

SAFETY DATA SHEET



Date Issued : 2/11/2013
MSDS No : TC-266 PART A
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TC-266 PART A

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TC-266 PART A

GENERAL USE: Polyurethane resin

MANUFACTURER

BJB Enterprises, Inc.
 14791 Franklin Avenue
 Tustin, CA 92780

Customer Service Number: (714) 734-8450

Fax: (714) 734-8929

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation): (800) 424-9300
 or (703) 527-3887 CCN# 2820

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Inhalation), Category 4
 Skin Irritation, Category 2
 Eye Irritation, Category 2A
 Respiratory Sensitization, Category 1
 Skin Sensitization, Category 1
 Carcinogenicity, Category 2
 Target Organ Toxicity (Single exposure), Category 3
 Target Organ Toxicity (Repeated exposure), Category 2

GHS LABEL



Health hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H332: Harmful if inhaled.
 H315: Causes skin irritation.
 H319: Causes serious eye irritation.
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H317: May cause an allergic skin reaction.
 H351: Suspected of causing cancer .
 H335: May cause respiratory irritation.
 H373: May cause damage to organs through prolonged or repeated exposure .

PRECAUTIONARY STATEMENT(S)

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.
 P271: Use only outdoors or in a well-ventilated area.

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P285: In case of inadequate ventilation wear respiratory protection.

P264: Wash ... thoroughly after handling.

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

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

Response:

P304+P341: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

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: Take off contaminated clothing and wash 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.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

Disposal:

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

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE AND ODOR: Brown liquid with a slight musty odor.

IMMEDIATE CONCERNS: Harmful by inhalation. Use in well ventilated areas. Irritating to eyes, skin, and respiratory system. May cause sensitization by inhalation and skin contact. This product is a respiratory irritant and potential respiratory sensitizer. Repeated inhalation of vapour or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons. The onset of the respiratory symptoms may be delayed for several hours after exposure.

Reacts slowly with water to produce carbon dioxide which may rupture closed containers. This reaction accelerates at higher temperatures. Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS

EYES: Causes eye irritation.

SKIN: Causes skin burns, irritation and possible allergic reaction.

INGESTION: May be harmful if swallowed.

INHALATION: Harmful if inhaled. Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to the respiratory system.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing eye, skin, and respiratory conditions may be aggravated by exposure.

ROUTES OF ENTRY: Eye and skin contact, inhalation of vapors, or accidental ingestion.

TARGET ORGANS: Contains material which causes damage to the following organs: upper respiratory tract.

SENSITIZATION: May cause allergic skin and respiratory reaction.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
4,4'-Diphenylmethane diisocyanate	30 - 60	101-68-8
Polymeric diphenylmethane diisocyanate	10 - 30	9016-87-9
isocyanic acid, polymethylenepolyphenylene ester, polymer with 2-methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1)	7 - 13	58228-05-0
oxirane, 2-methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[isocyanatobenzene]	7 - 13	112898-48-3
2,4'-Diphenylmethane diisocyanate	7 - 13	5873-54-1

TC-266 PART A**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, give artificial respiration. If breathing is difficult, give oxygen. 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, nitrous oxides, and HCN.

EXPLOSION HAZARDS: Material will react with water which produces carbon dioxide gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may rupture if overheated.

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

TC-266 PART A

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
4,4'-Diphenylmethane diisocyanate	TWA	0.02	0.2	0.005	0.05	0.005 ^[1]	0.05 ^[1]
	STEL	NE	NE	NE	NE	NE	NE
Polymeric diphenylmethane diisocyanate	TWA	NE	NE	NE	NE	0.005 ^[1]	0.05 ^[1]
	STEL	NE	NE	NE	NE	NE	NE
isocyanic acid, polymethylenepolyphenylene ester, polymer with 2-methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1)	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
oxirane, 2-methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[isocyanatobenzene]	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
2,4'-Diphenylmethane diisocyanate	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE

OSHA TABLE COMMENTS:

1. NIOSH REL

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: Liquid

ODOR: Slightly musty

COLOR: Brown

pH: Not Applicable

PERCENT VOLATILE: Nil

FLASHPOINT AND METHOD: > 110°C (230°F) Setaflash (closed cup)

VAPOR PRESSURE: Not Established

VAPOR DENSITY: 8.5 (Air=1)

TC-266 PART A**BOILING POINT:** > 300°C (572°F) Decomposes**SOLUBILITY IN WATER:** Reacts with water**SPECIFIC GRAVITY:** 1.19 (water=1) at 25°C (77°F)**VISCOSITY:** 205 Centipoise at 25°C (77°F)**VOC (Volatile Organic Compound):** Nil Calculated. Theoretical VOC minus water and exempt solvents.**10. STABILITY AND REACTIVITY****STABILITY:** This product is stable under normal ambient conditions of temperature and pressure.**POLYMERIZATION:** May occur when exposed to heat in the presence of moisture, alkalies, tertiary amines, metal compounds.**CONDITIONS TO AVOID:** High temperatures, moisture, and freezing conditions.**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous reactions will not occur under normal transport or storage conditions.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, nitrous oxide, and HCN.**INCOMPATIBLE MATERIALS:** Water, alcohols, amines, bases, and acids.**11. TOXICOLOGICAL INFORMATION****TOXICITY TO ANIMALS**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
4,4'-Diphenylmethane diisocyanate	> 10000 mg/kg	> 9400 mg/kg	0.49 mg/l (4 h)
Polymeric diphenylmethane diisocyanate	> 10000 mg/kg	> 9400 mg/kg	310 mg/m ³ (4 h)
isocyanic acid, polymethylenepolyphenylene ester, polymer with 2-methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1)	Not Established	Not Established	Not Established
oxirane, 2-methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[isocyanatobenzene]	Not Established	Not Established	Not Established
2,4'-Diphenylmethane diisocyanate	Not Established	> 9400 mg/kg	0.49 mg/l (4 h)

CHRONIC EFFECTS: Contains material that can cause target organ damage. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.**CARCINOGENICITY**

Chemical Name	IARC Status
4,4'-Diphenylmethane diisocyanate	3
Polymeric diphenylmethane diisocyanate	3

IARC: This product contains substances that are not classifiable as carcinogens to humans.**IRRITATION:** Causes eye and skin irritation.**SENSITIZATION:** May cause sensitization by inhalation and skin contact.**TARGET ORGANS:** Contains material which causes damage to the following organs: upper respiratory tract.**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.

TC-266 PART A**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) LAND: Not Regulated

AIR (ICAO/IATA): Not Regulated

VESSEL (IMO/IMDG): Not Regulated

15. REGULATORY INFORMATION**UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

311/312 HAZARD CATEGORIES: Acute health hazard. Chronic 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
4,4'-Diphenylmethane diisocyanate	30 - 60	101-68-8	Diisocyanate Compounds (Category Code N120)
Polymeric diphenylmethane diisocyanate	10 - 30	9016-87-9	Diisocyanate Compounds (Category Code N120)

CERCLA (COMPREHENSIVE 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
4,4'-Diphenylmethane diisocyanate	30 - 60	5,000 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This product contains chemical(s) subject to TSCA Section 12(b) export notification:
None

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: 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):
None

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

CANADA**WHMIS HAZARD SYMBOL AND CLASSIFICATION**

TC-266 PART A



D1A - Very Toxic



D2A - Very Toxic



D2B - Toxic

WHMIS CLASSIFICATION

Class D1A: Poisonous and infectious material (Very toxic).

Class D2A: Poisonous and infectious material (Very toxic).

Class D2B: Poisonous and infectious material (Toxic).

WHMIS HEALTH EFFECTS CRITERIA

D1A - Acute lethality

D2A - Chronic toxicity

D2A - Respiratory tract sensitization

D2B - Skin irritation

D2B - Skin Sensitization

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS CLASS: The D1A classification applies for this material in aerosol or mist form.

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

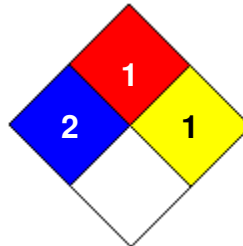
REASON FOR ISSUE: Revision

REVISION SUMMARY: This MSDS replaces the 5/28/2013 MSDS.

HMIS RATING

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		1
PERSONAL PROTECTION	X	

NFPA CODES



HMIS RATINGS NOTES: Personal Protection: See Section 8

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