



*Specialized in chemicals*

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## Material Safety Data Sheet

### 1,4-phenylene diisocyanate MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** 1,4- phenylene diisocyanate

**CAS No:**104-49-4

**Synonym:** p-Phenylene isocyanate

**Chemical Name:** 1,4- phenylene diisocyanate

**Chemical Formula:** C<sub>8</sub>H<sub>4</sub>N<sub>2</sub>O<sub>2</sub>

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#### Section 2: Composition and Information on Ingredients

**Composition:**

Name	CAS # %	By Weight
1,4- phenylene diisocyanate	104-49-4	100

**Toxicological Data on Ingredients:** Not applicable.

#### Section 3: Hazards Identification

##### Emergency Overview

Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation.

Lachrymator.

##### HMIS RATING

HEALTH: 3\*

FLAMMABILITY:0  
REACTIVITY: 1  
NFPA RATING  
HEALTH: 3  
FLAMMABILITY:0

#### Section 4: First Aid Measures

##### ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious, Call a physician.

##### INHALATION EXPOSURE

If inhaled, remove to fresh air, If breathing becomes difficult, call a physician.

##### DERMAL EXPOSURE

In case of skin contact, flush with copious amount of water for at least 15 minutes. Remove contaminated clothing and shoes.

##### EYE EXPOSURE

In case of contact with eyes, flush with copious amount of water for at least 15 minutes.

Assure adequate flushing by separating the eyelids with fingers. Call a physician.

#### Section 5: Fire and Explosion Data

**Method:** closed cup

##### Extinguishing Media:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

#### Section 6: Accidental Release Measures

Procedure to be followed in case of leak or spill Evacuate area.

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods For Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

#### Section 7: Handling and Storage

**Handling:** User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

#### Section 8: Exposure Controls/Personal Protection

**Engineering Controls:** Safety shower and eye bath. Use only in a chemical fume hood.

**PERSONAL PROTECTIVE EQUIPMENT**

Eyes: Chemical safety goggles.  
Hand: Compatible chemical-resistant gloves  
Respirators: Government approved respirator  
General Hygiene Measures: Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

## Section 9: Physical and Chemical Properties

Physical State: Solid  
Density: 1.17g/cm<sup>3</sup>  
Boiling point: 236.2 °C at 760 mm Hg  
Melting point: 94°C  
Flash point: 92.4°C

## Section 10: Stability and Reactivity Data

Chemical Stability: Stable under normal temperatures and pressures.  
Conditions of Instability: May decompose on exposure to moist air or water.  
Materials to Avoid: Amines, Strong oxidizing agents, Strong acids, Strong bases.  
Hazardous Decomposition Products: Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide.  
Hazardous Polymerization:  
Hazardous Polymerization: Will not occur .

## Section 11: Toxicological Information

### Route of Exposure

**Skin contact: Causes skin irritation**

**Skin Absorption: Harmful if absorbed through skin.**

Eye contact: Causes eye irritation. Lachrymator.

Inhalation: Harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract

Ingestion: Harmful if swallowed.

Sensitization

Respiratory: May cause allergic respiratory reaction.

### SIGNS AND SYMPTOMS OF EXPOSURE

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

### IRRITATION DATA

Skin

Rabbit

500 mg

Remarks: Severe irritation effect

<b>Section 12: Ecological Information</b>
Not available.

<b>Section 13: Disposal Considerations</b>
<b>Waste Disposal:</b> Waste must be disposed of in accordance with federal, state and local environmental control regulations.

<b>Section 14: Transport Information</b>
Shipping Name: Toxic Solids, Organic, NOS Hazard Class: 6.1 UN Number: 2811 Packing Group: II

<b>Section 15: Other Regulatory Information</b>
According to the National Standard of the People's Republic of China,GB12268 Risk Goods List, this product belongs to class 6.1

<b>Section 16: Other Information</b>
<b>References:</b> Not available. <b>Other Special Considerations:</b> Not available. <b>Created:</b> 10/09/2005 05:35 PM <b>Last Updated:</b> 05/21/2017 12:00 PM

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