

## SAFETY DATA SHEET



Date Issued : 03/18/2014  
 SDS No : TC-1604 PART A  
 Date Revised : 12/07/2021  
 Revision No : 3

## TC-1604 PART A

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** TC-1604 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:**

Chronic Hazards to the Aquatic Environment, Category 2

**GHS LABEL**

Health hazard

Exclamation  
mark

Environment

**SIGNAL WORD: WARNING****HAZARD STATEMENTS**

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:**

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:**

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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:**

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
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	60 - 100	25068-38-6
Calcium carbonate (limestone)	10 - 30	1317-65-3
o-Cresol-glycidyl ether	5 - 10	2210-79-9
Titanium dioxide (TiO <sub>2</sub> )	1 - 5	13463-67-7
Silicon dioxide	0.5 - 1.5	7631-86-9
Furfuryl alcohol	0.5 - 1.5	98-00-0

**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 medical advice/attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical advice/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 and carbon dioxide.

**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**

**SPILL AND LEAK PROCEDURES:** Evacuate unnecessary personnel from the spill area. Wear necessary personal protective equipment (PPE) as specified in the SDS or the site emergency response plan. Eliminate all sources of ignition. Ensure adequate ventilation. Dike and contain spill. Prevent product from entering drains or waterways. Absorb with non-combustible material (such as sand, earth, diatomaceous earth, or vermiculite) and transfer to a container for disposal according to local/national regulations.

**ENVIRONMENTAL PRECAUTIONS**

**WATER SPILL:** Do not discharge into drains, surface waters, or groundwater.

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**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:** 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 original or similar container. Avoid unnecessary contact. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials.

**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****EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
Chemical Name	EXPOSURE LIMITS			
	Type		ppm	mg/m <sup>3</sup>
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	NIOSH REL	TWA	-	-
Calcium carbonate (limestone)	OSHA PEL	TWA	- [1]	15T 5R [1]
	NIOSH REL	TWA	- [1]	10T 5R [1]
Titanium dioxide (TiO <sub>2</sub> )	OSHA PEL	TWA	- [2]	15 [2]
	ACGIH TLV	TWA	-	10
Silicon dioxide	OSHA PEL	TWA	20 mppcf [3]	80 %SiO <sub>2</sub> [3]
	NIOSH REL	TWA	-	6
Furfuryl alcohol	OSHA PEL	TWA	50	200
		STEL	-	-
	ACGIH TLV	TWA	10	40
		STEL	15 [4]	60 [4]
	NIOSH REL	TWA	10	40
		STEL	15 [4]	60 [4]

**Footnotes:**

1. T = Total dust, R = Respirable fraction
2. Total dust
3. Mineral dusts
4. Skin

**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

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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:** Viscous liquid

**ODOR:** Slight

**COLOR:** White

**pH:** No data available

**FLASH POINT AND METHOD:** > 125°C (257°F) Pensky-Martens CC

**BOILING POINT:** No data available

**SOLUBILITY IN WATER:** Practically insoluble

**SPECIFIC GRAVITY:** 1.28 (water=1) at 25°C (77°F)

**VISCOSITY #1:** 8500 Centipoise at 25°C (77°F)

**(VOC):** < 19.3 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:** No data available

**POSSIBILITY OF HAZARDOUS REACTIONS:** No data available

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

**INCOMPATIBLE MATERIALS:** 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>
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	> 2000 mg/kg Rat	> 2000 mg/kg Rat	No data available
Calcium carbonate (limestone)	No data available	No data available	No data available
o-Cresol-glycidyl ether	> 2000 mg/kg Rat	> 2000 mg/kg Rat	> 6.1 ppm Rat (4 h)
Titanium dioxide (TiO <sub>2</sub> )	> 10000 mg/kg Rat	No data available	> 6.82 mg/l Rat (4 h)
Silicon dioxide	> 3300 mg/kg Rat	> 5000 mg/kg Rat	0.139 mg/l Rat (4 h)
Furfuryl alcohol	177 mg/kg Rat	400 mg/kg Rabbit	0.82 to 2.07 mg/l Rat (4 h)

**SKIN CORROSION/IRRITATION:** Causes skin irritation.

**SERIOUS EYE DAMAGE/IRRITATION:** Causes serious eye irritation.

**TC-1604 PART A****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
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		1
Titanium dioxide (TiO <sub>2</sub> )		2B
Silicon dioxide		3
Epichlorohydrin	2	2A
Silica, Crystalline	1	1


**REPRODUCTIVE TOXICITY:** No data available**STOT-SINGLE EXPOSURE:** No data available**STOT-REPEATED EXPOSURE:** No data available**ASPIRATION HAZARD:** No data available**12. ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release to the environment.**CHEMICAL FATE INFORMATION:** No data available**BIOACCUMULATION/ACCUMULATION:** No data available**ENVIRONMENTAL DATA:** This product may cause risk of hazardous effects to the environment.**DISTRIBUTION:** 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

**TC-1604 PART A****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**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 HEALTH HAZARDS:** Refer to Section 2 for hazard classification.**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:** This product contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Wt. %	CERCLA RQ
Epichlorohydrin	< 0.1	100 lbs.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)****TSCA REGULATORY:** This product does not contain any substances 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	< 0.1	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:**  **WARNING:** This product can expose you to chemicals including [see table below], which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Chemical Name	Wt. %	Listed
Titanium dioxide (TiO2)	1 - 5	● Cancer
Furfuryl alcohol	0.5 - 1.5	● Cancer
Epichlorohydrin	< 0.1	● Cancer ● Male Reproductive

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

**TC-1604 PART A****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).

**16. OTHER INFORMATION**

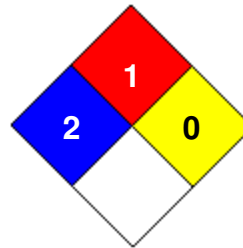
**REASON FOR ISSUE:** Revision

**Date Revised:** 12/07/2021

**REVISION SUMMARY:** This SDS replaces the 10/08/2018 SDS.

**HMIS RATING**

<b>HEALTH</b>	*	<b>2</b>
<b>FLAMMABILITY</b>		<b>1</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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