

# MATERIAL SAFETY DATA SHEET



**Date Issued:** 10/24/2011  
**MSDS No:** TC-812 PART A SLOW

## TC-812 PART A SLOW

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** TC-812 PART A SLOW  
**GENERAL USE:** Polyurethane resin  
**CHEMICAL FAMILY:** Aromatic polyisocyanate with fillers

#### MANUFACTURER

BJB Enterprises, Inc.  
 14791 Franklin Avenue  
 Tustin, CA 92780  
**Customer Service Number:** (714) 734-8450  
**Fax:** (714) 734-8929

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

**CHEMTREC (US Transportation):** (800) 424-9300  
 or (703) 527-3887

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE AND ODOR:** Yellow liquid with a slight musty odor.

**IMMEDIATE CONCERNS:** Combustible. Keep away from heat and sources of ignition. Avoid eye and skin contact. Avoid breathing vapors. May cause eye and skin irritation. Use in well ventilated areas. Reacts slowly with water to produce carbon dioxide which may rupture closed containers. This reaction accelerates at higher temperatures. Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to respiratory system. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons.

#### POTENTIAL HEALTH EFFECTS

**EYES:** May cause irritation, tearing, reddening, and swelling.

**SKIN:** May cause irritation and possible allergic sensitivity. Skin inflammation is characterized by itching, scaling, or reddening.

**INGESTION:** Slightly hazardous in case of ingestion.

**INHALATION:** May be harmful if inhaled. Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to the respiratory system. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons.

**MEDICAL CONDITIONS AGGRAVATED:** May cause or aggravate dermatitis and asthma.

**ROUTES OF ENTRY:** Eye and skin contact, inhalation of vapors, or accidental ingestion.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Polymeric diphenylmethane diisocyanate	25 - 35	9016-87-9
4,4'-Diphenylmethane diisocyanate	15 - 25	101-68-8
Aromatic Hydrocarbons	5 - 10	8052-41-3
Dibutyl phthalate	1 - 5	84-74-2

### 4. FIRST AID MEASURES

**EYES:** Immediately rinse with water. Remove contact lenses. Hold eyelids apart and flush eyes with water for at least 15 minutes. Get

**TC-812 PART A SLOW**

immediate medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur.

Wash clothing before reuse.

**INGESTION:** If swallowed, call a physician immediately. Do NOT induce vomiting. Provided the patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered by qualified personnel. Apply artificial respiration if breathing has ceased or shows signs of failing.

**NOTES TO PHYSICIAN:** Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

**5. FIRE FIGHTING MEASURES**

**FLASHPOINT AND METHOD:** 66°C (150°F) T.O.C.

**GENERAL HAZARD:** Combustible liquid and vapor.

**EXTINGUISHING MEDIA:** Water spray, carbon dioxide, dry chemical, or foam.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, and carbon dioxide.

**EXPLOSION HAZARDS:** Temperatures at or above the flash point could generate combustible mixtures. Avoid all ignition sources.

"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

**FIRE FIGHTING PROCEDURES:** Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.

**FIRE FIGHTING EQUIPMENT:** Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires.

**6. ACCIDENTAL RELEASE MEASURES**

**SMALL SPILL: Eliminate sources of ignition.** Evacuate the area. Clean-up should only be performed by trained personnel. People dealing with a major spill should wear full protective clothing including appropriate respiratory protection. Prevent product spill from entering sewers or waterways. Neutralize small spills with a decontaminant.

**LARGE SPILL:** Contain and absorb large spills onto an inert, non-flammable adsorbent carrier (earth or sand). Do not use combustible materials such as saw dust. Use only spark resistant and explosion proof recovery devices. Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spill area clean with a liquid decontaminant. Remove and properly dispose of residues. Notify applicable government authorities if release is reportable. (See CERCLA in Section 15).

**RELEASE NOTES:** US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

**7. HANDLING AND STORAGE**

**GENERAL PROCEDURES:** Combustible liquid. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors.

**HANDLING:** Use in a well ventilated area. Avoid heat, sparks, and open flames. Avoid breathing vapor and contact with eyes, skin, and clothing. To reduce potential for static discharge, bond and ground containers when transferring material. Hazardous residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning. Use appropriate personal protective equipment as specified in Section 8. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

**STORAGE:** Store in a cool, dry place, away from excessive heat, in original or similar container. Avoid unnecessary contact. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials.

**SHELF LIFE:** 6 months from date of shipment under manufacturers recommended storage conditions.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

## TC-812 PART A SLOW

## EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Polymeric diphenylmethane diisocyanate	TWA	NE	NE	NE	NE	0.005 <sup>[1]</sup>	0.05 <sup>[1]</sup>
	STEL	NE	NE	NE	NE	NE	NE
4,4'-Diphenylmethane diisocyanate	TWA	0.02	0.2	0.005	0.051	0.005 <sup>[1]</sup>	0.05 <sup>[1]</sup>
	STEL	NE	NE	NE	NE	NE	NE
Aromatic Hydrocarbons	TWA	500	2900	100	572	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Dibutyl phthalate	TWA	NE	5	NE	5	NE <sup>[1]</sup>	5 <sup>[1]</sup>
	STEL	NE	NE	NE	NE	NE	NE
<b>OSHA TABLE COMMENTS:</b>							
1. NIOSH REL							

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Safety goggles or glasses are recommended. Plastic face shields should be used for complete face protection to protect against possible splashing or spraying of material. ANSI Z87.1 or approved equivalent.

**SKIN:** Chemical-resistant gloves and chemical goggles, face-shield, and synthetic apron or coveralls should be used to prevent contact with eyes, skin, or clothing. Wear nitrile or neoprene gloves. Chemical resistant gloves lined with polyethylene offer maximum protection.

**RESPIRATORY:** Exhaust ventilation recommended. An organic vapor cartridge or fresh air supplied respirator (NIOSH approved) may be necessary for certain applications. Consider the type of application, environmental concentrations, and other materials being used concurrently when determining respirator use and selection. Observe OSHA regulations for respirator use (29 CFR 1910.134).

**PROTECTIVE CLOTHING:** Protective clothing should be selected and used in accordance with 'Guidelines for the Selection of Chemical Protective Clothing' published by ACGIH.

**WORK HYGIENIC PRACTICES:** Contaminated clothing should be changed and washed before reuse. Eating, drinking and smoking in immediate work area should be prohibited. Wash hands before eating.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Training is important. Follow all label precautions.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:** Liquid

**ODOR:** Slightly musty

**COLOR:** Yellow

**pH:** Not Applicable

**PERCENT VOLATILE:** 10

**VAPOR PRESSURE:** Not Established

**VAPOR DENSITY:** Not Established

**BOILING POINT:** > 148.9°C (300°F)

**FLASHPOINT AND METHOD:** 66°C (150°F) T.O.C.

**SOLUBILITY IN WATER:** Reacts slowly with water

**TC-812 PART A SLOW**

**SPECIFIC GRAVITY:** 0.650 (water=1) at 25°C (77°F)

**VISCOSITY:** 650 Centipoise at 25°C (77°F)

**VOC (Volatile Organic Compound):** 65.000 g/l Calculated. Theoretical VOC minus water and exempt solvents.

**10. STABILITY AND REACTIVITY**

**STABILITY:** This product is stable under normal ambient conditions of temperature and pressure.

**POLYMERIZATION:** May occur

**CONDITIONS TO AVOID:** High temperatures, moisture, and freezing conditions.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and carbon dioxide.

**INCOMPATIBLE MATERIALS:** Water, alcohols, strong bases, and metal compounds.

**11. TOXICOLOGICAL INFORMATION****TOXICITY TO ANIMALS**

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
Polymeric diphenylmethane diisocyanate	> 5000 mg/kg	> 5000 mg/kg	Not Established
4,4'-Diphenylmethane diisocyanate	> 5000 mg/kg	> 5000 mg/kg	2240 mg/m <sup>3</sup> (1 h of respirable aerosol)
Aromatic Hydrocarbons	Not Established	Not Established	Not Established
Dibutyl phthalate	20000 to 25000 mg/kg	> 20960 mg/kg	Not Established

**CARCINOGENICITY**

Chemical Name	IARC Status
Polymeric diphenylmethane diisocyanate	3
4,4'-Diphenylmethane diisocyanate	3

**IARC:** This product contains substances that are not classifiable as carcinogens to humans.

**12. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:** No specific ecological data are available for this product. Refer to Section 6 for information regarding accidental release and Section 15 for regulatory reporting information.

**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance with local, state, provincial or national regulations.

**EMPTY CONTAINER:** Containers must be emptied (as defined by RCRA, 40 CFR Section 261.7 or state regulations that may be more stringent) and either passed to an approved recycler or destroyed.

**14. TRANSPORT INFORMATION****DOT (DEPARTMENT OF TRANSPORTATION) LAND**

**NOTE:** Not Regulated

**AIR (ICAO/IATA):** Not Regulated

**VESSEL (IMO/IMDG):** Not Regulated

## TC-812 PART A SLOW

## 15. REGULATORY INFORMATION

## UNITED STATES

## SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

**311/312 HAZARD CATEGORIES:** Acute health hazard. Chronic health hazard

**313 REPORTABLE INGREDIENTS:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

## EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt. %	CAS	Comments
Polymeric diphenylmethane diisocyanate	25 - 35	9016-87-9	Diisocyanate Compounds (Category Code N120)
4,4'-Diphenylmethane diisocyanate	15 - 25	101-68-8	Diisocyanate Compounds (Category Code N120)
Dibutyl phthalate	1 - 5	84-74-2	

## CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** For this/these chemicals, release of more than the Reportable Quantity to the environment in a 24-hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675):

Chemical Name	Wt. %	CERCLA RQ
4,4'-Diphenylmethane diisocyanate	15 - 25	5,000 lbs.
Dibutyl phthalate	1 - 5	10 lbs.

## TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA STATUS:** This product or its components are listed in or exempt from the TSCA inventory requirements.

## OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

**29 CFR1910.119--PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS:** None of the chemicals in this product are considered highly hazardous by OSHA.

## REGULATIONS

**STATE REGULATIONS:** California Proposition 65: This product contains chemical(s) which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

## CALIFORNIA PROPOSITION 65

Chemical Name	Wt. %	Listed
Dibutyl phthalate	1 - 5	<ul style="list-style-type: none"> <li>● Cancer</li> <li>● Developmental Toxicity</li> <li>● Female Reproductive</li> <li>● Male Reproductive</li> </ul>

**OSHA HAZARD COMM. RULE:** The contents of the MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

## CANADA

**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):** This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**WHMIS CLASS:** B3, D1A, D2A, D2B

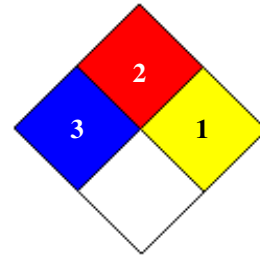
**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components in this product are included on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

## 16. OTHER INFORMATION

**REASON FOR ISSUE:** Revised format

**TC-812 PART A SLOW****APPROVED BY:** Michael Rose    **TITLE:** R & D Manager**PREPARED BY:** Gus Alidad**HMIS RATING**

<b>HEALTH</b>	*	<b>3</b>
<b>FLAMMABILITY</b>		<b>2</b>
<b>PHYSICAL HAZARD</b>		<b>1</b>
<b>PERSONAL PROTECTION</b>		<b>X</b>

**NFPA CODES****HMIS RATINGS NOTES:** Personal Protection: See Section 8

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