



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.30

Section 1 - Product and Company Information

Product Name: Bis(diethylamino)chlorophosphine, 97%
Product Number: 362565
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Table with columns: Substance Name, CAS#, SARA 313, EC no, Annex I Index Number. Row 1: BIS(DIETHYLAMINO)CHLOROPHOSPHINE, 97%, 685-83-6, No.

Formula: C8H20ClN2P
Synonyms:

Section 3 - Hazards Identification

Emergency Overview: Corrosive. Causes burns. Reacts violently with water.

HMIS Rating: Special Hazard(s): Water reactive

NFPA Rating: Special Hazard(s): Water reactive

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Immediate Treatment- Work Site: In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

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 not breathing give artificial respiration. If breathing is difficult, give oxygen.

Eye Exposure: Assure adequate flushing of the eyes by separating the eyelids with fingers.

Section 5 - Fire Fighting Measures

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back.

Flash Point: 214 °F 101 °C

Autoignition Temp: N/A

Extinguishing Media: Suitable: Dry chemical powder, Carbon dioxide. Unsuitable: Do not use water.

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

Specific Hazard(s): Vapor may travel considerable distance to source of ignition and flash back. Emits toxic fumes under fire conditions.

Exposure Hazard(s): Material: Corrosive.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill: Evacuate area. Shut off all sources of ignition.

Procedure(s) of Personal Precaution(s): Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up: Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage Suitable: Keep tightly closed. Store in a cool dry place.

Incompatible Materials: Do not allow contact with water.

Section 8 - Exposure Controls / PPE

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

Personal Protective Equipment Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing, Faceshield (8-inch minimum).

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General Hygiene Measures

Wash thoroughly after handling. Wash contaminated clothing before reuse. Discard contaminated shoes.

Molecular Weight 210.69 AMU

<u>Property</u>	<u>Value</u>	<u>At Temperature or Pressure</u>
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pH	N/A	
BP/BP Range	55 - 57 °C	0.2 mmHg
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	1.002 g/cm ³	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point °F	214 °F	Method: closed cup
Flash Point °C	101 °C	Method: closed cup

Method: closed cup
Method: closed cup

Explosion Limits N/A

Flammability N/A
Autoignition Temp N/A
Refractive Index 1.4895
Solubility N/A

N/A = not available

Section 10 - Stability and Reactivity**Stability****Stable**

Stable.

Reactions to Avoid

Reacts violently with:

Materials to Avoid

Water, Alcohols.

Hazardous Decomposition Products**Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas, Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information**Route of Exposure****Multiple Routes**

Harmful if swallowed, inhaled, or absorbed through skin.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations**Appropriate Method of Disposal of Substance or Preparation**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information**DOT**

Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
UN#: 3265
Class: 8
Packing Group: Packing Group II
Hazard Label: Corrosive
PIH: Not PIH

IATA

Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
IATA UN Number: 3265
Hazard Class: 8
Packing Group: II

Section 15 - Regulatory Information**EU Additional Classification**

Symbol of Danger: C

Indication of Danger

Corrosive.

Risk Statements R: 14 34

Reacts violently with water. Causes burns.

Safety Statements S: 23 26 36/37/39 36 45

Do not breathe vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Classification and Label Text

Indication of Danger

Corrosive.

Risk Statements

Causes burns. Reacts violently with water.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. Wear suitable protective clothing, gloves, and eye/face protection. Do not breathe vapor.

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information**WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. SigmaAldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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