



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material Name BXL-3
Revision Date 12/21/2011
Version # 3
Product Use Cross-linking Agent
Manufacturer / Supplier FRAC TECH SERVICES LLC
2500 HWY 62 West
Chickasha, OK 73018
US
General information: 1-405-222-2300
Emergency 24 Hour Emergency: INFOTRAC: 1-800-535-5053

2. Hazards Identification

Physical State Liquid.
Appearance Tan Liquid
Emergency Overview Not available.
OSHA regulatory status Not available.
Routes of exposure
Eyes Not available.
Skin Not available.
Inhalation Not available.
Ingestion Not available.
Potential environmental effects Not available.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Crystalline Silica	14808-60-7	< 0.2
Proprietary Materials	Proprietary	Proprietary

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye Contact Rinse opened eye under running water.
Skin Contact Wash with water and soap and rinse thoroughly.
Inhalation Remove to fresh air and rest.
Ingestion Rinse out mouth and then drink plenty of water or milk. If you feel unwell seek medical attention.
Notes to physician Not available.

5. Fire Fighting Measures

Flammable Properties Non flammable.

Extinguishing media**Suitable extinguishing media**

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Unsuitable extinguishing media

Not available.

Specific Hazards arising from the Chemical

Carbon monoxide and/or carbon dioxide may be released.

Firefighting equipment / instructions

Wear self contained respiratory protective device

Specific Methods

Not available.

Hazardous combustion products

Not available.

6. Accidental Release Measures**Personal precautions**

Keep floors clean as surfaces subject to spills from this product can become slippery.

Methods for cleaning up

Absorb with liquid binding material (sand, diatomite, acid binders, universal binders).

7. Handling and Storage**Handling**

Ensure good ventilation/exhaustion at the workplace.

Storage

Store only in original receptacle. Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight. Keep floors clean as surfaces subject to spills from the product can become slippery.

8. Exposure Controls / Personal Protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Crystalline Silica	Not available.	0.025	Not available.	Not available.
Proprietary Materials	Not available.	Not available.	Not available.	Not available.

US. OSHA Table Z-1 Limits for Air Contaminates (29 CFR 1910.1000)

Components	PEL	
	ppm	mg/m3
Crystalline Silica	10 (respirable %SiO2 + 2) 30 (total %SiO2 + 2) 0.1 (100% SiO2)	Not available.
Proprietary Materials	Not available.	Not available.

Canada. Alberta OELs (Occupational Health Safety Code, Schedule 1, Table 2)

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Crystalline Silica	Not available.	Not available.	Not available.	Not available.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Crystalline Silica	Not available.	Not available.	Not available.	Not available.
Proprietary Materials	Not available.	Not available.	Not available.	Not available.

Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents) Components

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Crystalline Silica	Not available.	Not available.	Not available.	Not available.
Proprietary Materials	Not available.	Not available.	Not available.	Not available.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) Components

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Crystalline Silica	Not available.	Not available.	Not available.	Not available.
Proprietary Materials	Not available.	Not available.	Not available.	Not available.

Mexico. Occupational Exposure Limit Values

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Crystalline Silica	Not available.	Not available.	Not available.	Not available.
Proprietary Materials	Not available.	Not available.	Not available.	Not available.

Engineering controls None

Personal protective equipment

Eye / face protection Safety glasses.

Skin protection	Nitrile rubber, Chloroprene rubber, Butyl rubber.
Respiratory protection	Normally not needed. Use supplied air respirator in closed areas.
General hygiene consideration	Not available.

9. Physical and Chemical Properties

Appearance:	Tan color
Color	Tan
Odor	Slight
Odor threshold	Not available.
Physical State	Liquid
Form	Liquid
pH	Not available.
Melting point	Not determined.
Freezing point	< -4 °F (< -20°C)
Boiling point	Not determined.
Flash point	Not available.
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific Gravity	1.42g/ml
Solubility (water)	Sparingly
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Bulk Density	11.6 lb/gal
VOC	Not available.
Viscosity	Not available.
Percent volatile	Not available.

10. Chemical Stability Reactivity Information

Chemical Stability	Stable
Conditions to avoid	None known.
Incompatible material	Sulfuric acid, hydrochloric acid or other strong inorganic acids.
Hazardous decomposition products	Carbon monoxide and/or carbon dioxide.
Possibility of hazardous reaction	None known.

11. Toxicology Information

Toxicological Data

Components

Crystalline Silica
Proprietary Materials

Test Results

None known.
None known.

Sensitization

Not available.

Carcinogenicity

Crystalline Silica
Proprietary Materials

Not available.
Not available.

Epidemiology

Not available.

Mutagenicity

Not available.

Reproductive effects

Not available.

Teratogenicity

Not available.

Further Information

General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12. Ecological Information

Ecotoxicological data

Components

Crystalline Silica
Proprietary Materials

Test Results

Not available.
EC50/72h=2500 mg/l (alga)
LC50/48h=500 mg/l (daphnia)
LC50/96h=1600 mg/l (fish) and 2500 mg/l (crustaceans)

Ecotoxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulation / Accumulation

Not available.

Mobility in environmental media

Not available.

Partition coefficient (n-octanol/water)

Not available.

13. Disposal Considerations

Waste codes

Not available.

Disposal instructions

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

Contaminated packaging

Not available.

14. Transport Information

DOT

UN number
Proper shipping name Not Regulated
Hazard class
Packing Group
Labels required
DOT Reportable Quantity: Not available.
Additional information
Special provisions
Packaging exceptions
Packaging non bulk
Packaging bulk
ERG number

IATA

UN number
Proper shipping name Not available.
Hazard class
Packing group
Additional information
ERG code

IMDG

UN number
Proper shipping name Not available.
Hazard class
Packing group
EmS No
IMDG Additional information:

15. Regulatory Information

US federal regulation

CERCLA (Superfund) Reportable Quantity: None

Superfund amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories	Immediate Hazard:	No
	Delayed Hazard:	No
	Fire Hazard:	No
	Pressure Hazard:	No
	Reactivity Hazard:	No

Section 302 extremely hazardous substance: None

Section 311 hazardous chemical: None

Inventory Status

Country	Inventory Name	On Inventory *
Australia	AICS	No
Canada	DSL	No
Canada	NDSL	No
China	IECSC	No
Europe	EINECS	No
Europe	ELINCS	No
Japan	ENCS	No
Korea	ECL	No
New Zealand	NZI	No
United States / Puerto Rico	TSCA	Yes
Phillipines	PICCS	No

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

WHMIS Information Not available.

State Regulation Not available.

16. Other Information

Further Information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
 Health: 1
 Flammability: 1
 Physical Hazard: 0
 A HMIS® rating including an * indicates a chronic hazard.

NFPA ratings
 Health: 1
 Flammability: 1
 Instability: 0

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Issue Date 12/21/2011