

# Material Safety Data Sheet

TC-1611 PART B

Date of Preparation: 7/29/2003

Revision: 7/29/2003

## Section 1 - Chemical Product and Company Identification

**Product Name:** TC-1611 PART B

**Product Class:** Epoxy hardener

**Chemical Type:** Amine 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. Tetraethylenepentamine	112-57-2	45 - 50
2. N-Aminoethylpiperazine	140-31-8	30 - 40
3. Diethylenetoluenediamine	68479-98-1	10 - 15
4. 2-Ethyl-4 methylimidazole	931-36-2	5
5. Triethylenetetramine	112-24-3	<3

**Trace Impurities:** N/A

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
#1	NE	NE	NE	NE	NE	NE	NE
#2	NE	NE	NE	NE	NE	NE	NE
#3	NE	NE	NE	NE	NE	NE	NE
#4	NE	NE	NE	NE	NE	NE	NE
#5	NE	NE	NE	NE	NE	NE	NE

## Section 3 - Hazards Identification

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Appearance: Liquid; Odor: Amine; Caustic, moderate corrosive material. Avoid skin contact. Avoid breathing vapors. May cause eye and skin irritation. Harmful if inhaled. Use in well-ventilated areas. Decomposition and combustion products may be toxic.

**HMIS**  
**H** 3  
**F** 1  
**R** 0  
**PPE**†  
†Sec. 8

### Potential Health Effects

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

**Inhalation/Ingestion:** May cause irritation to upper respiratory tract and breathing discomfort.

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

**Skin:** May cause irritation, redness, and rash. Sensitization is possible.

**Medical Conditions Aggravated by Long-Term Exposure:** Prior amine exposure; may aggravate pre-existing asthma.

## 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:** >275°F (>135°C) C.O.C.

**Autoignition Temperature:** N/A

**DOT Hazard Classification:** Class 8, PG III

**Extinguishing Media:** Carbon dioxide, dry chemical extinguisher, foam or water spray.

**Unusual Fire or Explosion Hazards:** Decomposition and combustion products may be toxic.



### Section 5 - Fire-Fighting Measures (cont'd.)

**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 must wear positive pressure self-contained breathing apparatus (SCBA) for fighting large fires. Consider the use of unmanned hose holders or monitor nozzles when 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 liquid into suitable containers for disposal. Flush contaminated area with water.

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

### Section 7 - Handling and Storage

**Handling Precautions:** WARNING! Caustic, moderate corrosive material. Avoid contact with eyes, skin and clothing. Avoid breathing vapor directly over open container.

**Storage Temperature (Min/Max):** 60°–90°F (16°–32°C)

**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:** 12 months from date of shipment under manufacturers recommended storage conditions.

### Section 8 - Exposure Controls / Personal Protection

**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 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

**Physical State:** Liquid

**Odor:** Amine

**Vapor Pressure:** <1mm Hg at 68°F (20°C)

**Specific Gravity (H<sub>2</sub>O=1):** 0.98

**pH:** N/A

**Water Solubility:** Soluble

**Boiling Point:** >410°F (>210°C)

**% Volatile:** Nil

**V.O.C. (ref EPA meth 24):** Less than 25 gm/liter (as TETA)

### Section 10 - Stability and Reactivity

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

**Polymerization:** Hazardous polymerization will not occur.

**Chemical Incompatibilities/Conditions to Avoid:** Strong oxidizing agents, strong Lewis and mineral acids.

**Hazardous Decomposition:** May be toxic.

### Section 11- Toxicological Information

No Toxicological Information Available

### Section 12 - Ecological Information

No Ecological Information Available

**Section 13 - Disposal Considerations**

**Waste Disposal Method:** Landfill burial or incineration unless prohibited. Dispose of in compliance with federal, state or local environmental control regulations.

**Section 14 - Transport Information**

<b>Shipping Name:</b> Corrosive liquid, n.o.s.	<b>DOT (USA):</b> Regulated
<b>Technical Shipping Name:</b> (Tetraethylenepentamine solution)	Class 8, PG III
<b>Hazard Class:</b> Class 8	<b>IATA/ICAO:</b> Regulated
<b>ID No.:</b> UN1760	Class 8, PG III
<b>Packing Group:</b> III	<b>IMO/IMDG:</b> Regulated
<b>Label:</b> Corrosive	Class 8, PG III

**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:

None

**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

**Section 16 - Other Information**

**Reason for Issue:** New Issue

**Prepared By:** M. Rose

**Approval Date:** 08/04/2003

**Supersedes Date:** 04/09/2001

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