BREWER SCIENCE INC.
MATERIAL SAFETY DATA SHEET

This Material 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: ProLIFT™ Remover 100

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

Information Phone Number: (573) 364-0300 **Fax:** (573) 368-3318
Emergency Phone Number:
Chemtrec Domestic North America: 800-424-9300
Chemtrec International: 703-527-3887
MSDS Date of Preparation: 05/19/06
Product Use: High Temperature Polyamide Release Solution

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS# / EINECS#	%	EU Classification (67/548/EEC)
Sodium Hydroxide	1310-73-2/215-185-5	1-5	C R34
Sodium Silicate	1344-09-8/215-687-4	1-5	Xi R36/37/38
Additive	Proprietary	<0.1	Xi R36/3738
Additive	Proprietary	<0.1	Xi R36/37/38
Ethylene Glycol	107-21-1/203-473-3	10-20	Xn R22
Deionized Water	7732-18-5/231-731-2	75-85	Not Applicable

See Section 16 for further information on EU Classification.

SECTION 3: HAZARDS IDENTIFICATION

Clear liquid.

EMERGENCY OVERVIEW: Combustible solution. Severe eye and skin irritant. May cause chemical burns. Inhalation of vapors or mists may cause mucous membrane and respiratory irritation. May be harmful if swallowed or in contact with the skin.

EU Preparation Classification (1999/45/EC): Corrosive (C) Harmful (Xn) R22 R34

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. Get immediate medical attention.

Ingestion: If the victim is conscious, rinse out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

SECTION 5: FIRE AND EXPLOSION DATA

Flash Point: 111°C (232°F) (Ethylene Glycol) **Flammable Limits:** **LEL:** 3.2 vol % (Ethylene Glycol)

UEL: 15.3 vol % (Ethylene Glycol)

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

Special Fire Fighting Procedures: Wear NIOSH 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.

Hazardous Decomposition Products: Oxides of carbon and unknown materials.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill: 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. Avoid sources of ignition. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep containers closed when not in use.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	Exposure Limits
Sodium Hydroxide	2 mg/m^3 TLV-Ceiling (C), 2 mg/m^3 PEL 2 mg/m^3 Ceiling EU OEL
Sodium Silicate	None Established (PEL/TLV)
Additive	None Established (PEL/TLV)
Additive	None Established (PEL/TLV)
Ethylene Glycol	100 mg/m^3 TLV-Ceiling (C) 20 ppm TWA, 40 ppm STEL EU OEL
Water	None Established (PEL/TLV)

Ventilation: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: If needed, a NIOSH approved respirator with organic vapor cartridges may be used. For higher exposures (greater than 10 times the TLV), a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 or other applicable regulations and good Industrial Hygiene practice.

Skin Protection: Impervious gloves such as rubber are recommended.

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: Colorless liquid.

pH: Not determined (alkaline)
Boiling Point: 196-198°C (Ethylene Glycol)
Vapor Pressure: 0.08 mmHg @ 25°C (Ethylene Glycol)
Vapor Density: >2 (Solvent)

Specific Gravity: >1
Melting Point: Not Available
Water Solubility: 100%
Evaporation Rate: Not available

SECTION 10: STABILITY AND REACTIVITY

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

Incompatibility/Conditions to Avoid: Strong oxidizing agents and strong acids.

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 severe irritation with pain and redness. Corneal injury is possible.

Skin: May cause redness, irritation and dryness. Prolonged or repeated exposure may cause chemical burns.

Inhalation: Inhalation of vapors, mists or aerosols may cause mucous membrane and respiratory irritation.

Ingestion: Swallowing may cause severe mouth, throat and gastrointestinal irritation and/or chemical burns. Ingestion of ethylene glycol may result in neurological, cardiopulmonary and renal complications including, but not limited to CNS depression, heart failure and renal (kidney) failure.

Chronic Hazards: None known. Primarily an acute hazard.

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

Medical Conditions Aggravated by Exposure: Pre-existing eye, skin, cardiopulmonary or kidney disorders.

Acute Toxicity Values:
Sodium Hydroxide: Skin rabbit LD50: 1350 mg/kg
Sodium Silicate: No toxicity data is available.
Additive: Oral rat LD50: 1500-3200 mg/kg
Additive: Oral rat Ld50: 4150 mg/kg
Ethylene Glycol: Oral rat LD50: 5500 mg/kg; Oral human LDLo: 398-1500 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Sodium Hydroxide: Lethal, Silver Salmon, 20 ppm
Ethylene Glycol: LC50 Goldfish: 27,500 mg/L/96 h

SECTION 13: DISPOSAL INFORMATION

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

SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name: Corrosive Liquid, Basic, Organic, n.o.s. (Contains Sodium Hydroxide) ERG #153
DOT Hazard Class: 8, PG III
UN Number: UN3267
DOT Labels Required (49CFR172.101): Corrosive

Hazardous Substance (49CFR172.101): Sodium Hydroxide, Ethylene Glycol
Reportable Quantity: Product – 20,000 lbs (Based on the RQ of 1,000 lbs. For sodium hydroxide, 5% max.); 25,000 lbs (Based on the RQ of 5,000 lbs. For ethylene glycol, 20% max.)

IATA Shipping Name: Corrosive Liquid, Basic, Organic, n.o.s. (Contains Sodium Hydroxide)
IATA Hazard Class: 8, PG III
UN Number: UN3267
IATA Hazard Labels Required: Corrosive

SECTION 15: REGULATORY INFORMATION

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: Ethylene Glycol 107-21 10-20%

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

STATE REGULATIONS:

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: Ethylene Oxide (<0.00001%), Propylene Oxide (<0.0001%) and 1,4-Dioxane (<0.00002%)

INTERNATIONAL REGULATIONS:

European Community Labeling: Contains sodium hydroxide and ethylene glycol

 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. S60 This material and its container must be disposed of as hazardous waste.

SECTION 16: OTHER INFORMATION

HMIS Ratings: Health - 3 Flammability - 0 Reactivity - 0

NFPA Ratings: Health - 3 Flammability - 0 Reactivity - 0

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):
C Corrosive
Xi Irritant
Xn Harmful
R22 Harmful if swallowed.
R34 Causes burns.

Prepared By:	Safety & Environmental Units
Approved By:	RMG/Safety & Environmental Units
Issue/Revision Date	F.7.6.2699.A / 5/19/06

R36/37/38 Irritating to eyes, respiratory system and skin.

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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.