SAFETY DATA SHEET



Date Prepared: 02/24/2015

SDS No: TC-1618 PART A

Date Revised: 03/06/2018

Revision No: 1

TC-1618 PART A

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TC-1618 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

GHS LABEL



Exclamation mark

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H317: May cause an allergic skin reaction.

PRECAUTIONARY STATEMENTS

Prevention:

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.

Response:

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.

Disposal:

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Epoxy phenol novolac resin	30 - 60	28064-14-4
Barium sulfate	10 - 30	7727-43-7
Aluminum	10 - 30	7429-90-5
1,4-Cyclohexanedimethanol diglycidyl ether	1 - 5	14228-73-0
Titanium oxide (TiO2)	0.5 - 1.5	13463-67-7
Carbon black	0.1 - 1	1333-86-4
Silica, Amorphous	0.1 - 1	7631-86-9

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. Seek medical attention if breathing becomes difficult or if respiratory irritation develops.

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, aldehydes, and phenolics.

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

SMALL SPILL: 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). 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: 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)					
		EXPOSURE LIMITS			
Chemical Name	Туре		ppm	mg/m ³	
	OCHA DEL	TWA	-	-	
	OSHA PEL	STEL	-	-	
Energy phonel mayolog pagin	ACCHITIV	TWA	-	-	
Epoxy phenol novolac resin	ACGIH TLV	STEL	-	-	
	NIOSH REL	TWA	-	-	
	NIOSH KEL	STEL	-	-	
	OSHA PEL	TWA	_[1]	15T 5R ^[1]	
	OSHA PEL	STEL	-	-	
Barium sulfate	ACGIH TLV	TWA	-	10	
Darium surrate	ACGIH ILV	STEL	-	-	
	NIOSH IDLH	TWA	_[1]	10T 5R [1]	
	NIOSH REL	STEL	-	-	
	OSHA PEL	TWA	_[1]	15T 5R ^[1]	
	OSHA PEL	STEL	-	-	
Aluminum	ACGIH TLV	TWA	_[1]	10T 1R ^[1]	
	ACGIH ILV	STEL	-	-	
	NIOSH REL	TWA	_[1]	10T 5R [1]	
	OSHA PEL	TWA	-	-	
	OSHA PEL	STEL	-	-	
1.4 Cyalahayanadimathanal diakaidul athar	ACCIHTIV	TWA	-	-	
1,4-Cyclohexanedimethanol diglycidyl ether	ACGIH TLV	STEL	-	-	
	NIOSH REL	TWA	-	-	
	NIOSH KEL	STEL	-	-	
	OSHA PEL	TWA	_ [2]	15 [2]	
	USHA PEL	STEL	-	-	

Situatium avida (TiO2)		TWA	-	10
Titanium oxide (TiO2)	ACGIH TLV		-	-
	NYOGW PEV		-	-
	NIOSH REL	STEL	-	-
	OCAL A DEA	TWA	-	3.5
	OSHA PEL	STEL	-	-
Contain block	ACGIH TLV	TWA	-	3.5
Carbon black		STEL	-	-
	MIOCH DEL	TWA	-	3.5
	NIOSH REL	STEL	-	-
Silica, Amorphous	OSHA PEL	TWA	20 mppcf [3]	80 %SiO2 ^[3]
	OSHA PEL	STEL	-	-
	ACCITITIV	TWA	-	-
	ACGIH TLV	STEL	-	-
	MIOCH DEL	TWA	-	6
	NIOSH REL	STEL	-	-

Footnotes:

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

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

PHYSICAL STATE: Paste-Like

ODOR: Slight COLOR: Gray

pH: No data available

PERCENT VOLATILE: Nil

FLASH POINT AND METHOD: > 93.3°C (200°F) Closed Cup

VAPOR PRESSURE: No data available VAPOR DENSITY: No data available BOILING POINT: No data available SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY: 1.74 (water=1) at 25°C (77°F) **VISCOSITY #1:** 155000 Centipoise at 25°C (77°F)

(VOC): Nil

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: Product can undergo hazardous polymerization. This product will autopolymerize at very high temperatures.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes, and phenolics.

INCOMPATIBLE MATERIALS: Strong acids, bases, oxidizing agents, and amines.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Chemical Name	ORAL LD ₅₀	DERMAL LD ₅₀	INHALATION LC ₅₀
Epoxy phenol novolac resin	> 2000 mg/kg Rat	> 2000 mg/kg Rabbit	No data available
Barium sulfate	No data available	No data available	No data available
Aluminum	No data available	No data available	No data available
1,4-Cyclohexanedimethanol diglycidyl ether	2450 mg/kg Rat	2500 mg/kg Rabbit	No data available
Titanium oxide (TiO2)	> 10000 mg/kg Rat	No data available	> 6.82 mg/l Rat (4 h)
Carbon black	> 8000 g/kg	No data available	No data available
Silica, Amorphous	> 3300 mg/kg Rat	> 5000 mg/kg Rat	0.139 mg/l Rat (4 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: No data available

CARCINOGENICITY

Chemical Name	IARC Status
Titanium oxide (TiO2)	2В
Carbon black	2В
Silica, Amorphous	3

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

ENVIRONMENTAL DATA: No data available

ECOTOXICOLOGICAL INFORMATION: No specific ecological data are available for this product. Refer to Section 6 for information regarding accidental release and Section 15 for regulatory reporting information.

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): Not Regulated

AIR (ICAO/IATA)

SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (See Note)

TECHNICAL NAME: Epoxy phenol novolac 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: Epoxy phenol novolac resin

UN/NA NUMBER: UN 3082

PRIMARY HAZARD CLASS/DIVISION: 9

PACKING GROUP: III

EmS: F-A, S-F

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

313 REPORTABLE INGREDIENTS: 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:

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS	Comments
Barium sulfate	10 - 30	7727-43-7	Barium Compounds (N040)
Aluminum	10 - 30	7429-90-5	Fume or Dust

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):

None

TSCA (TOXIC SUBSTANCE CONTROL ACT)

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

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 which are known to the State of California to cause cancer, birth defects and/or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Chemical Name	Wt.%	Listed
Carbon black	0.1 - 1	Cancer

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

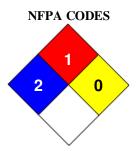
16. OTHER INFORMATION

REASON FOR ISSUE: Revision

Date Revised: 03/06/2018

REVISION SUMMARY: This SDS replaces the 02/24/2015 SDS.





HMIS RATINGS NOTES: Personal Protection: See Section 8

MANUFACTURER DISCLAIMER: This information is furnished without warranty, expressed or implied, except that 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 this data.