SAFETY DATA SHEET

Date issued : 10/01/2008
SDS number : TC-9462 PART A
Date revised : 10/13/2023
Revision number : 4

TC-9462 PART A

1. Identification

Product identifier: TC-9462 PART A
Relevant identified uses: Polyurethane 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:

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

Environmental hazards:

Chronic Hazards to the Aquatic Environment, Category 3

Label elements


Skull and crossbones


Health hazard

Signal word: DANGER

Hazard statement(s)

H331: Toxic 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.
H335: May cause respiratory irritation.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P284: In case of inadequate ventilation wear respiratory protection.
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:

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310: Immediately call a POISON CENTER/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+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.

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.

3. Composition/information on ingredients

Chemical name	% w/w	CAS No.
Cycloaliphatic diisocyanate prepolymer	60 - 80	Proprietary
Dicyclohexylmethane-4,4'-diisocyanate	10 - 20	5124-30-1
Isophorone diisocyanate	1 - 5	4098-71-9

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, and isocyanate-containing vapors.

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 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

Precautions for safe handling: Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating.

Conditions for safe 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

Exposure controls

Control parameters				
	Occupational exposure limit values			
Chemical name	**Type**		**ppm**	**mg/m³**
Dicyclohexylmethane-4,4'-diisocyanate	**OSHA PEL**	**TWA**	-	-
		STEL	-	-
		C	0.01 [1]	011 [1]
	ACGIH TLV	**TWA**	0.005	-
		STEL	-	-
	NIOSH REL	**TWA**	-	-
		STEL	-	-
		C	0.01	0.11
Isophorone diisocyanate	**OSHA PEL**	**TWA**	-	-
		STEL	-	-
	ACGIH TLV	**TWA**	0.005	-
		STEL	-	-
	NIOSH REL	**TWA**	0.005	0.045
		STEL	0.02 [1]	0.18 [1]

Footnotes:
1. Skin

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: Local exhaust should be used to maintain levels below the TLV whenever this diisocyanate is heated, sprayed, or

aerosolized. Airborne Dicyclohexylmethane-4,4'-Diisocyanate (HMDI) concentrations greater than the appropriate standard/guideline can occur in inadequately ventilated environments when Dicyclohexylmethane-4,4'-Diisocyanate (HMDI) is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. Use respiratory equipment with suitable filter (combined filter A2-P2) or wear a self contained respiratory apparatus. Consider the type of application, environmental concentrations, and other materials being used concurrently when determining respirator use and selection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

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

Color: Colorless

Odor: Slight

pH: No data available

Initial boiling point and boiling range: No data available

Flash point: 157.2°C (315°F) Pensky-Martens CC

Vapor pressure: No data available

Relative vapor density: No data available

Relative density: 1.05 (water=1) at 25°C (77°F)

Solubility: Reacts slowly with water

Dynamic viscosity: 6650 Centipoise at 25°C (77°F)

VOC content: < 0.3 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.

Chemical stability: This product is stable under normal ambient conditions of temperature and pressure.

Conditions to avoid: High temperatures, moisture, and freezing conditions.

Possibility of hazardous reactions: Reacts violently with amines (exothermic). Exothermic reactions with acids, alkalis, powerful oxidants, and alcohols. Reacts with water, whereby carbon dioxide is produced; pressure may build up in closed containers (danger of bursting).

Hazardous decomposition products: Carbon monoxide, carbon dioxide, and isocyanate-containing vapors.

Incompatible materials: Water, alcohols, amines, acids, 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
Cycloaliphatic diisocyanate prepolymer	No data available	No data available	No data available
Dicyclohexylmethane-4,4'-diisocyanate	18200 mg/kg Rat	> 7000 mg/kg Rat	0.33 mg/l Rat (4 h, dust/mist)
Isophorone diisocyanate	4814 mg/kg Rat	> 7000 mg/kg Rat	0.031 mg/l Rat (4 h, dust/mist)

Skin corrosion / irritation: Causes skin irritation.

Serious eye damage / irritation: Causes serious eye irritation.

Respiratory or skin sensitization: May cause sensitization by inhalation and skin contact.

Germ cell mutagenicity: No data available

Reproductive toxicity: No data available

Specific Target Organ Toxicity - single exposure: May cause respiratory irritation.

Specific Target Organ Toxicity - repeated exposure: No data available

Aspiration hazard: No data available

12. Ecological information

Ecotoxicological information: Harmful 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

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): Not Regulated

ICAO / IATA - air: Not Regulated

IMO / IMDG - sea: Not Regulated

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 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 Toxic Chemicals

Chemical name	% w/w	CAS No.	Comments
Dicyclohexylmethane-4,4'-diisocyanate	10 - 20	5124-30-1	Diisocyanate Compounds (Category Code N120)
Isophorone diisocyanate	1 - 5	4098-71-9	Diisocyanate Compounds (Category Code N120)

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).

CERCLA Hazardous Substances and Reportable Quantities (RQ)

Chemical name	% w/w	CERCLA rq
Naphthalene	< 0.001	100 lbs.
Ethyl acrylate	< 0.00001	1,000

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.

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. For more information, go to www.P65Warnings.ca.gov.

Chemical name	% w/w	Listed
Naphthalene	< 0.001	• Cancer
Ethyl acrylate	< 0.00001	• Cancer

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).

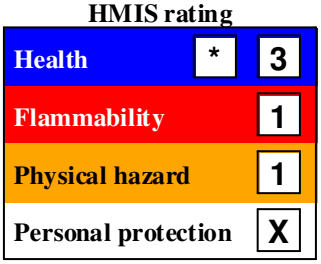
16. Other information

Reason for issue: Revision

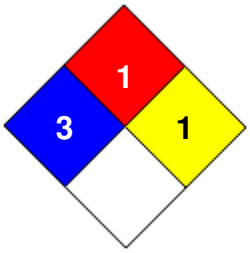
Date revised: 10/13/2023

Revision summary: This SDS replaces the 03/25/2020 SDS.

HMIS rating



NFPA codes



HMIS ratings notes: Personal Protection: See Section 8

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