



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE AND SUPPLIER

ASDI Number: 500013589
Address: 601 Interchange Blvd., Newark, DE 19711
Emergency Tel No: (302) 266-6891 ASDI
Fax: (302) 266-8296 ASDI

2. COMPOSITION AND INFORMATION ON COMPONENTS

Product Name: 1,4-Phenylene Diisocyanate
CAS No: 104-49-4
Synonyms: Isocyanic acid p-phenylene ester

3. HAZARDS IDENTIFICATION

Designation: Toxic - The toxicological effects of this chemical have not been fully investigated. Seek medical attention in all cases of exposure.; Combustible - By 49 CFR Flash Point 100-200 F (38-93C) USA Standards; Highly toxic

General Risk: Avoid inhalation, contact with skin or eyes, and ingestion. Follow safe industrial hygiene practices and always wear personal protective equipment when handling this compound.; Harmful if inhaled, swallowed, or absorbed through the skin; Toxic by inhalation, in contact with skin or eyes, and if swallowed; Avoid prolonged or repeated exposure

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. In cases of serious discomfort seek medical attention. If not breathing, trained personnel should administer oxygen or artificial respiration.; If required, provide artificial respiration; Remove to fresh air; If breathing is difficult, oxygen can be administered.

Eye Contact: Flush eyes with water for 15 minutes occasionally lifting the upper and lower eyelids.; Flush with copious amounts of water for at least 20 minutes. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing and shoes. Rinse affected area with copious amounts of non-abrasive soap and water for at least 15 minutes.; Remove contaminated clothing. Rinse affected area with copious amounts of water. Rinse thoroughly. In case of skin damage or persistent irritation seek immediate medical attention. Show the physician the container details.

Ingestion: Do not induce vomiting; Seek medical help; Call a physician or poison control center immediately. Induce vomiting only if instructed to do so by medical personnel. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES



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Extinguishing Medium:	DO NOT USE WATER on this chemical fire; Use fire fighting measures which suit the environment and take into account other materials which may be involved. Use carbon dioxide or dry powder for fires involving this material. In general, water-based extinguishers are not recommended for fires involving organic materials. ; Use a dry chemical fire extinguisher; Use a CO2 fire extinguisher
Protective Equipment:	Wear self-contained breathing apparatus and protective clothing. Most compounds emit toxic gases when burning.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection:	Avoid inhalation or contact of spilled material with skin or clothing. Wear protective clothing. Keep unprotected persons away.; Wear safety glasses or splash goggles, compatible protective gloves, and appropriate respirator for material involved.
Environmental Protection:	Take precautions to ensure product does not contaminate the ground or enter the drainage system.; Evacuate area.; Keep away from ignition sources and heat.
Collection:	Sweep and place into bag for disposal. Minimize dust collection and wear a respirator. Dispose of with an approved contractor in accordance with local, state and federal laws.; Contain or absorb, as appropriate. Minimize dust generation, where applicable. Dispose according to Section 13.; Ensure adequate ventilation

7. HANDLING AND STORAGE

Handling:	Avoid breathing dust, vapor, mist, or gas.; Moisture sensitive; Chemicals should be used only by those trained in handling potentially hazardous materials. Chemical resistant gloves, eye protection and protective clothing should be worn. Operations should be carried out in efficient fume hood or equivalent system. Avoid breathing of dust, vapor, mist, or gas.
Storage:	Keep away from ignition sources; Store in cool, dry place.; Store in a cool, dry, well ventilated area. Store in a tightly sealed container. Protect from moisture, heat, ignition sources, and incompatible substances. Protect from direct light. See stability and reactivity for more details on incompatible substances.; Store in a sealed container; Avoid excessive heat; Avoid excessive light exposure

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory:	Provide exhaust ventilation; Use in fume hood; Avoid inhalation of product. Handle in an efficient fume hood or equivalent system.
Eye:	Avoid eye contact. Wear safety glasses, goggles or, for larger quantities, a full-face shield.
Hands and Body:	Avoid skin contact. Wear chemical-resistant gloves and, for larger quantities, a full arm and body protection. Wash hands thoroughly after handling.

9. EXPOSURE CONTROLS AND PERSONAL PROTECTION



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Appearance:	WHITE CRYSTALS OR PALE YELLOW CHUNKY SOLID
Boiling Point:	260C
Melting Point:	96-99C
Molecular Formula:	C8H4N2O2
Water Solubility:	NEGLIGIBLE
Flash Point:	113C (235F)
Formula Weight:	160.1333
Density:	1.17
Lower Explosive Limit:	N/A
Upper Explosive Limit:	N/A
PEL:	N/A
Auto Ignition Point:	N/A

10. STABILITY AND REACTIVITY

Reacts with oxidizers; Reacts with acids; Reacts with amines; Reacts with alkali metals and alkaline earth metals. Reacts with reactive organic and inorganic chemicals.; No specific data on stability, incompatibility, or reactivity is currently available. Keep away from high temperature, flames, sparks and oxidizing agents.; Incompatible with alcohols; Reacts with water, may form toxic or explosive gases

11. TOXICOLOGICAL INFORMATION

Material is irritating to mucous membranes and upper respiratory tract; The toxicological properties of this compound have not been fully investigated. However, as a minimum precaution, it should be considered to be harmful. Precautions should be taken and procedures adopted to prevent exposure. Hazardous decomposition products may occur when this compound comes in contact with other chemicals, fire, or water.; Cause eye and skin irritation.

12. ECOLOGICAL EFFECTS

Take care to prevent chemicals from entering the ground, water bodies, or drainage systems.

13. DISPOSAL CONSIDERATIONS

Disposal should be carried out via an approved contractor according to all federal, state, and local regulations.; Recycle to process, if possible.

14. TRANSPORT INFORMATION

UN Number:	2811
Packing Group:	III
Hazard Class:	No data available
DOT ShipName:	No data available



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Other Information:

Class 6.1 Toxic

15. REGULATORY INFORMATION

ALL or some of the components of this substance ARE LISTED on the EPA Toxic Substance Control Act (TSCA) inventory

16. OTHER INFORMATION

The information on this Material Safety Data Sheet is correct to the best of our knowledge as of the date of publication. This information should be used only as a guide and is not a guarantee of any specific properties. All chemicals should be handled by qualified personnel using proper handling precautions. ASDI cannot accept liability for any loss, damage, or injury that results from the use of this chemical. THIS SUBSTANCE IS FOR RESEARCH AND DEVELOPMENT PURPOSES ONLY.