

# Material Safety Data Sheet

## F-90 PART A

Date of Preparation: 09/08/2005

Revision: 09/08/2005

### Section 1 - Chemical Product and Company Identification

**Product Name:** F-90 PART A

**Product Class:** Polyurethane resin

**Chemical Type:** Diisocyanate terminated polyglycols in plasticizer/paraffin mixture.

**Manufacturer:** BJB Enterprises, Inc., 14791 Franklin Avenue, Tustin, CA 92780, Phone (714) 734-8450, Fax (714) 734-8929, (M-Th: 8-4:30, F: 7:30-4), Emergency Phone: Chemtrec (800) 424-9300 or (703) 527-3887

### Section 2 - Composition / Information on Ingredients

Ingredient Name	CASRN	% wt
1. Polytetramethylene glycol polymer 1,3 diisocyanatomethylbenzene terminated	Proprietary	40-60
2. Polypropylene glycol polymer 1,3 diisocyanatomethylbenzene terminated	9057-91-4	20-40
3. Chlorinated paraffins	63449-39-8	5-10
4. Dibutyl phthalate	84-74-2	1-5
5. Aromatic hydrocarbon	64742-94-5	<2
6. Toluene-2,6-diisocyanate	91-08-7	<0.04
7. Toluene-2,4-diisocyanate	584-84-9	<0.03

### Section 3 - Hazards Identification

#### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Appearance: Light amber viscous liquid; Odor: Slight solvent smell; May cause irritation to skin and eyes; Burning material will generate fumes containing trace amounts of HCl, CO, and HCN.

#### HMIS

H 1

F 1

R 1

PPE<sup>†</sup>

<sup>†</sup>Sec. 8

#### Potential Health Effects

**Primary Entry Routes:** Eye and skin contact; inhalation of vapors, accidental ingestion.

**Inhalation/Ingestion:** Excessive vapors caused by heat or spray mist can cause respiratory problems.

**Eye:** May cause irritation and redness.

**Skin:** May cause irritation and possible allergic sensitivity with repeated contact.

**Medical Conditions Aggravated by Long-Term Exposure:** Acute asthma; Prior sensitization to isocyanates.

### Section 4 - First Aid Measures

**Inhalation:** Not likely. Remove to fresh air environment.

**Ingestion:** If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Eye Contact:** Flush eyes with clean, lukewarm water for 15 minutes. Obtain medical attention if irritation develops.

**Skin Contact:** Remove contaminated clothing and wash affected areas well with soap and water. Launder contaminated clothing before use.

**Note to Physicians:** Treat any ill effects symptomatically.

### Section 5 - Fire-Fighting Measures

**Flash Point/Method:** 230°F (110°C) PMCC

**Extinguishing Media:** Water spray, foam, dry chemical extinguisher, carbon dioxide (for class B fires).

**Unusual Fire or Explosion Hazards:** Burning material will generate fumes containing trace amounts of HCl (hydrochloric acid), CO, and HCN.

**Fire-Fighting Instructions:** Cool fire exposed containers with water spray. Remove containers from 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.



### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Provide adequate ventilation and wear personal protective equipment. Evacuate personnel as a precaution. Prevent product spill from entering sewers, streams, or drinking water supplies. Collect liquid or soak up with inert filler or an absorbent, such as dry earth, sand, or oil absorbent (sweeping) compound. Collect material into suitable containers for disposal. Wash area with dilute ammonia solution.

**Containment:** For large spills, dike ahead of liquid spill for later neutralization, absorption, clean up, and disposal.

## Section 7 - Handling and Storage

**Handling Precautions:** Avoid contact with eyes, skin and clothing. Avoid breathing vapor over open container. Avoid moisture contamination. Purge containers with inert dry gas before resealing.

**Storage Requirements:** Store in a cool, dry place away from excessive heat in original or similar waterproof containers. 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.

## Section 8 - Exposure Controls / Personal Protection

### Exposure Limits:

Polytetramethylene glycol polymer 1,3 diisocyanatomethylbenzene terminated (Proprietary):  
Not established

Polypropylene glycol polymer 1,3 diisocyanatomethylbenzene terminated (9057-91-4):  
Not established

Chlorinated paraffins (63449-39-8):  
Not established

Dibutyl phthalate (84-74-2):  
OSHA PEL (TWA): 5 mg/m<sup>3</sup>  
ACGIH TLV (TWA): 5 mg/m<sup>3</sup>  
NIOSH (REL): 5 mg/m<sup>3</sup>

Aromatic hydrocarbon (64742-94-5):  
OEL (TWA): 17 ppm, 100 mg/m<sup>3</sup> (based on total hydrocarbon)

Toluene-2,6-diisocyanate (91-08-7):  
OSHA PEL (TWA): 0.005 ppm, 0.04 mg/m<sup>3</sup>  
ACGIH TLV (TWA): 0.005 ppm, 0.04 mg/m<sup>3</sup>

Toluene-2,4-diisocyanate (584-84-9):  
OSHA PEL (TWA): 0.005 ppm, 0.04 mg/m<sup>3</sup>  
OSHA PEL (STEL): 0.02 ppm, 0.15 mg/m<sup>3</sup>  
ACGIH TLV (TWA): 0.005 ppm, 0.04 mg/m<sup>3</sup>  
ACGIH TLV (STEL): 0.02 ppm, 0.14 mg/m<sup>3</sup>  
ACGIH TLV (CEILING): 0.02 mg/m<sup>3</sup>

**Eye Protection Requirements:** Safety goggles or glasses are recommended. Plastic face shield should be worn for complete face protection.

**Skin Protection Requirements:** Impermeable gloves should be worn. Employees should wash their hands and face before eating, drinking, or using tobacco products.

**Ventilation Requirements:** Use in a well-ventilated area. Mechanical ventilation preferred.

**Respiratory Requirements:** Normally not required in well-ventilated areas. An organic vapor cartridge or fresh air supplied respirator 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).

**Additional Protective Measures:** Safety showers and eye wash stations should be easily accessible to the work area. Working training is important. Follow all label precautions.

## Section 9 - Physical and Chemical Properties

**Flash Point/Method:** 230°F (110°C) PMCC

**Physical State:** Viscous liquid

**Appearance and Odor:** Light amber/slight solvent smell.

**Vapor Pressure:** <1 mm Hg at 70°F (21°C)

**Specific Gravity (H<sub>2</sub>O=1):** 1.09

**pH:** N/A

**Water Solubility:** Reacts slightly with water

**Boiling Point:** >482°F (250°C)

**Freezing/Melting Point:** N/A

**Viscosity:** 6,000 cps @ 77°F (25°C)

**% Volatile:** <2.2

**V.O.C. (ref EPA meth 24):** 23 g/l

## Section 10 - Stability and Reactivity

**Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization may occur with amines, epoxy hardeners, high heat and moisture.

**Chemical Incompatibilities/Conditions to Avoid:** Acids, oxidizers, amines, and strong bases.

**Hazardous Decomposition:** Thermal oxidative decomposition can produce fumes containing HCl (hydrochloric acid), CO, and HCN.

## Section 11- Toxicological Information

### Animal Toxicity:

Polytetramethylene glycol polymer 1,3 diisocyanatomethylbenzene terminated (Proprietary):

LD50 Oral (rat): >5,000 mg/kg

LD50 Dermal (rabbit): >5,000 mg/kg

Polypropylene glycol polymer 1,3 diisocyanatomethylbenzene terminated (9057-91-4):

Not established

Chlorinated paraffins (63449-39-8):

LD50 Oral (rat): >4 g/kg

Dibutyl phthalate (84-74-2):

LD50 Oral (rat): 20,000-25,000 mg/kg

LD50 Dermal (guinea pig): >2,096 mg/kg, >2 ml/kg (highest dose tested)

LD50 Dermal (rabbit): >20,960 mg/kg, >20 ml/kg (highest dose tested)

Aromatic hydrocarbon (64742-94-5):

Not established

Toluene-2,6-diisocyanate (91-08-7):

Not established

Toluene-2,4-diisocyanate (584-84-9):

LD50 Oral (rat): 5,800 mg/kg

## Section 12 - Ecological Information

### Ecotoxicity:

Polytetramethylene glycol polymer 1,3 diisocyanatomethylbenzene terminated (Proprietary):

Not established

Polypropylene glycol polymer 1,3 diisocyanatomethylbenzene terminated (9057-91-4):

Not established

Chlorinated paraffins (63449-39-8):

LC50 Rainbow trout (60 day): >0.34 mg/l

Dibutyl phthalate (84-74-2):

LC50 Fathead minnow (96 h): 0.92 mg/l, NOEC: 0.32 mg/l

LC50 Rainbow trout (96 h): 1.6 mg/l, NOEC: 0.5 mg/l

LC50 Sheepshead minnow (96 h): >0.6 mg/l, NOEC: 0.6 mg/l

LC50 Bluegill sunfish (96 h): 0.48 mg/l, NOEC: 0.42 mg/l

EC50 Daphnid (48 h): 3 mg/l, NOEC: 1.7 mg/l

Aromatic hydrocarbon (64742-94-5):

Not established

Toluene-2,6-diisocyanate (91-08-7):

Not established

Toluene-2,4-diisocyanate (584-84-9):

Not established

**Section 13 - Disposal Considerations****Waste Disposal Method:** Dispose of in compliance with federal, state, or local environmental control regulations.**Section 14 - Transport Information****DOT**

Not regulated

**IATA/ICAO**

Not regulated

**IMO/IMDG**

Not regulated

**Section 15 - Regulatory Information****U.S. Federal Regulations:****OSHA:**

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard.

**SARA TITLE III:**

Sections 311/312 Hazard Classification:

None

Section 313: This product contains the following substances subject to the reporting requirements of EPCRA, Section 313 and 40 CFR Part 372:

Dibutyl phthalate

CAS# 84-74-2

1-5%

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

This product contains the following substances subject to export notification under Section 12 (b) of TSCA:

None

**State Regulations:**

California Proposition 65: This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Naphthalene (91-20-3): &lt;0.2%, Ingredient in the Aromatic hydrocarbon (64742-94-5)

Toluene-2,6-diisocyanate (91-08-7)

Toluene-2,4-diisocyanate (584-84-9)

**Section 16 - Other Information****Reason for Issue:** Revised Sections: 1, 2, 5, 8, 9, 11, 12 & 15**Prepared By:** M. Rose**Approval Date:** 09/08/2005**Supersedes Date:** 08/27/2001**Disclaimer:** This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of BJB Enterprises, Inc. The data on this sheet relates only to the specific material designated herein. BJB Enterprises, Inc. assumes no legal responsibility for use or reliance upon these data.