

**Section 1. Identification****1.1 Product Identifier**

CHE2864

Product Name

PHOSPHOROUS PENTOXIDE pure 500g.

CAS Number

1314-56-3

REACH Registration No

A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula

 $P_2O_5 = 141.94$ **1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material

Chemical for industrial and laboratory use. Not suitable for domestic use.

**1.3 Supplier**

Scientific Laboratory Supplies

Unit 6, Foresters Avenue  
Fairham Business Park  
Fairham  
Nottingham  
NG11 2AF  
UNITED KINGDOM

Phone

0115 9821111

Fax

0115 9825275

Email

sales@scientific-labs.com

**1.4 Emergency Telephone**(08:00-17:00) 0115 9821111  
(24hr) 112  
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Skin corrosion/irritation, category 1A

H314: Causes severe skin burns and eye damage.

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word

Danger

Hazard Pictograms



Hazard Statements

Causes severe skin burns and eye damage.

Precautionary Statements    Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

## Section 3. Composition

### 3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Phosphorous pentoxide	1314-56-3	215-236-1		>98%	Skin Corr. 1A

## Section 4. First Aid

### 4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water until MEDICAL ATTENTION has been obtained.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. Unless contact has been slight OBTAIN MEDICAL ATTENTION
Inhalation	Remove from exposure. Keep warm and at rest. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.
Ingestion	If conscious give plenty of water to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

### 4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	If water is used it should be in a large excess to minimise exothermic reactions.

### 5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
---------	---

### 5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
-------------------------	--

## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Avoid breathing dust-wear respiratory protective equipment. Do not allow other people to enter area.
---------------------	--

### 6.2 Environmental precautions

Environmental	Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
---------------	--

### 6.3 Methods and material for containment and cleaning up

Major Spillage	Shovel/sweep up into container for removal Wash area down with copious amounts of water.
Minor Spillage	Wash area down with copious amounts of water.

### 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Protect against moisture to prevent decomposition and corrosion.

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits		
			Long Term (8hr TWA)	Short Term 15min period	
Phosphorous pentoxide	1314-56-3	>98%	-	1.0 mg/m-3	-

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

### 8.2 Exposure controls

Respiratory Protection	If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.
Hand Protection	Wear gloves.
Eye Protection	Use chemical full face shield.
Skin Protection	Wear PVC oversuit.
Special Hazards	No special precautions required.

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance	White hygroscopic powder.
Odour	No specific odour.
pH	3.6 @ 20 °C (0.1 g/L)
Boiling Point	Not available
Melting Point	420 °C
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	0.2 hPa @ 250 °C
Relative Density	2.300
Water Solubility	Reacts violently with water.

### 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

10.1 Reactivity No data available.

10.2 Chemical Stability Stable under normal conditions

<b>10.3</b>	Possibility of hazardous reactions	No data available.
<b>10.4</b>	Conditions to Avoid	Exclude water completely, extremely hygroscopic.
<b>10.5</b>	Incompatible Materials	Water. Perchloric acid. Reacts vigorously and exothermically with lower molecular weight alcohols.
<b>10.6</b>	Hazardous Decomposition Products	May produce hazardous fumes if involved in a fire.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	Contact with the solid or solution will cause severe burns.
Skin	Direct contact with moisture on the skin causes severe thermal and caustic burns.
LD50 Skin	Not available
Ingestion	Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus.
LD50 Oral	Not available
Inhalation	Inhalation of dust will produce severe irritation of the eyes, nose, throat and respiratory tract. Prolonged exposure to dust or fume concentrations above the occupational exposure limits will seriously damage the membranes lining the nose, throat and upper respiratory tract.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

## Section 12. Ecological

<b>12.1</b>	Toxicity	High concentrations will injure aquatic life due to the effect of low pH. Low concentrations may form soluble phosphates which may act as plant nutrients.
	LC50 Algal	66.5 mg/L Algae (72 hours)
	LC50 Crustacea	>100 mg/L Daphnia magna (48 hours)
	LC50 Fish	>100 mg/L Fish (96 hours)
<b>12.2</b>	Persistence and degradability	No data available.
<b>12.3</b>	Bioaccumulative potential	No data available.
<b>12.4</b>	Mobility in soil	No data available.
<b>12.5</b>	Results of PBT & vPvB assessment	Assessment not required.
<b>12.6</b>	Other adverse effects	None known at present.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Disposal Methods	Dilute in a large excess of water and carefully neutralise with soda ash, then wash to drain with copious amounts of water. Larger quantities should be sent for disposal by an authorised waste disposer.
Contaminated Packaging	Very carefully wash out containers with water. Use a licensed waste disposer.

## Section 14. Transport Information

<b>14.1 UN Number</b>	1807
<b>14.2 Proper Shipping Name</b>	Phosphorous pentoxide
<b>14.3 Transport classes</b>	
UN classification	8
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	80
Tunnel Restriction Code	E
<b>14.4 Packing Group</b>	II
<b>14.5 Environment hazards</b>	See section 12.
<b>14.6 Special precautions for user</b>	No special precautions required.
<b>14.7 Transport in bulk</b>	Not transported in bulk.



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Skin corrosion/irritation, category 1A

Signal word Danger

Hazard Pictograms



Hazard Statements H314  
Causes severe skin burns and eye damage.

Precautionary Statements P280, P264, P363, P301+P330+P331, P303+P361+P353, P305+P351+P338  
Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

Revision number: 1.2 (Supersedes revision 1.1)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 16 September 2024

Copyright: 2024 Scientific Laboratory Supplies