

ENDURANCE TECHNOLOGIES, INC.

275 Bridge Point Drive, So. St. Paul, MN 55075

Material Safety Data Sheet

800-755-8568 / FAX (651) 451-9728

1. CHEMICAL PRODUCT IDENTIFICATION

PRODUCT NAME	PRODUCT CLASS	PRODUCT HAZARDS	24 HOUR EMERGENCY ASSISTANCE
CPD 9135A	Polyurethane Prepolymer	Possible Sensitizer	(800) 424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

DESCRIPTION	CAS NUMBER	EXPOSURE LIMITS		LD50	LD50
		TLV	PEL	ORAL	DERMAL
Dicyclohexylmethane-4,4'-Diisocyanate (HMDI)	5124-30-1	0.005 ppm	0.005 ppm	9.9 g/kg (rat)	>10 g/kg (rabbit)

NE = not established, TS = trade secret Remaining ingredients are not regulated by OSHA and are considered trade secrets.

3. HAZARDS IDENTIFICATION

CHRONIC EFFECTS:	Skin and respiratory sensitization.	SKIN CONTACT:	Possible skin irritant and sensitizer.
EYE:	Will cause eye irritation.		
SKIN ABSORPTION:	Can be absorbed through skin.	INGESTION:	Will cause illness.
INHALATION:	Harmful, may cause an allergic reaction and lung damage.		
HMS RATING:	HEALTH 3	FLAMMABILITY 1	REACTIVITY 0
CARCINOGENICITY:	Not listed as an IARC, OSHA or ACGIH potential carcinogen.		
SPECIAL PRECAUTIONS IN HANDLING AND STORAGE:	Emergency eyewash stations and safety showers must be close to any area of possible exposure.		
PERSONAL PROTECTION G:			

4. FIRST AID MEASURES

EYES:	Flush with water immediately. Continue to flush for 30 minutes and obtain emergency medical attention.
SKIN:	Remove and do not reuse contaminated clothing. Wash exposed areas thoroughly with soap and water and flush for at least 15 minutes. It is not recommended to remove resin from skin with solvents. Solvents increase contact and dry the skin.
INGESTION:	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.
INHALATION:	Remove to fresh air. If breathing is labored administer oxygen. Seek immediate medical attention.

5. FIREFIGHTING MEASURES

FLAMMABILITY:	Combustible liquid.	FLASH POINT:	200°C
LOWER EXPLOSIVE LIMITS:	No data available.	EXTINGUISHING MEDIA:	Foam, water fog, dry chemical, carbon dioxide
FIRE & EXPLOSIVE HAZARDS:	High temperature will cause combustion.	SPECIAL FIREFIGHTING PROCEDURES:	Use supplied air full face respirators and impervious turn out gear.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL: Remove all possible sources of ignition or polymerization (see Section 5). Equip personnel with proper protection (see Section 7). Dike in spill to prevent from spreading. Collect for disposal. Use absorbent to soak up remainder of liquid and place in open top container. Leave ventilated for 24 hours before disposal. Notify authorities as required by law.

WASTE DISPOSAL METHOD: Remove contaminated materials for disposal at a permitted facility using registered transporters. Controlled incineration or buried landfill disposal should be in accordance with all federal, state and local environmental regulations.

7. HANDLING, STORAGE, AND PERSONAL PROTECTION

VENTILATION: Use and store only with adequate ventilation or use respiratory protection.

RESPIRATORY: If vapors are present, use a NIOSH/MSHA approved respirator.

EYE PROTECTION: Splash goggles or a full face shield should be worn.

SKIN PROTECTION: Do not allow any skin contact. If potential for skin contact is present, impervious protection clothing should be worn.

8. PHYSICAL AND CHEMICAL PROPERTIES

VAPOR DENSITY:	Not established	VAPOR PRESSURE:	0.000016 mm Hg at 25°C
SOLUBILITY IN WATER:	Insoluble, reacts	SPECIFIC GRAVITY:	0.977
APPEARANCE:	Clear to yellow liquid	ODOR:	Slight

9. STABILITY AND REACTIVITY

STABILITY: Stable, will react with amines, hydroxyl functional materials (water).

HAZARDOUS POLYMERIZATION: Will autopolymerize at very high temperatures only.

HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, carbon dioxide, carbon monoxide, oxides of nitrogen, traces of HCN, dicyclohexylmethane-4,4'-diisocyanate.

CONDITIONS TO AVOID: Moisture, high heat, amines, strong oxidizers, acids and bases.

INCOMPATIBILITY: Water, amines, alcohol, strong acids, bases and oxidizers.

10. TRANSPORTATION AND REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION 49CFR172.101-102 CLASSIFICATION: Hazardous

IATA SHIPPING DESCRIPTION: UN3334, Aviation Regulated Liquid, N.O.S. (Dicyclohexylmethane-4,4'-diisocyanate), 9

SHIPPING DESCRIPTION: NA3082, Other Regulated Substances, Liquid, N.O.S. (Dicyclohexylmethane-4,4'-diisocyanate), 9, III

REQUIRED HAZARD LABEL: Class 9, Miscellaneous

TCSA: Components of this product are listed on the EPA/TCSA inventory of chemical substances.

SARA/TITLE III: Section 311/312: Acute health
Section 313 Listed Chemicals: 4,4'-methylenedicyclohexyl diisocyanate (CAS 5124-30-1)

This information contained above is given in good faith based on the best data available at this time. No warranty, expressed or implied is made. User assumes full responsibility for determining appropriate use and application of the product. Consult Endurance Technologies, Inc. for further information.

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1. CHEMICAL PRODUCT IDENTIFICATION

PRODUCT NAME	PRODUCT CLASS	PRODUCT HAZARDS	24 HOUR EMERGENCY ASSISTANCE
CPD 9135B	Polyurethane Curative	Possible Sensitizer	(800) 424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

DESCRIPTION	CAS NUMBER	EXPOSURE LIMITS		LD50	LD50
		TLV	PEL	ORAL	DERMAL
Aliphatic Diamines	154279-60-4	NE	NE	460mg/kg	NE

NE = not established, TS = trade secret Remaining ingredients are not regulated by OSHA and are considered trade secrets.

3. HAZARDS IDENTIFICATION

CHRONIC EFFECTS: Skin and respiratory sensitization. **SKIN CONTACT:** Corrosive to skin and sensitizer.
EYE: Corrosive to eyes.
SKIN ABSORPTION: Can be absorbed through skin. **INGESTION:** Will cause illness.
INHALATION: Corrosive to respiratory tract. May cause an allergic reaction.
HMS RATING: **HEALTH 3 FLAMMABILITY 1 REACTIVITY 0 PERSONAL PROTECTION G**
CARCINOGENICITY: Not listed as an IARC, OSHA or ACGIH potential carcinogen.
SPECIAL PRECAUTIONS IN HANDLING AND STORAGE: Emergency eyewash stations and safety showers must be close to any area of possible exposure.

4. FIRST AID MEASURES

EYES: Flush with water immediately. Continue to flush for 30 minutes and obtain emergency medical attention.
SKIN: Remove and do not reuse contaminated clothing. Wash exposed areas thoroughly with soap and water and flush for at least 15 minutes. It is not recommended to remove resin from skin with solvents. Solvents increase contact and dry the skin.
INGESTION: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.
INHALATION: Remove to fresh air. If breathing is labored administer oxygen. Seek immediate medical attention.

5. FIREFIGHTING MEASURES

FLAMMABILITY: Combustible liquid **FLASH POINT:** 163°C Closed Cup
LOWER EXPLOSIVE LIMITS: No data available. **EXTINGUISHING MEDIA:** Foam, water fog, dry chemical, carbon dioxide.
FIRE & EXPLOSIVE HAZARDS: High temperature will cause combustion. **SPECIAL FIREFIGHTING PROCEDURES:** Use supplied air full face respirators and impervious turn out gear.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL: Remove all possible sources of ignition or polymerization (see Section 5). Equip personnel with proper protection (see Section 7). Dike in spill to prevent from spreading. Collect for disposal. Use absorbent to soak up remainder of liquid. Notify authorities as required by law.

WASTE DISPOSAL METHOD: Remove contaminated materials for disposal at a permitted facility using registered transporters. Controlled incineration or buried landfill disposal should be in accordance with all federal, state and local environmental regulations.

7. HANDLING, STORAGE, AND PERSONAL PROTECTION

VENTILATION: Use and store only with adequate ventilation or use respiratory protection.

RESPIRATORY: If vapors are present, use a NIOSH/MSHA approved respirator.

EYE PROTECTION: Splash goggles or a full face shield should be worn.

SKIN PROTECTION: Do not allow any skin contact. If potential for skin contact is present, impervious protection clothing should be worn.

8. PHYSICAL AND CHEMICAL PROPERTIES

VAPOR DENSITY:	Heavier than air	VAPOR PRESSURE:	<1.0 mm Hg at 20°C
SOLUBILITY IN WATER:	Not established	SPECIFIC GRAVITY:	0.90
APPEARANCE:	Colorless to amber liquid	ODOR:	Slight amine odor
VOC MATERIAL	None		

9. STABILITY AND REACTIVITY

STABILITY: Stable, will react with resins and prepolymers.

HAZARDOUS POLYMERIZATION: Will autopolymerize at very high temperatures only.

HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, carbon dioxide, carbon monoxide, acrid smoke.

CONDITIONS TO AVOID: High heat, amines, strong oxidizers, acids and bases.

INCOMPATIBILITY: Strong acids, bases and oxidizers.

10. TRANSPORTATION AND REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION 49CFR172.101-102 CLASSIFICATION: Hazardous

SHIPPING DESCRIPTION: UN2922, Corrosive Liquid, Toxic, N. O. S. (contains Aliphatic diamines), 8 (6.1), II

REQUIRED HAZARD LABEL: Corrosive, Toxic

TCSA: Components of this product are listed on the EPA/TCSA inventory of chemical substances.

SARA/TITLE III Section 311/312: Acute health **Section 313 Listed Chemicals:** None

This information contained above is given in good faith based on the best data available at this time. No warranty, expressed or implied is made. User assumes full responsibility for determining appropriate use and application of the product. Consult Endurance Technologies, Inc. for further information.