

# Material Safety Data Sheet

F-42 PART A

Date of Preparation: 11/09/2005

Revision: 11/09/2005

## Section 1 - Chemical Product and Company Identification

**Product Name:** F-42 PART A

**Product Class:** Polyurethane resin

**Chemical Type:** Aromatic diisocyanate terminated prepolymer, plasticizer 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. Modified MDI	Proprietary	50 – 60
2. Butyl benzyl phthalate	85-68-7	25 – 35
3. 4,4'- Diphenylmethane diisocyanate	101-68-8	10 – 15
4. Chlorinated paraffin	63449-39-8	10 – 15
5. Ethylbenzene	100-41-4	0.25

## Section 3 - Hazards Identification

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Appearance: Pale yellow liquid; Odor: Slight sweet odor; Avoid skin contact. Avoid breathing vapors. May cause eye and skin irritation. Harmful if inhaled. Avoid breathing fumes over open container. Use in well-ventilated areas. Reacts slowly with water to produce carbon dioxide which may rupture closed containers. This reaction accelerates at higher temperatures.

**HMIS**  
**H** 2  
**F** 1  
**R** 1  
**PPE**†  
†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.

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

**Medical Conditions Aggravated by Long-Term Exposure:** None known

## 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:** 205°F (96°C) PMCC

**Extinguishing Media:** Water, carbon dioxide, or dry chemical.

**Unusual Fire or Explosion Hazards:** Avoid contact with strong oxidizers and strong acids, as sudden reaction may result in fire and toxic fumes.

**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.

**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:

Modified MDI (Proprietary):

Not established

Butyl benzyl phthalate (85-68-7):

Not established

4,4'-Diphenylmethane diisocyanate (101-68-8):

ACGIH TLV: 0.05 mg/m<sup>3</sup> (8-hour, 40 hours/week)

OSHA PEL Ceiling Limit: 0.2 mg/m<sup>3</sup>

NIOSH REL/TWA: 0.05 mg/m<sup>3</sup> (10-hour, 40 hours/week)

NIOSH REL/CEILING: 0.2 mg/m<sup>3</sup> (10-minute)

Chlorinated paraffin (63449-39-8):

Not established

Ethylbenzene (100-41-4):

ACGIH TLV: 100 ppm (TWA)

125 ppm (STEL)

OSHA PEL: 100 ppm (TWA)

125 ppm (STEL)

**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/Respiratory Requirements:** Exhaust ventilation recommended. An organic vapor cartridge or fresh air supplied respirator (NIOSH certified) 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. Training is important. Follow all label precautions.

## Section 9 - Physical and Chemical Properties

**Flash Point/Method:** 205°F (96°C) PMCC

**Physical State:** Liquid

**Appearance and Odor:** Pale yellow; Sweet

**Vapor Pressure:** <0.001 mm Hg at 68°F (20°C)

**Specific Gravity (H<sub>2</sub>O=1):** 1.11

**pH:** N/A

**Water Solubility:** Reacts slowly with water

**Boiling Point:** 540°F (282°C)

**Viscosity:** 665 cps

**% Volatile:** 3.0

**V.O.C. (ref EPA meth 24):** 33 g/l

## Section 10 - Stability and Reactivity

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

**Hazardous Polymerization:** Polymerization may occur at elevated temperatures in the presence of alkalis, tertiary amines and metal compounds.

**Chemical Incompatibilities/Conditions to Avoid:** Moisture, acids and amines. Avoid high temperatures and freezing. Avoid contact with strong oxidizers and strong acids as sudden reaction may result in fire and toxic fumes.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, nitrous oxide and HCN.

## Section 11- Toxicological Information

### Animal Toxicity:

- Modified MDI (Proprietary):  
Not established
- Butyl benzyl phthalate (85-68-7):  
LD50 Oral (rat): 20,400 mg/kg  
LD50 Dermal (rabbit): 10,000 mg/kg  
LC50 Inhalation (rat): >6.7 mg/l (4 hours)
- 4,4'-Diphenylmethane diisocyanate (101-68-8):  
LD50 Oral (rat): >5,000 mg/kg  
LD50 Dermal (rabbit): >5,000 mg/kg  
LC50 Respirable aerosol (rat): 2240 mg/m<sup>3</sup> (1 hour)  
LC50 Respirable aerosol (rat): 0.49 mg/m<sup>3</sup> (4 hours)
- Chlorinated paraffin (63449-39-8):  
Not established
- Ethylbenzene (100-41-4):  
LD50 Oral (rat): 3,500 mg/kg  
LD50 Dermal (rabbit): 17,800 uL/kg  
LD50 Intraperitoneal (rat): 2,624 mg/kg

## Section 12 - Ecological Information

### Ecotoxicity:

- Modified MDI (Proprietary):  
Not established
- Butyl benzyl phthalate (85-68-7):  
EC50 Daphnia magna: 1.7 mg/l (48 hours)  
EC50 Algae: 1.5 mg/l (72 hours)  
LC50 Rainbow trout: 1.1 mg/l (96 hours)  
LC50 Fathead minnow: 1.5 mg/l (96 hours)
- 4,4'-Diphenylmethane diisocyanate (101-68-8):  
LC50 Zebra fish: >1,000 mg/l  
EC50 Daphnia magna: >1,000 mg/l (24 hours)  
EC50 E. Coli: >100 mg/l
- Chlorinated paraffin (63449-39-8):  
Not established
- Ethylbenzene (100-41-4):  
Not established

## Section 13 - Disposal Considerations

**Waste 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 containers should be decontaminated and either passed to an approved recycler or destroyed.

## 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:**

Toxic, irritating substance, sensitizing substance

Section 313: 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:

4,4'- Diphenylmethane diisocyanate	CAS# 101-68-8	10 - 15%
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**CERCLA Reportable Quantity:**

100 lbs Butyl benzyl phthalate CAS# 85-68-8

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).

**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 cause birth defects or other reproductive harm.

Ethylbenzene	CAS# 100-41-4
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**Section 16 - Other Information**

**Reason for Issue:** Revised Sections 2, 3, 5, 8, 9, 11, 12, 13, & 15

**Prepared By:** Gus Alidad

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**Supersedes Date:** 04/24/2001

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