

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 4.0 Revision Date 12.03.2010

Print Date 18.06.2010

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Phosphorus pentoxide

Product Number : 04113

Brand : Sigma-Aldrich

Company : Sigma-Aldrich Brasil Ltda.  
Av. das Nações Unidas, 23.043  
04795-100 SÃO PAULO - SP  
BRAZIL

Telephone : +551137323100

Fax : +551155229895

Emergency Phone # :

### 2. HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Skin corrosion (Category 1A)

According to European Directive 67/548/EEC as amended.

Causes severe burns.

#### Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P280

P305 + P351 + P338

Wear protective gloves/protective clothing/eye protection/face protection.

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.

Hazard symbol(s)

C

Corrosive

R-phrases(s)

R35

Causes severe burns.

S-phrases(s)

S22

S26

Do not breathe dust.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Other hazards** - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Phosphoric anhydride  
Phosphorus(V) oxide

Formula :  $O_5P_2$

Molecular Weight : 141,94 g/mol

CAS-No.	EC-No.	Index-No.	Classification	Concentration
<b>Phosphorus pentoxide</b>				
1314-56-3	215-236-1	015-010-00-0	Skin Corr. 1A; H314 C, R35	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

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#### 4. FIRST AID MEASURES

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

##### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

##### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### If swallowed

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

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#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

##### Further information

The product itself does not burn.

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#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

##### Environmental precautions

Do not let product enter drains.

##### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

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#### 7. HANDLING AND STORAGE

##### Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

##### Conditions for safe storage

Store under argon. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep away from water.

Air and moisture sensitive.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

#### 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).

#### Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

#### Eye protection

Face shield and safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	crystalline
Colour	white

### Safety data

pH	1,5 at 10 g/l at 20 °C
Melting point	340 °C
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	13 hPa at 238 °C 1 hPa at 384 °C
Density	2,3 g/mL at 25 °C
Water solubility	no data available
Relative vapour density	4,90 - (Air = 1.0)

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Reacts violently with water.

**Conditions to avoid**

no data available

**Materials to avoid**

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

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine

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**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LC50 Inhalation - mouse - 1 h - 271 mg/m3

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

**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 component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**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

**Potential health effects****Inhalation**

May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion**

May be harmful if swallowed. Causes severe burns.

**Skin**

May be harmful if absorbed through skin. Causes severe skin burns.

**Eyes**

Causes severe eye burns.

**Additional Information**

RTECS: TH3945000

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**12. ECOLOGICAL INFORMATION****Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

May be harmful to aquatic organisms due to the shift of the pH.

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**13. DISPOSAL CONSIDERATIONS****Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION****ADR/RID**

UN-Number: 1807 Class: 8 Packing group: II

Proper shipping name: PHOSPHORUS PENTOXIDE

**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

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**15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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**16. OTHER INFORMATION****Text of H-code(s) and R-phrase(s) mentioned in Section 3**

H314	Causes severe skin burns and eye damage.
Skin Corr.	Skin corrosion
C	Corrosive
R35	Causes severe burns.

**Further information**

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