - 118°C (PGME)	Decomposition Temperature: No data available
Flash Point: 32°C (90°F) (PGME)	Viscosity: No data available
Evaporation Rate: No data available	Explosive Properties: Not explosive
Flammable Limits: LEL: 1.3 vol % (PGME) UEL: 13.8 vol % (PGME)	Oxidizing Properties: Not an oxidizer
Vapor Pressure: 10.9 mmHg @ 25°C (PGME)	Relative Density: No data available
Molecular Formula: Mixture	Flammability (solid, gas): Not applicable
Molecular Weight: Mixture	

9.2 Other Information: None available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Not reactive

10.2 Chemical Stability: Stable under normal handling and storage conditions.

10.3 Possibility of Hazardous Reactions: Will not occur.

10.4 Conditions to Avoid: Keep away from heat, sparks, flames and other sources of ignition.

10.5 Incompatible Materials: Strong oxidizing agents, acids and bases.

10.6 Hazardous Decomposition Products: Oxides of carbon, silicon, nitrogen and unknown materials.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eye: May cause eye irritation. Corneal injury is unlikely.

Skin: May cause irritation with prolonged or repeated exposure. 1-Methoxy-2-propanol may be absorbed through the skin causing effects similar to those described under inhalation.

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 of 1-methoxy-2-propanol may cause slight kidney changes based on studies with laboratory animals.

Acute Toxicity Values:

1-Methoxy-2-propanol: Oral rat LD50 - 5660 mg/kg; Inhalation rat LC50 - 10,000 ppm/5 hr; Skin rabbit LD50 - 13 gm/kg

Skin corrosion/irritation: 1-Methoxy-2-propanol: Non-irritating to rabbit skin.

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Eye damage/irritation: 1-Methoxy-2-propanol: Slightly irritating to rabbit eyes.

Respiratory Irritation: No data available.

Respiratory Sensitization: No data available.

Skin Sensitization: 1-Methoxy-2-propanol: Non-sensitizing in guinea pig maximization test.

Germ Cell Mutagenicity: 1-Methoxy-2-propanol: Negative in Ames test, in vitro cytogenic assay and unscheduled DNA synthesis.

Carcinogenicity: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH and the EU CLP.

Reproductive Toxicity: 1-Methoxy-2-propanol: No maternal or fetal effects in rats at inhalation exposures of 600 ppm. Not teratogenic in rats or rabbits at inhalation exposure of 3000 ppm.

Specific Target Organ Toxicity:

Single Exposure: No data available

Repeat Exposure: 1-Methoxy-2-propanol: No adverse effects observed in a 13 week inhalation study in rats and rabbits -NOAEL 1000 ppm. Liver and kidney effects were observed in a 13 week oral feeding study with rats - LOAEL 459.5 mg/kg/day. No adverse effects were observed in a 90 day dermal study in rabbits – NOEAL 1838 mg/kg/day.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

1-Methoxy-2-propanol: 96 hr LC50 Fathead minnow - 20800 mg/L; 48 hr LC50 Daphnia Magna - 23300 mg/L

12.2 Persistence and Degradability: 1-Methoxy-2-propanol: Readily biodegradable - 90% after 29 days.

12.3 Bioaccumulative Potential: No data available

12.4 Mobility in Soil: No data available

12.5 Results of PBT and vPvB Assessment: No data available

12.6 Other Adverse Effects: Not applicable

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

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

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	UN3092	1-Methoxy-2-propanol	3	PG III	Not applicable
Canadian TDG	UN3092	1-Methoxy-2-propanol	3	PG III	Not applicable
EU ADR/RID	UN3092	1-Methoxy-2-propanol	3	PG III	Not applicable
IMDG	UN3092	1-Methoxy-2-propanol	3	PG III	Not applicable
IATA/ICAO	UN3092	1-Methoxy-2-propanol	3	PG III	Not applicable

14.6 Special Precautions for User: Not applicable

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

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SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:

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, 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: This product contains the following substances known to the State of California to cause cancer and/or reproductive harm: None known.

INTERNATIONAL REGULATIONS:

EUROPEAN REGULATIONS

REACH: Brewer products comply with REACH regulation as applicable. For more information, contact the Brewer REACH coordinator.

SVHC: This product contains the following Substances of Very High Concern (SVHCs): None.

JAPANESE REGULATIONS

Industrial Safety and Health Law:

Manufacture Prohibited	Manufacture Allowed	Notification Obligation	Labeling Obligation	MSDS Obligation	Dangerous Substance
Not applicable	Not applicable	Not applicable	Not applicable	≥ 1 (1-Methoxy-2-propanol)	Flammable Substance-Group 4

Poisonous and Deleterious Substances Control Law (PDSCL): None of the chemicals are listed.

Pollutant Release and Transfer Register (PRTP): None of the chemicals are listed.

Law Concerning the Protection of the Ozone Layer: None of the chemicals are listed.

Fire Service Law: Group 4 - Flammable liquids (2nd Class petroleum)

Ship Safety Act: Flammable liquid (Hazard Regulation Article 3, hazardous substance notice appendix 1)

Aviation Law: Flammable liquid (regulation Article 194, hazardous substance notice appendix 1)

Air Pollution Control Law: None of the chemicals are listed.

Water Pollution Control Act: None of the chemicals are listed.

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Soil Contamination Countermeasures Law: None of the chemicals are listed.

Offensive Odor Control Law: None of the chemicals are listed.

Act on Prevention of Marine Pollution and Maritime Disaster: None of the chemicals are listed.

15.2 Chemical Safety Assessment: No data available

SECTION 16: OTHER INFORMATION

HMIS Ratings: Health - 1 Flammability - 3 Physical Hazard - 0

NFPA Ratings: Health - 1 Flammability - 3 Instability - 0

SDS Revision History:

8/28/07: New SDS.

2/8/08: Updated format for REACH, updated wording for Carcinogen status, CERCLA, and California Proposition 65 statement, removed references to NIOSH, changed MSDS to SDS.

2/9/09: Added ACGIH to carcinogen status.

12/14/09: Updated EU Classification in Section 3. Updated PGME Exposure limits in Section 8. Updated Physical data in Section 9. Updated Acute toxicity value for Skin rabbit in Section 11. Rearranged order of components.

9/11/10: Updated EU Classifications in sections 2,3,15,16. Added Chronic Health as Hazard Category in section 15. Complete review of SDS. Converted SDS to a Universal GHS format

12/20/12: Updated format, Section 3: Composition and Section 9: Physical properties.

9/8/14: Updated Section 1: Removed date of preparation, Footer, Section 4: First aid, Section 6.4: Added reference to other sections, Section 8: Exposure limits, Section 10: Chemical stability, Section 11: Potential health effects, Section 15: Updated section 311/31, added SVHC to European regulations, and Section 16: Updated HMIS/NFPA ratings.

4/21/15: Updated Section 1: added UK address and Section 8: CEN references.

GHS Classification for Reference (See Sections 2 and 3):

Flam. Liq. Cat 3 Flammable Liquid Category 3

STOT SE Cat 3 Specific Target Organ Toxicity Single Exposure Category 3

H226 Flammable liquid and vapor.

H336 May cause drowsiness or dizziness.

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

R10 Flammable

R67 Vapors may cause drowsiness and dizziness.

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

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