



## Material Safety Data Sheet

# PRO-BXL-STD

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

### 1. Product and Company Identification

<b>Material name</b>	<b>PRO-BXL-STD</b>
<b>Version #</b>	08
<b>Issue date</b>	June-20-2012
<b>Revision date</b>	June-20-2012
<b>Supersedes date</b>	June-20-2012
<b>CAS #</b>	Mixture
<b>Product use</b>	Crosslinker
<b>Manufacturer information</b>	Clearwater International LLC. 4420 Flores Rd Elmendorf, TX 78112 United States Chemtec 1-800-424-9300 Chemtec INTL +1-703-527-3887

<b>Supplier information</b>	Producers Service Corp. 109 South Graham St. Zanesville, OH 43701 US
<b>Supplier emergency telephone number(s)</b>	24hr customer Service 740-454-6253

### 2. Hazards Identification

<b>Emergency overview</b>	DANGER -- CORROSIVE  Causes skin and eye burns.  Harmful by inhalation, in contact with skin and if swallowed. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Eye contact. Skin contact. Ingestion. Inhalation.
<b>Eyes</b>	Corrosive to the eyes and may cause severe damage including blindness. Do not get this material in contact with eyes.
<b>Skin</b>	Causes chemical burns. Do not get this material in contact with skin.
<b>Inhalation</b>	Causes burns. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Ingestion</b>	Ingestion causes burns of the upper digestive and respiratory tracts. Harmful if swallowed. Do not ingest.
<b>Target organs</b>	Central nervous system. Eyes. Lungs. Respiratory system. Skin.

**Potential environmental effects**

Components of this product are hazardous to aquatic life.

**3. Composition / Information on Ingredients**

Components	CAS #	Percent
Potassium Borate	20786-60-1	10 - 20
Ethylene Glycol	107-21-1	7 - 13
Potassium Hydroxide	1310-58-3	1 - 5

**4. First Aid Measures****First aid procedures****Eye contact**

Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention immediately.

**Skin contact**

Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. Get medical attention immediately.

**Inhalation**

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim inhaled the substance. Get medical attention immediately.

**Ingestion**

Rinse mouth. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.

**Notes to physician**

In case of shortness of breath, give oxygen. Keep victim warm. Symptoms may be delayed.

**General advice**

In case of shortness of breath, give oxygen. Keep victim warm. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**5. Fire Fighting Measures****Flammable properties**

Containers may explode when heated.

**Extinguishing media****Suitable extinguishing media**

Water. Water spray. Water fog. Alcohol foam. Polymer foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media**

Do not use a solid water stream as it may scatter and spread fire.

**Protection of firefighters****Protective equipment and precautions for firefighters**

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**Fire fighting equipment/instructions**

In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Move containers from fire area if you can do it without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

**Specific methods**

In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. In the event of fire, cool tanks with water spray.



## 6. Accidental Release Measures

### Personal precautions

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep out of low areas. Ventilate closed spaces before entering them.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

### Methods for containment

Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

### Methods for cleaning up

Should not be released into the environment.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.

### Other information

Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

### Handling

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Wash thoroughly after handling. Avoid prolonged exposure. Do not empty into drains. Avoid release to the environment.

### Storage

Keep containers tightly closed in a cool, well-ventilated place. Store in a closed container away from incompatible materials. Store in accordance with local/regional/national/international regulation.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethylene Glycol (107-21-1)	Ceiling	100 mg/m <sup>3</sup>	Aerosol.
Potassium Hydroxide (1310-58-3)	Ceiling	2 mg/m <sup>3</sup>	

### Engineering controls

Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

#### Eye / face protection

Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

Wear protective gloves. Wear suitable protective clothing. Closed-toe shoes recommended. Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.

#### Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**General hygiene considerations**

Do not get this material in your eyes, on your skin, or on your clothing. Wash hands before breaks and immediately after handling the product. When using do not eat or drink. Handle in accordance with good industrial hygiene and safety practice.

**9. Physical & Chemical Properties**

<b>Appearance</b>	Clear - Hazy Liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Orange - Red.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	> 12 (50/50)
<b>Vapor pressure</b>	0.1 hPa estimated
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	565.88 °F (296.6 °C)
<b>Melting point/Freezing point</b>	297.2 °F (147.314541495 °C) / 297.17 °F (147.31 °C) estimated
<b>Solubility (water)</b>	Not available.
<b>Specific gravity</b>	1.30 - 1.33
<b>Relative density</b>	Not available.
<b>Flash point</b>	> 393.80 °F (> 201.00 °C)
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	748.00 °F (397.78 °C) estimated
<b>VOC</b>	10.73 % estimated
<b>Percent volatile</b>	54.4 % estimated
<b>Other data</b>	
<b>Density</b>	10.84 - 11.10 lb/gal
<b>Flammability class</b>	Combustible IIIB estimated
<b>Flash point class</b>	Combustible IIIB

**10. Chemical Stability & Reactivity Information**

<b>Chemical stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	Heat, flames and sparks. Avoid high temperatures.
<b>Incompatible materials</b>	Amines. Isocyanates. Strong oxidizing agents. Strong acids. Caustics.
<b>Hazardous decomposition products</b>	Not available.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.



## 11. Toxicological Information

### Toxicological data

Product	Species	Test Results
PRO-BXL-STD (Mixture)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	12000 mg/l, estimated
<i>Oral</i>		
LD50	Rat	6808 mg/kg

Components	Species	Test Results
Ethylene Glycol (107-21-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	9530 mg/kg
<i>Oral</i>		
LD50	Mouse	14.6 g/kg
	Rat	4000 mg/kg
Potassium Hydroxide (1310-58-3)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	214 mg/kg 1.23 g/kg

**Sensitization** Not expected to be hazardous by OSHA criteria.

### Carcinogenicity

#### ACGIH Carcinogens

Ethylene Glycol (CAS 107-21-1)

A4 Not classifiable as a human carcinogen.

**Skin corrosion/irritation** Hazardous by OSHA criteria. Corrosive effects.

**Neurological effects** Excessive exposure may cause central nervous system effects such as dizziness, drowsiness or headaches.

## 12. Ecological Information

### Ecotoxicological data

Product	Species	Test Results	
PRO-BXL-STD (Mixture)			
Algae	IC50	Algae	305 mg/L, 72 Hours, estimated
Crustacea	EC50	Daphnia	7000 mg/L, 48 Hours, estimated
Fish	LC50	Fish	, 96 Hours



Components	Species	Test Results
Ethylene Glycol (107-21-1)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 8050 mg/l, 96 hours
Potassium Hydroxide (1310-58-3)		
<b>Aquatic</b>		
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> ) 80 mg/l, 96 hours
<b>Ecotoxicity</b>	Because of the high pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.	
<b>Persistence and degradability</b>	Not available.	
<b>Bioaccumulation / Accumulation</b>		
<b>Bioaccumulative potential</b>		
<b>Octanol/water partition coefficient log Kow</b>		
Ethylene Glycol		-1.36
<b>Partition coefficient</b>		
Ethylene Glycol		-1.36

### 13. Disposal Considerations

**Waste codes** D002: Waste Corrosive material [pH  $\leq$ 2 or  $\geq$ 12.5, or corrosive to steel]

**Disposal instructions** Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

### 14. Transport Information

**General** DOT: This product contains Potassium hydroxide, Reportable Quantity (RQ) = 1000 pounds

#### DOT

**Basic shipping requirements:**

**UN number** UN3266  
**Proper shipping name** Corrosive liquid, basic, inorganic, n.o.s. (Potassium Hydroxide)  
**Hazard class** 8  
**Packing group** III

**Additional information:**

**Special provisions** IB3, T7, TP1, TP28  
**Packaging exceptions** 154  
**Packaging non bulk** 203  
**Packaging bulk** 241

#### DOT

#### BULK

**Basic shipping requirements:**

**UN number** UN3266  
**Proper shipping name** Corrosive liquid, basic, inorganic, n.o.s. (Potassium Hydroxide)  
**Hazard class** 8  
**Packing group** III



**Additional information:**

<b>Special provisions</b>	IB3, T7, TP1, TP28
<b>Packaging exceptions</b>	154
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	241

**TDG**

<b>Proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium Hydroxide)
<b>Hazard class</b>	8
<b>UN number</b>	UN3266
<b>Packing group</b>	III
<b>Special provisions</b>	16

**IATA**

<b>UN number</b>	UN3266
<b>UN proper shipping name</b>	Corrosive liquid, basic, inorganic, n.o.s. (Potassium Hydroxide)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>ERG code</b>	8L

**IMDG**

<b>UN number</b>	UN3266
<b>UN proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium Hydroxide)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	III
<b>EmS No.</b>	F-A, S-B

**DOT; DOT BULK**



**IATA; IMDG; TDG**





## 15. Regulatory Information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Not regulated.

### DEA Essential Chemical Code Number

Not regulated.

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

### DEA Exempt Chemical Mixtures Code Number

Not regulated.

### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Ethylene Glycol (CAS 107-21-1) 1.0 %

### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Ethylene Glycol (CAS 107-21-1) Listed.

### CERCLA (Superfund) reportable quantity

Ethylene Glycol: 5000.0000

Potassium Hydroxide: 1000.0000

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### Section 302 extremely hazardous substance

No

#### Section 311 hazardous chemical

No

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No



Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - New Jersey RTK - Substances: Listed substance**

Ethylene Glycol (CAS 107-21-1)	Listed.
Potassium Hydroxide (CAS 1310-58-3)	Listed.

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

Ethylene Glycol (CAS 107-21-1)	Listed.
Potassium Hydroxide (CAS 1310-58-3)	Listed.

## 16. Other Information

**HMIS® ratings** Health: 3  
Flammability: 1  
Physical hazard: 0  
Personal protection: X

**NFPA ratings** Health: 3  
Flammability: 1  
Instability: 0

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**This data sheet contains changes from the previous version in section(s):** This document has undergone significant changes and should be reviewed in its entirety.