



Diamapro-Thane HPU Part A

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

MANUFACTURER: Diamapro Systems, Inc. EMERGENCY PHONE: 1-800-424-9300
ADDRESS: 4833 Sandy Porter Road INFORMATION PHONE: 1-800-622-2048
Charlotte, NC 28273 NAME OF PREPARER: Safety Director

PRODUCT NAME: Diamapro Diamapro-Thane HPU Part A

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview: Caution-Contains Hexamethylene Diisocyanate (HDI) (CAS no. 822-06-0). Inhalation of HDI mists or vapors may cause respiratory irritation, breathlessness, chest discomfort, and reduced pulmonary function. Overexposure well above the PEL may result in bronchitis, bronchial spasms, and pulmonary edema.

Long-term exposure to isocyanates has been reported to cause lung damage, including reduced lung function which may be permanent. Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting in allergic respiratory reactions including wheezing, shortness of breath, and difficulty breathing.

May cause sensitization by skin contact.

May cause respiratory tract irritation.

Eye wash fountains and safety showers must be easily accessible.

Hand in accordance with good industrial hygiene and safety practice. Wear protective clothing.

GHS Classification

Acute toxicity (Inhalation-mist)	Category 4
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity- single exposure (irritating to respiratory system)	Category 3

DANGER

H317: May cause an allergic skin reaction

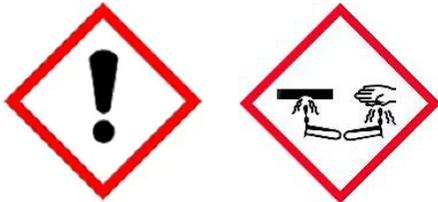
H318: Causes serious eye damage

H412: Harmful to aquatic life with long lasting effects.

GHS Format SDS

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Precautionary statements

P280: Wear protective gloves

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

P260: Do not breathe mist or vapor

P261: Avoid breathing mist

P284: In case of inadequate ventilation, wear respiratory protection

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

Precautionary statements (response)

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P303 + P352: IF ON SKIN (or hair): Wash with plenty of soap and water.

P333 + P311: If skin irritation or rash occurs: Call a POISON CENTER or

Storage: Keep container tightly closed and locked in a cool, well-ventilated place.

Disposal: Dispose of contents/container to an approved waste disposal plant in accordance with applicable laws and regulations, and product characteristics at time of disposal.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Chemical Name	CAS No.	Concentration (% by Weight)
Homopolymer of Hexamethylene Diisocyanate	28182-81-2	90-100%
Hexamethylene Diisocyanate	<0.5%	822-06-0



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SECTION 4 - FIRST AID MEASURES

General advice: Seek medical advice or medical attention if condition persists.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes.

Skin contact: Immediately remove any extraneous chemical, if possible without delay. Take off contaminated clothing and shoes immediately. Wash body off with soap and plenty of water.

Ingestion: Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position and turn victim's head to the side. Do not induce vomiting.

Inhalation: Move to fresh air. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Notes to Physician: No specific treatment. Treat symptomatically. Call the poison control center immediately if large quantities have been ingested.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

Suitable Extinguishing Media

Carbon dioxide Foam. Dry Chemical

Specific hazards: Closed container may forcibly rupture under extreme heat or when content are contaminated with water forming carbon dioxide (CO₂). Use cold water to cool fire-exposed containers to minimize the risk of rupture. During a fire, isocyanate vapors and other irritating, highly toxic gases may generate by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

Special protective equipment for fire-fighters: Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

Danger of explosion: This product does not present an explosion hazard

Flammable Limits: not available

Explosive Limits: not available

Auto-Ignition: 805°F (403°C)

Flash point: Open Cup: 437°F (225°C), Closed cup: 338°F (170°C)



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SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution (sewers, drains, waterways or soil).

Methods for Cleaning up: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7 - HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment, PPE (see Section 8). Eating and drinking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated PPE or clothing, wash hands and face before eating and drinking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Use only in area provided with appropriate exhaust ventilation. Empty containers retain product residue and can be hazardous. Do not get in eyes, skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment.

Storage: Store between 4 to 30°C (40 to 86°F) in accordance with local regulations away from sources of heat, ignition, and direct sunlight. Store in original container. Keep in a dry, well-ventilated area, and away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled, unapproved or reactive containers. Use appropriate containment to avoid environmental contamination.



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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters:

Component	CAS	General Exposure Limits	General Exposure Limits
Aliphatic Polyisocyanate	28182-81-2	TWA 0.5 mg/m ³	STEL 1.0 mg/m ³ (15-min)
Hexamethylene Diisocyanate (<0.5%)	822-06-0	ACGIH TWA 0.005 ppm	CLV 0.02 ppm

OSHA PEL (TWA): not determined

NIOSH REL (TWA): not determined

Engineering measures: Work in well-ventilated area. Provide natural or explosion-proof fan to ensure adequate ventilation, especially in confined area. Avoid contact with skin, eyes, and clothing.

Environmental exposure controls: Construct a dike to prevent spreading. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection:

Respiratory - In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eyes – Splash proof safety glasses.

Skin - Rubber or plastic apron. Rubber or plastic gloves. Long sleeved clothing or wear protective sleeves. Remove and wash contaminated clothing before re-use.

Other protective equipment information: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Neoprene gloves. PVC disposable gloves. Nitrile rubber. Butyl-rubber. Impervious gloves. (The breakthrough time of the selected glove(s) must be greater than the intended use period.)

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Odor	Mild
Odor Threshold	No data available
pH	Not Applicable
Melting/Freezing Point	No data available
Initial Boiling Point and Boiling Range	>150°C
Flash Point	170°C Closed Cup
Evaporation Rate	No data available
Flammability	No data available
Upper/Lower Flammability or Explosive Limits	No data available
Auto-ignition Temperature	No data available
Vapor Pressure	4.7x10 ⁻⁷ mmHg @ 70°F
Vapor Density	Not Applicable
Relative Density/Specific Gravity	>1.0 g/cm ³ @ 70°F
Solubility(ies)	Reacts with water
Partition Coefficient: n-octanol/water	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
VOC (Volatile Organic Compounds)	<100 g/L

SECTION 10 - STABILITY AND REACTIVITY DATA

Chemical Stability: Stable under normal conditions

Conditions to be avoided: Moisture. Excessive heat

Substances to be avoided: Water, alcohols, amins, acids, strong bases, substances/products that react with isocyanates

Hazardous decomposition products: Carbon dioxide, carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gasses/vapors.

Further information: Under normal conditions hazardous polymerization will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: LD50/rat >5000 mg/kg

Sensitization: guinea pig: sensitizing

Inhalation sensitization: Guinea pig: No

Human: long term studies show over-exposure may cause irritation of eyes, nose, throat and asthma.



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SECTION 12 - ECOLOGICAL INFORMATION

No environmental hazard is anticipated provided that the material is handled and disposed of with due care and attention.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste should be disposed of according to local, state, and federal regulations. Chemical residues are generally classified as special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice or pass to a chemical disposal company. Dispose of containers with care.

SECTION 14 - TRANSPORT INFORMATION

	UN Number	UN Proper Shipping Name	Transport Hazard Class(es)	Packing Group	Environmental Hazards
DOT	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
IMO/IMDG	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
IATA/CAO	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code.

SECTION 15 - REGULATORY INFORMATION

Country	Regulatory List	Notification
USA	TSCA	Included on inventory
EU	EINECS	Listed under polymer exempt
Canada	DSL	Included on inventory
China	SEPA ENCS	Included on inventory
Japan		Included on inventory

OSHA – This product is considered a hazardous chemical under 29 CFR 1910.1200.

RCRA – Not a hazardous waste.

Clean Air Act Section 112 - Hexamethylene Diisocyanate 822-06-0

SARA Section 311 AND 312 - This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and



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Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: ACUTE, CHRONIC

SARA Section 313 - 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: None

SECTION 16 - OTHER INFORMATION

Hazardous material Information System (HMIS):

	NFPA	HMIS
Health	1	1
Flammability	2	2
Reactivity	1	1

Personal Protection: Safety goggles, neoprene rubber gloves, vapor respirator

Revision Date: 9/26/2025

By: Scott Thome

The information herein is based on data considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or results. Also this shall not establish a legally valid contractual relationship.

Vendor assumes no responsibility for injury to vendee or third person proximately caused if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in use of the material.

Our products are intended for sale to industrial and commercial customers. We encourage customers to inspect and test our products before use and to satisfy themselves as to suitability for their specific applications.

Warranty: The manufacturer warrants that products sold comply with specifications as represented and will perform satisfactorily if used according to the directions, or the manufacturer will refund or replace any unused portion thereof, for a period of one year from the date of manufacture.



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The manufacturer does not make any other warranty, or assume responsibility of any kind, expressed or implied regarding the effect or result of the products use; and assumes no responsibility of injury to vendee or third parties proximately caused by the material if reasonable safety procedures are not adhered to.