



SAFETY DATA SHEET

Date issued : 03/19/2014
 SDS number : TC-1600 PART A
 Date revised : 11/27/2023
 Revision number : 3

TC-1600 PART A

1. Identification

Product identifier: TC-1600 PART A
Relevant identified uses: Epoxy resin

Manufacturer / Supplier

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

Emergency telephone number (24 hour)

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

2. Hazard identification

Classification of the substance or mixture

Health hazards:

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

Environmental hazards:

Chronic Hazards to the Aquatic Environment, Category 2

Physical hazards:

Flammable Liquids, Category 4

Label elements



Health hazard



Exclamation
mark



Environment

Signal word: WARNING

Hazard statement(s)

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.
 H361: Suspected of damaging fertility or the unborn child.
 H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention:

P201: Obtain special instructions before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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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: Store in a well-ventilated place.

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	% w/w	CAS No.
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	30 - 60	1675-54-3
Butyl 2,3-epoxypropyl ether	15 - 40	28064-14-4
n-Butyl glycidyl ether	7 - 13	2426-08-6

4. First-aid measures

Eye: 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.

Indication of immediate medical attention and special treatment needed, if necessary: Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

5. Fire-fighting measures

Suitable extinguishing media: Water spray, carbon dioxide, dry chemical, or foam.

Hazardous combustion products: Carbon monoxide, carbon dioxide, aldehydes, phenolics, and halogenated compounds.

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 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

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container for disposal according to local/national regulations.

Environmental precautions

Water spill: Do not discharge into drains, surface waters, or groundwater.

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.

Precautions for safe 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.

Conditions for safe 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**Exposure controls**

Control parameters				
Chemical name	Occupational exposure limit values			
	Type		ppm	mg/m ³
n-Butyl glycidyl ether	OSHA PEL	TWA	50	270
		STEL	-	-
	ACGIH TLV	TWA	3	-
		STEL	-	-
	NIOSH REL	TWA	5.6	30

Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye / face protection: 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 protection - hand protection: 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 protection: 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).

Skin protection - other: Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH.

Occupational hygiene 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

TC-1600 PART A**Color:** Colorless**Odor:** Slight**pH:** No data available**Initial boiling point and boiling range:** No data available**Flash point:** 81°C (177.8°F) Pensky-Martens CC**Vapor pressure:** No data available**Relative vapor density:** No data available**Relative density:** 1.15 (water=1) at 25°C (77°F)**Solubility:** Insoluble**Dynamic viscosity:** 2000 Centipoise at 25°C (77°F)**VOC content:** < 0.5 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.**Chemical 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, aldehydes, phenolics, and halogenated compounds.**Incompatible materials:** Strong acids, strong bases, and strong oxidizing agents.**11. Toxicological information****Acute toxicity**

Chemical name	LD ₅₀ (oral) mg/kg(rat)	LD ₅₀ (dermal) mg/kg(rabbit)	LC ₅₀ (inhalation) mg/l
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	> 5000 mg/kg Rat	> 2000 mg/kg Rabbit	13.04 mg/l Rat (4 h)
Butyl 2,3-epoxypropyl ether	> 2000 mg/kg Rat	> 2000 mg/kg Rabbit	No data available
n-Butyl glycidyl ether	No data available	No data available	No data available

Skin corrosion / irritation: Causes skin irritation.**Serious eye damage / irritation:** Causes serious eye irritation.**Respiratory or skin sensitization:** May cause sensitization by skin contact.**Germ cell mutagenicity:** Suspected of causing genetic defects.**Carcinogenicity**

Chemical name	IARC
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	3

Reproductive toxicity: Suspected of damaging fertility or the unborn child.**Specific Target Organ Toxicity - single exposure:** No data available**Specific Target Organ Toxicity - 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.**Persistence and degradability:** No data available**Bioaccumulative potential:** No data available

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Environmental data: This product may cause risk of hazardous effects to the environment.

Mobility in soil: No data available

13. Disposal considerations

Disposal methods: 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**USA Department of Transport Regulations (DOT)**

Environmental hazards - marine pollutant: Yes

DOT 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.

ICAO / IATA - air

UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (**See Note**)

Technical name: Bisphenol A epoxy resin

UN number: UN3082

Transport hazard class(es): 9

Packing group: III

ERG: 9L

Hazard 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.

IMO / IMDG - sea

UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s.

Technical name: Bisphenol A epoxy resin

UN number: UN3082

Transport hazard class(es): 9

Packing group: III

EmS: F-A, S-F

Environmental hazards - marine pollutant: Yes

Hazard label: Class 9 (miscellaneous hazardous materials)

15. Regulatory information**UNITED STATES****SARA Section 311/312 Hazard Categories**

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 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).

TC-1600 PART A**CERCLA Hazardous Substances and Reportable Quantities (RQ)**

Chemical name	% w/w	CERCLA rq
Epichlorohydrin	< 0.03	100 lbs.

TSCA (The Toxic Substances 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.

CAA 112(b) Hazardous Air Pollutants

Chemical name	% w/w	CAS No.
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: ⚠ **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.

Chemical name	% w/w	Listed
Epichlorohydrin	< 0.03	<ul style="list-style-type: none"> • Cancer • Male Reproductive

USA OSHA Hazard Communication Standard (29CFR 1910.1200): The contents of the SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

CANADA

WHMIS Regulatory Status: 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 Substances List (DSL) / Non-Domestic Substances List (NDSL): 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

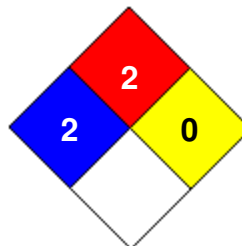
Reason for issue: Revision

Date revised: 11/27/2023

Revision summary: This SDS replaces the 07/08/2020 SDS.

HMIS rating

Health	*	2
Flammability		2
Physical hazard		0
Personal protection	X	

NFPA codes

HMIS ratings notes: Personal Protection: See Section 8

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