

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: PHOSPHORUS (V) OXIDE
CAS #: 1314-56-3
FORMULA: P₂O₅
SYNONYM: Phosphorus pentoxide, Diphosphorus pentoxide

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	1314-56-3	100	1mg/m ³	1g/m ³

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: HIGHLY TOXIC! Highly toxic by Inhalation, in contact with skin, and if swallowed.
CORROSIVE Causes burns. Reacts violently with water.

PRIMARY ROUTES OF EXPOSURE: Contact with skin and eyes. Inhalation of dust. Ingestion.

EYE CONTACT: Causes severe burns. Possibly permanent damage.

SKIN CONTACT: Causes burns.

INHALATION: : Inhalation of dust is extremely destructive to tissue of mucous membranes and upper respiratory tract. Can lead to spasms, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

INGESTION: May be fatal if swallowed. Extremely destructive to tissue.

CHRONIC HEALTH EFFECTS: Extremely destructive to tissue of mucous membranes and upper respiratory tract, eyes and skin. May be fatal if swallowed. May be fatal if inhaled, swallowed, or absorbed thru skin.

ACUTE HEALTH EFFECTS: Burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Severe burns to eyes, skin, mucous membranes.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: no data

EXPLOSION LIMITS: none

EXTINGUISHING MEDIUM: CO₂, Dry Chemical, Do not use water.

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Emits toxic and corrosive fumes.

UNUSUAL FIRE OR EXPLOSION HAZARDS: None known

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: Evacuate area. Wearing adequate protection to avoid exposure, sweep up trying not to raise dust and place in a well-marked suitable container for disposal. Do not use water.

DISPOSAL: Retain all contaminated soilage for removal and treatment. Dispose of in accordance with all waste disposal regulations.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container . Store in a cool, dry place. Do not allow contact with water.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: white crystals

MOLECULAR WEIGHT: 141.94

MELTING POINT (DEG. C.): 340 deg

BOILING POINT: n/a

VAPOR PRESSURE: 10mmHg

SPECIFIC GRAVITY: no data

SOLUBILITY IN WATER: violent reaction

SECTION 10 Stability and Reactivity

HAZARDOUS POLYMERIZATION: will not occur

CONDITIONS TO AVOID: moisture

INCOMPATIBILITY: Water, Moisture, Sodium, Potassium, Ammonia, Peroxides, Magnesium, Alcohols, Hydrogen fluoride, Metals, Oxidizing agents.

DECOMPOSITION PRODUCTS: Toxic fumes of phosphorus oxides and/or toxic phosphine.

SECTION 11 Toxicological Information

RTECS DATA: TH3945000

MUTAGENIC EFFECTS: no data

TETRATOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Phosphorus Pentoxide, Class 8, UN1807, PG II

SECTION 15 Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (TITLE 313): Title compound not listed

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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