

# MSDS- Phosphorus Pentoxide – P<sub>2</sub>O<sub>5</sub>

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## 1. Chemical Product and Company Identification

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Product Name : Phosphorus Pentoxide  
Manufacturer : Sandhya Dyes & Chemicals  
Address : Sandhya Dyes & Chemicals  
311/312, Nand Prem, 142, Nehru Road, Vile Parle (E)  
Mumbai- 400057  
INDIA  
Tel no. 91-22-26104202/26151500/26136732  
Fax no. 91-22-26104201  
Regd. Office  
Regd. Office  
Plot No. 1703, G I D C, Sarigam-396155,  
District Valsad, Gujarat  
Tel No. 91-260-2781049/2780149  
www.sandhyagroup.com  
socpl@vsnl.com

Emergency Contact No. : 91-22-26104202/26151500/26136732

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## 2. Composition

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Hazardous Components	%	OSHA/PEL	ACGIH/TLV
Phosphorus Pentoxide	99.5 %	N/E	N/E
CAS No.1314-56-3			

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## 3. Hazards Identification

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### EMERGENCY OVERVIEW

Corrosive and irritating to the eyes, skin, and mucous membranes

#### Effects of Exposure:

To the best of our knowledge the chemical, physical and toxicological properties of phosphorus pentoxide have not been thoroughly investigated and reported.

#### Acute and Chronic Effects:

**Inhalation:** CORROSIVE. May result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

**Ingestion:** CORROSIVE. Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**Skin:** CORROSIVE. May cause skin burns or irritation depending on the severity of the exposure.

**Eye:** CORROSIVE. Eye contact may result in permanent damage and complete vision loss.

**Carcinogenicity:** No information found.

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## 4. Emergency & First Aid Measures

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**INHALATION:** Remove to fresh air; keep warm and quiet, give oxygen if breathing is difficult and seek medical attention.

**INGESTION:** Seek immediate medical attention.

**SKIN:** Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

**EYE:** Rinse opened eye for several minutes under running water. Then consult a doctor.

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## 5. Fire Fighting Measures

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**Flash Point:** N/E or N/A

**Autoignition Temperature:** N/A

**Explosive Limits: Lower:** N/A

**Upper:** N/A

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**Extinguishing Media:** DO NOT USE WATER. Use suitable extinguishing media for surrounding materials and type of fire.

**Special Fire Fighting Procedures:** Firefighters must wear full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

**Unusual Fire & Explosion Hazard:** Phosphorus (V) oxide may emit toxic fumes if involved in a fire. Reacts violently with water.

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## 6. Accidental Release Measures

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Personal Protection : Avoid Breathing dust-wear, respiratory protection equipment. Do not allow other to enter area.  
Environmental : Notify the environmental agency and local environmental health officer if major spillage occur.  
Major Spillage : Shovel/sweep up in to container for removal. Wash area down with copious amount of water.  
Minor Spillage : Wash area down with copious amount of water.

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## 7. Handling and Storage

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Handling : Avoid contact with skin and eyes, do not breath dust. Do not allow to contaminate clothing.  
Storage :Store in a cool, dry area. Store away from water/moisture. Store in tightly sealed container. Store away from incompatible material. Wash thoroughly after handling.

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## 8. Exposure Controls, Personal Protection

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### EXPOSURE LIMITS:

Hazardous Components	%	OSHA/PEL	ACGIH/TLV
Phosphorus Pentoxide	99.9%	N/E	N/E
CAS No.1314-56-3			

**Respiratory Protection (Specify Type):** NIOSH approved dust-fume-mist cartridge respirator.

**Ventilation:** Handle under dry protective gas under properly operating chemical fume hood designed for hazardous chemicals. General exhaust is recommended.

**Protective Gloves:** Impervious gloves

**Eye Protection:** Safety glasses, tightly sealed goggles, full face protection.

**Other Protective Equipment:** Protective gear suitable to prevent contamination.

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## 9. Physical and Chemical Properties

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<b>Boiling Point:</b> 360 C (sublimes)	<b>Melting Point:</b> 580-585 oC
<b>Vapor Density:</b> N/A	<b>Specific Gravity:</b> 2.38 g/cc
<b>Vapor Pressure:</b> N/A	<b>Solubility in H<sub>2</sub>O:</b> Reacts violently ( Decomposes in water )
<b>Appearance and Odor:</b> White powder, mild odor.	<b>% Volatile:</b> N/E or N/A

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## 10. Stability and Reactivity

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**Stability** : Stable  
**Conditions to Avoid** : Reacts violently with water.  
**Incompatibility (Materials to Avoid)** : Acids, bases, water/moisture, alcohols, alkali metals, magnesium, ammonia.  
**Hazardous Decomposition Products** : Metal oxide fume.  
**Hazardous Polymerization** : Will not occur.

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## 11. Toxicological Information

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Skin & eyes : Contact with skin or eyes will cause severe thermal & caustic burns  
LD50(Skin) : Not Available  
Ingest : Ingestion will cause severe mouth burns and if swallowed extensive damage to oesophages.  
LD50 ingest : Not Available  
Carcinogenicity : Not considered as carcinogen  
Mutagenicity : Not considered as mutagen  
Reproductive Effect : None identified

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## 12. Ecological Information

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High Concentration will injure aquatic life due to effect of low pH. Low Concentration may form soluble phosphates which may Act as plant nutrients.

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## 13. Disposal Considerations

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Disposal Method : Dilute in a large excess of water and carefully neutralize with soda ash, then wash drain with copious Amount of water.  
Contaminated Packaging : Very carefully wash out container with water.

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## 14. Transport Information

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**PROPER SHIPPING NAME** : Phosphorus Pentoxide  
**HAZARD CLASS** : 8  
**IDENTIFICATION NUMBER** : UN 1807  
**SHIPPING LABEL** : CORROSIVE  
**Packing Group** : II  
**EMS** : F-A, S-B  
**Marine Pollutant** : No

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## 15. Regulatory Information

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## 16. Other Information

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**This information is based on our present state of knowledge. It should not therefore be constructed as guaranteeing specific properties of this product or their suitability for a particular application.**