

Section 1. Product and Company Identification

Product Name Phosphorus Pentoxide
CAS Number 1314-56-3

Parchem - fine & specialty chemicals
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EMERGENCY RESPONSE NUMBER
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Section 2. Hazards Identification

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Inhalation (Category 2): H330
Skin corrosion (Category 1A): H314
Serious eye damage (Category 1): H318

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard statements

H314: Causes severe skin burns and eye damage.
H330: Fatal if inhaled.

Precautionary statements

P260: Do not breathe dust/ fume/gas/mist/vapors/spray.
P264: Wash skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P284: Wear respiratory protection.
P301 + P330 + P331: If swallowed, rinse mouth. Do not induce vomiting.
P303 + P361 + P353: If on skin (or hair), remove/take off immediately all contaminated clothing.
Rinse skin with water/ shower
P304 + P340: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for



breathing.

P305 + P351 + P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a poison center or doctor/physician.

P320: Specific treatment is urgent (see supplemental first aid instructions on this label).

P363: Wash contaminated clothing before reuse.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS: Reacts violently with water

Section 3. Composition / Information on Ingredients

Common Name	Phosphorus Pentoxide
Synonym(s)	Phosphoric anhydride, Phosphorus (V) oxide
Formula	P ₂ O ₅
CAS Number	1314-56-3

Section 4. First Aid Measures

Description of first-aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed: No data available

Section 5. Firefighting Measures

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry powder

Special hazards arising from the substance or mixture: no data available



Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.
Further information: The product itself does not burn

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

Conditions for safe storage, including any incompatibilities: Store under argon. Keep container tightly closed in a dry and well-ventilated place. Keep away from water. Never allow product to get in contact with water during storage. Air and moisture sensitive

Section 8. Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands



Body Protection: Complete suit protecting against chemicals, Flame retardant protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance: White crystalline

Odor: No data available

Odor Threshold: No data available

pH: 1.5 at 10 g/l at 20°C (68°F)

Melting point/freezing point: Melting point/range: 340°C (644°F)

Initial boiling point and boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: 13 hPa (10 mmHg) at 238°C (460°F), 1 hPa (1 mmHg) at 384°C (723°F)

Vapor density: 4.90 - (Air = 1.0)

Relative density: 2.3 g/mL at 25°C (77°F)

Water solubility: no data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Other safety information

Bulk density: 300 kg/m³

Relative vapor density: 4.90 - (Air = 1.0)



Section 10. Stability and Reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Reacts violently with water.

Conditions to avoid: Exposure to moisture.

Incompatible materials: Water, Sodium/sodium oxides, Potassium, Ammonia, Peroxides, Magnesium, Alcohols, Metals, Oxidizing agents

Hazardous decomposition products

Other decomposition products: No data available

In the event of fire: see section 5

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity: no data available

LC50 Inhalation: Mouse - 1 h - 271 mg/m³

Remarks: Lungs, Thorax, or Respiration: Chronic pulmonary edema. Other changes.

Blood: Hemorrhage.

Dermal: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity

IARC: No components of this product, present at levels greater than or equal to 0.1%, is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No components of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No components of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.

OSHA: No components of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available



Additional Information

RTECS: TH3945000

Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Section 12. Ecological Information

Toxicity: No data available

Persistence and degradability: No data available

Bio accumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Other adverse effects: May be harmful to aquatic organisms due to the shift of the pH.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US)

UN number: 1807

Class: 8

Packing group: II

Proper shipping name: Phosphorus pentoxide

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN number: 1807

Class: 8

Packing group: II

EMS-No: F-A, S-B

Proper shipping name: Phosphorus Pentoxide

Marine pollutant: No

IATA

UN number: 1807



Class: 8
Packing group: II
Proper shipping name: Phosphorus pentoxide

Section 15. Regulatory Information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right to Know Components

Phosphorus pentoxide (CAS-No. 1314-56-3)

Pennsylvania Right to Know Components

Phosphorus pentoxide (CAS-No. 1314-56-3)

New Jersey Right to Know Components

Phosphorus pentoxide (CAS-No. 1314-56-3)

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm

HMIS Rating

Health: 3

Flammability: 0

Reactivity: 2

NFPA Rating

Health: 4

Flammability: 0

Reactivity: 0

Section 16. Other Information

Disclaimer: 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.

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