

SAFETY DATA SHEET**1. Product and Company Identification**

Material name	B-220 BONDER
Version #	01
Issue date	11-15-2012
Revision date	11-15-2012
Supersedes date	11-22-2011
Chemical name	Synthetic Polybutadiene Rubber
Chemical description	Bonder
CAS #	Mixture
Product code	903-0017
Product use	Industrial Leak Sealant
Manufacturer information	
Manufacturer/Supplier	Team Industrial Services, Inc. 200 Hermann Drive, Alvin, Texas 77511
Emergency Contact	CHEMTREC - 24 HOURS USA: CHEMTREC: 800-424-9300 International: 703-527-3887 (Collect)

2. Hazards Identification

Physical state	Liquid.
Appearance	Viscous, caramel - colored liquid with ammonia odor.
Emergency overview	DANGER Combustible liquid. May cause eye, skin and digestive tract burns. May cause severe respiratory tract irritation. Harmful if inhaled, absorbed through skin, or swallowed. May cause allergic skin reaction. Contains material which may cause lung, liver, kidney, heart, blood and central nervous system damage.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	May cause eye burns. May cause permanent eye injury.
Skin	May cause skin burns. Harmful if absorbed through skin. Components of the product may be absorbed into the body through the skin. May cause allergic skin reaction. The product contains organic solvents which may be absorbed into the body by skin contact and cause permanent damage to the nervous system, including the brain.
Inhalation	May cause severe respiratory tract irritation. May cause burns in mucous membranes, throat, esophagus and stomach. Harmful if inhaled. When cured: Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the respiratory tract.
Ingestion	May cause digestive tract burns. Harmful if swallowed. Components of the product may be absorbed into the body by ingestion.
Target organs	Blood. Cardiac. Central nervous system. Digestive tract.. Eyes. Kidneys. Liver. Mucous membranes. Respiratory system. Skin.
Chronic effects	Can cause kidney, liver, lung and central nervous system damage. Danger of serious damage to health by prolonged exposure. May cause allergic skin reaction.
Signs and symptoms	Unconsciousness. Coughing. Shortness of breath. Discomfort in the chest. Irritation of nose and throat. Symptoms include itching, burning, redness and tearing. Skin irritation.
Potential environmental effects	The product contains a substance which may be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Polymer	68683-29-4	50-80
Phenol	108-95-2	5-10
2-piperazin-1-ylethylamine	140-31-8	1-5
Diethylenetriamine	111-40-0	1-5
[(Dimethylamino)methyl]phenol	25338-55-0	<1

Composition comments All concentrations are in percent by weight.

4. First Aid Measures

First aid procedures

Eye contact	Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately! In case of allergic reaction or other skin disorders: Seek medical attention and bring along these instructions.
Inhalation	If breathing stops, provide artificial respiration. Get medical attention immediately.
Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water, if person is conscious. Only induce vomiting at the instruction of medical personnel. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.

Notes to physician Treat symptomatically.

General advice Chemical burns must be treated by a physician.

5. Fire Fighting Measures

Flammable properties Combustible liquid. Heated material: Vapors may travel to a source of ignition and flash back. If heated, volume and pressure increases strongly, resulting in explosion of container.

Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	No restrictions known.

Protection of firefighters

Specific hazards arising from the chemical	Solvent vapors may form explosive mixtures with air. During fire, gases hazardous to health may be formed.
Protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions Ventilate closed spaces before entering them. Containers should be cooled with water to prevent vapor pressure build up. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Evacuate area and fight fire from a safe distance. Stop leak if you can do so without risk. Move containers from fire area if you can do it without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous combustion products Carbon oxides. Formaldehyde. Nitrogen oxides (NOx).

6. Accidental Release Measures

Personal precautions Avoid inhalation of vapors and contact with skin and eyes. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the MSDS.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not contaminate water. Environmental manager must be informed of all major spillages.

Methods for containment Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Eliminate all ignition sources. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean contaminated surface thoroughly. Sweep up or vacuum up spillage and collect in suitable container for disposal. Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in Section 13 of the MSDS.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage**Handling**

Avoid inhalation of vapors and contact with skin and eyes. The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Avoid contact during pregnancy/while nursing. Use personal protective equipment as required. Use only with adequate ventilation.

Storage

Keep away from heat, spark, open flames and other sources of ignition. Keep away from sources of ignition - No smoking. Store in a cool, dry, well-ventilated place. Store in a closed container away from incompatible materials. Follow rules for combustible liquids.

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

Components	Type	Value
Diethylenetriamine (CAS 111-40-0)	TWA	1 ppm
Phenol (CAS 108-95-2)	TWA	5 ppm

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

Components	Type	Value
Phenol (CAS 108-95-2)	PEL	19 mg/m ³ 5 ppm

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

Components	Type	Value
Diethylenetriamine (CAS 111-40-0)	TWA	4.2 mg/m ³
Phenol (CAS 108-95-2)	TWA	1 ppm 19 mg/m ³ 5 ppm

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

Components	Type	Value
Diethylenetriamine (CAS 111-40-0)	TWA	1 ppm
Phenol (CAS 108-95-2)	TWA	5 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Diethylenetriamine (CAS 111-40-0)	TWA	1 ppm
Phenol (CAS 108-95-2)	TWA	5 ppm

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

Components	Type	Value
Diethylenetriamine (CAS 111-40-0)	TWA	4.2 mg/m ³
Phenol (CAS 108-95-2)	TWA	1 ppm 19 mg/m ³ 5 ppm

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Diethylenetriamine (CAS 111-40-0)	TWA	4.2 mg/m ³
Phenol (CAS 108-95-2)	STEL	1 ppm
		38 mg/m ³
	TWA	10 ppm
		19 mg/m ³
		5 ppm

Engineering controls Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of exposure. An eye wash and safety shower must be available in the immediate work area.

Personal protective equipment

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

Skin protection Wear suitable gloves. Butyl rubber gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Wear appropriate clothing to prevent possibility of skin contact.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance Viscous, caramel - colored liquid with ammonia odor.

Physical state Liquid.

Form Viscous liquid.

Color Caramel.

Odor Ammonia-like.

Odor threshold 5 ppm (Ammonia)

pH Not available.

Vapor pressure Not available.

Vapor density Not available.

Boiling point Not available.

Melting point/Freezing point Not available.

Solubility (water) Slight.

Specific gravity Not available.

Flash point 198 °F (92.2 °C) Closed Cup

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not available.

Auto-ignition temperature Not available.

Partition coefficient (n-octanol/water) No data available.

Other data

Flash point class Combustible IIIA

10. Chemical Stability & Reactivity Information

Chemical stability Material is stable under normal conditions.

Conditions to avoid Flames and sparks. Avoid static discharge and uncontrolled exposure to high temperatures. Contact with incompatible materials.

Incompatible materials Strong oxidizers, strong acids, and strong bases. Strong reducing agents.

Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx).
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Phenol (CAS 108-95-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	850 mg/kg
<i>Oral</i>		
LD50	Rat	530 mg/kg
Sensitization	May cause allergic skin reaction.	
Acute effects	May cause eye, skin and respiratory tract irritation. May cause severe respiratory tract irritation. Harmful if inhaled, absorbed through skin, or swallowed. Contains material which may cause lung, liver, kidney, heart, blood and central nervous system damage.	
Local effects	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Components of the product may be absorbed into the body by inhalation, ingestion and through the skin.	
US. ACGIH Threshold Limit Values		
Diethylenetriamine (CAS 111-40-0)	Can be absorbed through the skin.	
Phenol (CAS 108-95-2)	Can be absorbed through the skin.	
Chronic effects	Danger of serious damage to health by prolonged exposure. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.	
Carcinogenicity	Not classified.	
ACGIH Carcinogens		
Phenol (CAS 108-95-2)	A4 Not classifiable as a human carcinogen.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Phenol (CAS 108-95-2)	3 Not classifiable as to carcinogenicity to humans.	
Epidemiology	None known.	
Mutagenicity	Contains a substance which may have a mutagenic effect. Suspected of causing genetic defects.	
Neurological effects	May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage.	
Reproductive effects	No data available.	
Teratogenicity	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.	
Symptoms and target organs	Corrosive. Prolonged contact causes serious eye and tissue damage. Symptoms include itching, burning, redness and tearing. Prolonged or repeated inhalation/ingestion may cause central nervous system, blood, lung, liver or kidney damage.	
Further information	No other specific acute or chronic health impact noted.	

12. Ecological Information

Ecotoxicological data

Components	Species	Test Results
2-piperazin-1-ylethylamine (CAS 140-31-8)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 1950 - 2460 mg/l, 96 hours
Ecotoxicity	The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.	
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
Persistence and degradability	No data available.	
Bioaccumulation / Accumulation	No data available.	

Partition coefficient	No data available.
Phenol	1.46
Mobility in environmental media	The product is slightly soluble in water. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

13. Disposal Considerations

Waste codes	D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
Disposal instructions	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Dispose of this material and its container to hazardous or special waste collection point.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT	Not regulated as a hazardous material by DOT.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
TDG	Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Phenol (CAS 108-95-2)
US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Spill: Reportable quantity	Phenol (CAS 108-95-2) 1000 LBS
US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Substance: Threshold planning quantity, lower value	Phenol (CAS 108-95-2) 500 LBS
US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Substance: Threshold planning quantity, upper value	Phenol (CAS 108-95-2) 10000 LBS
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration	Phenol (CAS 108-95-2) 1.0 %
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance	Phenol (CAS 108-95-2) Listed.
CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)	Phenol: 1000
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
Section 311/312 (40 CFR 370)	Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Not controlled

Canadian regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS status

Controlled

WHMIS classification

B3 - Combustible Liquids
D1A - Immediate/Serious-VERY TOXIC
D2B - Other Toxic Effects-TOXIC
E - Corrosive

WHMIS labeling



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)	Yes
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)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations

US - California Hazardous Substances (Director's): Listed substance

Diethylenetriamine (CAS 111-40-0) Listed.
Phenol (CAS 108-95-2) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

2-piperazin-1-ylethylamine (CAS 140-31-8) Listed.
Diethylenetriamine (CAS 111-40-0) Listed.
Phenol (CAS 108-95-2) Listed.

US. Massachusetts RTK - Substance List

2-piperazin-1-ylethylamine (CAS 140-31-8) Listed.
Diethylenetriamine (CAS 111-40-0) Listed.
Phenol (CAS 108-95-2) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Phenol (CAS 108-95-2) 500 LBS

US. Pennsylvania RTK - Hazardous Substances

2-piperazin-1-ylethylamine (CAS 140-31-8) Listed.
Diethylenetriamine (CAS 111-40-0) Listed.
Phenol (CAS 108-95-2) Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.
I - Safety Glasses, Gloves, Dust, Vapor Respirator

HMIS® ratings

Health: 3*
Flammability: 2
Physical hazard: 0
Personal protection: J

NFPA ratings

Health: 3
Flammability: 2
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.