

# SAFETY DATA SHEET



Date Prepared : 03/19/2014  
 SDS No : TC-1600 PART A  
 Date Revised : 05/18/2017  
 Revision No : 1

## TC-1600 PART A

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** TC-1600 PART A

**GENERAL USE:** Epoxy resin

**MANUFACTURER**

BJB Enterprises, Inc.  
 14791 Franklin Avenue  
 Tustin, CA 92780  
**Emergency Phone:** (714) 734-8450

**24 HR. EMERGENCY TELEPHONE NUMBERS**

**CHEMTREC (USA & Canada):** (800) 424-9300  
 or (703) 527-3887 CCN# 2820

### 2. HAZARDS IDENTIFICATION

**GHS CLASSIFICATIONS**

**Health:**

Skin Irritation, Category 2  
 Eye Irritation, Category 2A  
 Skin Sensitization, Category 1  
 Germ Cell Mutagenicity, Category 2  
 Carcinogenicity, Category 2

**Environmental:**

Acute Hazards to the Aquatic Environment, Category 2  
 Chronic Hazards to the Aquatic Environment, Category 2

**Physical:**

Flammable Liquids, Category 4

**GHS LABEL**



Health hazard



Exclamation  
 mark



Environment

**SIGNAL WORD:** WARNING

**HAZARD STATEMENTS**

H227: Combustible liquid.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H317: May cause an allergic skin reaction.  
 H341: Suspected of causing genetic defects.  
 H351: Suspected of causing cancer.  
 H411: Toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

**Prevention:**

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P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P273: Avoid release to the environment.

**Response:**

P370+P378: In case of fire: Use water spray, carbon dioxide, dry chemical, or foam for extinction.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

P308+P313: IF exposed or concerned: Get medical advice/ attention.

P391: Collect spillage.

**Storage:**

P403+P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

**Disposal:**

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt. %	CAS
Bisphenol A-epichlorohydrin resin	3 - 60	25068-38-6
Epoxy phenol novolac resin	15 - 40	28064-14-4
n-Butyl glycidyl ether	3 - 7	2426-08-6
Epichlorohydrin	< 0.03	106-89-8

**4. FIRST AID MEASURES**

**EYES:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if irritation or rash develops. Wash clothing before reuse.

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

**INHALATION:** Remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get immediate medical attention.

**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**

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

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

**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.

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**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 (such as 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).

**ENVIRONMENTAL PRECAUTIONS**

**WATER SPILL:** Do not discharge into drains or rivers.

**GENERAL PROCEDURES:** Refer to section 8 of SDS for personal protection details.

**RELEASE NOTES:** Composition and extent of any spill should be evaluated against local regulations and reported to the proper agencies, if necessary.

**7. HANDLING AND STORAGE**

**GENERAL PROCEDURES:** Keep away from sources of ignition. 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 appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

**STORAGE:** Store in a dry and well-ventilated place, away from excessive heat in the original or similar container. Avoid sources of ignition and incompatible materials. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials. Avoid unnecessary contact.

**STORAGE TEMPERATURE:** 65-80°F (18-27°C)

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

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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## EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
		EXPOSURE LIMITS		
Chemical Name	Type		ppm	mg/m <sup>3</sup>
Bisphenol A-epichlorohydrin resin	OSHA PEL	TWA	-	-
		STEL	-	-
	ACGIH TLV	TWA	-	-
		STEL	-	-
	NIOSH REL	TWA	-	-
Epoxy phenol novolac resin	OSHA PEL	TWA	-	-
		STEL	-	-
	ACGIH TLV	TWA	-	-
		STEL	-	-
	NIOSH REL	TWA	-	-
n-Butyl glycidyl ether	OSHA PEL	TWA	50	270
		STEL	-	-
	ACGIH TLV	TWA	3	-
		STEL	-	-
	NIOSH REL	TWA	5.6	30
Epichlorohydrin	OSHA PEL	TWA	5	19
		STEL	-	-
	ACGIH TLV	TWA	0.5	-
		STEL	-	-
	NIOSH REL	TWA	-	-

**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**

**TC-1600 PART A****PHYSICAL STATE:** Viscous liquid**ODOR:** Slight**COLOR:** Colorless**pH:** No data available**PERCENT VOLATILE:** 0.08**FLASH POINT AND METHOD:** 81°C (177.8°F) Pinsky-Martens CC**VAPOR PRESSURE:** No data available**VAPOR DENSITY:** No data available**BOILING POINT:** No data available**SOLUBILITY IN WATER:** Insoluble**SPECIFIC GRAVITY:** 1.15 (water=1) at 25°C (77°F)**VISCOSITY #1:** 2000 Centipoise at 25°C (77°F)**(VOC):** < 0.92 g/l Calculated. Theoretical VOC minus water and exempt solvents.**10. STABILITY AND REACTIVITY****REACTIVITY:** Hazardous reactions will not occur under normal transport or storage conditions.**STABILITY:** This product is stable under normal ambient conditions of temperature and pressure.**CONDITIONS TO AVOID:** High temperatures and sources of ignition.**POSSIBILITY OF HAZARDOUS REACTIONS:** Exothermic reactions including polymerization may occur in contact with amines, strong acids, strong bases, alcohols, strong oxidizing agents and excessive heat.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, and aldehydes.**INCOMPATIBLE MATERIALS:** Strong acids, strong bases, and strong oxidizing agents.**11. TOXICOLOGICAL INFORMATION****ACUTE TOXICITY**

Chemical Name	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>	INHALATION LC <sub>50</sub>
Bisphenol A-epichlorohydrin resin	> 2000 mg/kg Rat	> 2000 mg/kg Rat	No data available
Epoxy phenol novolac resin	> 2000 mg/kg Rat	> 2000 mg/kg Rabbit	No data available
n-Butyl glycidyl ether	No data available	No data available	No data available
Epichlorohydrin	90 mg/kg Rat	No data available	250 ppm Rat (8 h)

**SKIN CORROSION/IRRITATION:** Causes skin irritation.**SERIOUS EYE DAMAGE/IRRITATION:** Causes serious eye irritation.**RESPIRATORY OR SKIN SENSITISATION:** May cause sensitization by skin contact.**GERM CELL MUTAGENICITY:** Suspected of causing genetic defects.**CARCINOGENICITY**

Chemical Name	NTP Status	IARC Status
Bisphenol A-epichlorohydrin resin		1
Epichlorohydrin	2	2A

**REPRODUCTIVE TOXICITY:** No data available**STOT-SINGLE EXPOSURE:** No data available**STOT-REPEATED EXPOSURE:** No data available

**TC-1600 PART A****ASPIRATION HAZARD:** No data available**12. ECOLOGICAL INFORMATION****ENVIRONMENTAL DATA:** This product may cause risk of hazardous effects to the environment.**ECOTOXICOLOGICAL INFORMATION:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release to the environment.**BIOACCUMULATION/ACCUMULATION:** No data available**DISTRIBUTION:** No data available**CHEMICAL FATE INFORMATION:** No data available**13. DISPOSAL CONSIDERATIONS****DISPOSAL METHOD:** The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protections and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.**14. TRANSPORT INFORMATION****DOT (DEPARTMENT OF TRANSPORTATION)****PROPER SHIPPING NAME:** Environmentally hazardous substance, liquid, n.o.s. (**See Note**)**TECHNICAL NAME:** Bisphenol A epoxy resin**PRIMARY HAZARD CLASS/DIVISION:** 9**UN/NA NUMBER:** UN3082**PACKING GROUP:** III**NAERG:** 171**LABEL:** Class 9 (miscellaneous hazardous materials)**MARINE POLLUTANT #1:** Yes**OTHER SHIPPING INFORMATION:** Only regulated for bulk and vessel shipments, per 49CFR171.4 (c) Exceptions. Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car, or aircraft.**AIR (ICAO/IATA)****SHIPPING NAME:** Environmentally hazardous substance, liquid, n.o.s. (**See Note**)**TECHNICAL NAME:** Bisphenol A epoxy resin**UN/NA NUMBER:** UN3082**PRIMARY HAZARD CLASS/DIVISION:** 9**PACKING GROUP:** III**ERG:** 9L**LABEL:** Class 9 (miscellaneous hazardous materials)**NOTE:** Only regulated for bulk and vessel shipments, per 49CFR171.4 (c) Exceptions. Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car, or aircraft.**VESSEL (IMO/IMDG)****SHIPPING NAME:** Environmentally hazardous substance, liquid, n.o.s.**TECHNICAL NAME:** Bisphenol A epoxy resin**UN/NA NUMBER:** UN3082

**TC-1600 PART A****PRIMARY HAZARD CLASS/DIVISION:** 9**PACKING GROUP:** III**EmS:** F-A, S-F**MARINE POLLUTANT #1:** Yes**LABEL:** Class 9 (miscellaneous hazardous materials)**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:** Acute Health Hazard, Chronic Health Hazard, Fire Hazard**313 REPORTABLE INGREDIENTS:** This product does not contain any 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.**CERCLA (COMPREHENSIVE ENVIRONMENTAL 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
Epichlorohydrin	< 0.03	100 lbs.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)****TSCA REGULATORY:** This product does not contain any chemicals subject to TSCA Section 12(b) export notification.**TSCA STATUS:** This product or its components are listed in or exempt from the TSCA inventory requirements.**CLEAN AIR ACT**

Chemical Name	Wt.%	CAS
Epichlorohydrin	< 0.03	106-89-8

**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.**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):

Chemical Name	Wt.%	Listed
Epichlorohydrin	< 0.03	<ul style="list-style-type: none"> <li>● Cancer</li> <li>● Male Reproductive</li> </ul>

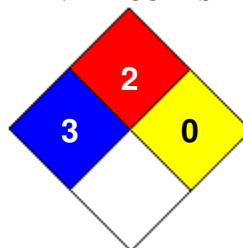
**OSHA HAZARD COMM. RULE:** The contents of the SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.**CANADA****WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):** This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components in this product are listed in or exempted from the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).**GENERAL COMMENTS:** No data available**16. OTHER INFORMATION****REASON FOR ISSUE:** Revision**Date Revised:** 05/18/2017

**TC-1600 PART A**

**REVISION SUMMARY:** This SDS replaces the 03/19/2014 SDS.

**HMIS RATING**

<b>HEALTH</b>	*	<b>3</b>
<b>FLAMMABILITY</b>		<b>2</b>
<b>PHYSICAL HAZARD</b>		<b>0</b>
<b>PERSONAL PROTECTION</b>		<b>X</b>

**NFPA CODES**

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

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