

# Material Safety Data Sheet

## BLUE OX™ 901 - Polyurethane Adhesive

### ADHESIVE®



TELEPHONE 715-832-4557

#### 1. Product Information

**Product Name** BX901-A  
**Proper Shipping Name** NA  
**Product Class** Polymeric Diisocyanate (MDI)  
**U.S.D.O.T. Hazard Class** NA  
**U.S.D.O.T. Hazard Number** NA  
**U.S.D.O.T. Label** None  
**HMIS CODES:** Health 3 Flammability 1 Reactivity 1  
**Hazard Ratings:** 4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal

#### 2. Hazardous Ingredients

Ingredients	CAS#	TLV**	Percent*
Methylene Bis (Phenylisocyanate) (MDI)	101-68-8		>20%
Polymeric Diphenylmethane Diisocyanate	9016-87-9		100%

\*Major = Over 25%, Minor = 6%-25%, Trace = Under 6%, Residue = Unknown % Residue Possible  
\*\*TLV as established by ACGIH and or OSHA Standard

\*\*\* If no components are listed then this material contains non-hazardous substances according to 29CFR1910.1200.

#### 3. Physical and Chemical Properties

**Physical State** Liquid  
**Color** Beige  
**Specific Gravity** 1.41 @ 77°F  
**LBS/Gallon** 11.75  
**Vapor Density** 8.5(MDI) Air=1  
**Boiling Point** 406°F @ 5mmHg for MDI  
**Odor** Slightly musty  
**Vapor Pressure** <10-5mmHg @ 77°F

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guarantee analysis of any specific lot or as specifications for the product.

#### 4. Fire and Explosion Data

**Flash Point** >450°F (PMCC)  
**Flammability Limits** UEL % Not established  
**Extinguishing Media:** Foam, CO2, Dry Chemical, Water Fog  
**Special Fire Fighting Procedures** For large fires, alcohol resistant foams(ATC type) are preferred if available. General purpose synthetic foams(including AFFF) or protein foams may function but much less effectively. Water is not recommended but may be applied in very large quantities as a fine spray when other extinguishing media are not available.  
**Unusual Fire and Explosion Hazards** Full emergency equipment with self-contained breathing apparatus should be worn. During a fire irritating, toxic gases (see Reactive Data ) and smoke are present from decomposition/combustion. Product reacts with water. Reaction may produce heat and/or gases.

#### 5. Health Hazards Data

**Effects of Over Exposure** **Acute**  
**Eyes:** Can cause eye irritation.  
**Skin:** Can cause skin irritation. Repeated or prolonged exposure may cause sensitization. Acute:- Isocyanates reacts with skin protein & moisture & cause irritation which may include reddening, swelling, rash, scaling or blistering.  
**Ingestion:** May cause nausea, vomiting or other signs of illness.  
**Inhalation:** MDI vapors at concentrations above TLV can irritate the mucous membranes in the respiratory Tract (nose, throat, lungs) causing a runny nose, soar throat, coughing, chest discomfort, shortness of breath and reduced lung function. Persons with pre-existing , nonspecific bronchial hyperreactivity can respond to concentrations below TLV with similar systems as well as asthma attack. Overexposure to isocyanates has also been reported to cause lung damage (including decrease in lung function) which may be permanent.

#### 6. First Aid Procedures

**Eye Contact** Flush immediately with clean, lukewarm water (low pressure) for at least 15 minutes while holding eye lids open. Obtain medical attention immediately.  
**Skin Contact** Remove contaminated clothing. Wash affected areas thoroughly with soap and water, warm water is prefer able if readily available. Wash contaminated clothing before reuse. Contact physician if irritation occurs.  
**Inhalation** Move to fresh air. Administer oxygen or artificial respiration as needed. Obtain medical attention. Asthmatic -type symptoms may develop and may be immediate or delayed up to several hours.  
**Ingestion** Do not give any liquids ( do not induce vomiting ). Get medical help immediately. Give 1 to 2 cups of milk or water to drink. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.  
**CONSULT PHYSICIAN IMMEDIATELY.**

## 7. Special Protection Information.

<b>Eye Protection</b>	Liquid chemical goggles or full-face shield.
<b>Skin Protection</b>	Chemical resistant gloves (natural latex and neoprene recommended). Cover as much of the exposed skin area as possible with appropriate clothing. If skin creams are used, keep the area covered by the cream to a minimum.
<b>Ventilation and Respiratory Protection</b>	Exhaust ventilation sufficient to keep airborne concentrations of the hazardous constituents below TLV or other appropriate exposure limit must be utilized. When respiratory protection is required for certain operations, use an approved positive-pressure supplied – air respirator. Avoid breathing vapors which may be produced under some conditions such as heating. Avoid breathing aerosols and mists. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure is excessive. Observe OSHA regulations for respirator use (29 CFR 1910.134)
<b>Other</b>	Safety showers and eye wash stations should be easily accessible to the work area. <i>Worker training is important. Follow all label precautions.</i>

## 8. Reactivity Data

<b>Stability</b>	STABLE UNDER NORMAL STORAGE, POLYMERIZATION WILL NOT OCCUR. Product is VERY UNSTABLE when contaminated with water.
<b>Conditions to Avoid</b>	Avoid temperatures above 86°F. Avoid temperatures below 64°F. Avoid moisture. Product can decompose at elevated temperature.
<b>Materials to Avoid</b>	Avoid contact with metals such as aluminum, brass, copper, galvanized metals, zinc. Reaction with water can generate carbon dioxide. Generation of gas can cause pressure build up in closed systems. Avoid contact with acids, alcohol, amines, ammonia, bases, metal compounds, moist air, strong oxidizers and water. Avoid unintended contact with polyols.
<b>Hazardous Polymerization</b>	Can occur. Polymerization can be catalyzed by strong bases and water.
<b>Decomposition Products</b>	By heat and fire: Carbon dioxide, carbon monoxide, aldehydes, acids and other organic substances may be formed.

## 9. Spill, Leak and Disposal Procedures

<b>Action to be taken if material is released or spilled</b>	Remove all sources of ignition. Avoid contact with material. Ventilate the area. Equip clean-up crew with appropriate protective equipment. Persons not wearing proper protective equipment should be excluded from the area until cleanup is complete. Dike or impound spilled material and control further spillage if feasible. Notify appropriate authorities if necessary. Cover spill area with sawdust, vermiculite, or other absorbent material; collect material in open containers. Attempt to neutralize by adding a mixture of: water(80%), with non-ionic surfactant Tergitol TMN-10 (20%), or water (90%), concentrated ammonia (3-8%) and detergent (2%). Add about 10 parts of neutralizer per part of Isocyanate while mixing. Allow to stand uncovered for 48 hours to let CO2 escape. If ammonia is used, use good ventilation to prevent vapor exposure. Large quantities may be pumped into closed, but not sealed containers. Refer to section IX for disposal information. Remove containers to safe place and cover.
<b>Waste Disposal Method</b>	Dispose of waste in accordance with Federal, State, and Local regulations. Incineration is the preferred method. Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torch.

## 10. Special Precautions and Storage Data

<b>Contact</b>	Avoid skin and eye contact. Avoid breathing vapor, mist of fumes. Ensure that all containers are properly labeled to prevent accidental ingestion or improper disposal. Reseal partly used containers. Wash with soap and water before eating, drinking or using toilet facilities. Store under cool, dry conditions away from open flames and high temperatures. Observe conditions of good industrial hygiene and safe working practice.
<b>Storage</b>	Store indoors in a dry place away from heat between the temperatures 64 to 86°F. Keep containers tightly closed when not in use. Keep product from exposing to atmospheric moisture and maintain a nitrogen atmosphere in the containers at all times. Do not store product contaminated with water to prevent potential hazardous reaction. Refer to section VIII of the MSDS for Reactivity and Stability data.

## 11. Regulatory Information

<b>TSCA</b>	All components of this product are registered under the regulations of the Toxic Substance Control Act.
<b>SARA TITLE III</b>	Section 302 Extremely Hazardous Substance: None