

Camlab Limited – Material Safety Data Sheet

1. Identification


Product Code CC/0495-DH

Product Name **ORTHOPHOSPHORIC ACID 90% w/w pure**

Molecular Formula **H₃PO₄ =98.00**

CAS Number **7664-38-2**

Supplier: **CAMLAB LIMITED**
Norman Way Industrial Estate
Over
Cambridge
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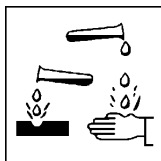
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(Have this document to hand)

2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Orthophosphoric acid	7664-38-2	231-633-2	90.0%	C : R34	WEL

3. Hazards Identification



Causes burns.

4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.

Skin Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.

Inhalation Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion If conscious give plenty of water to drink. Do not induce vomiting. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. May evolve toxic fumes if involved in a fire.

Extinguishing Media Water spray, foam, dry powder or carbon dioxide.

Unsuitable Media Do not use water jet.

6. Accidental Release Measures

Personal Protection	Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.
Environmental	Keep material out of sewers, storm drains, surface waters and soil. Keep non-neutralised material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Neutralise spill with soda ash, lime, calcium carbonate or sodium bicarbonate. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Protect from direct sunlight.

8.1 Workplace Exposure Limits

Workplace Exposure Limits	Long Term (8hr TWA):	-	ppm	1.000	mg m-3
	Short Term (15min Period):	-	ppm	2.000	mg m-3

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.
Hands	Use PVC gauntlets.
Eyes	Use chemical splash proof glasses or goggles.
Skin	If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Colourless to pale coloured viscous liquid.
Odour	Odourless.
pH	2 (1% solution)
Boiling point	171.0 °C
Melting point	28.0 °C
Flash point	Not available
Upper Flammable Limit	Not available
Lower Flammable Limit	Not available
Auto Ignition	Not available
Explosive properties	No.
Oxidising Properties	No.
Vapour Pressure	2.18 mm Hg @ 20 C
Relative Density	1.7520 °C
Water Solubility	Completely soluble in water.

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	No specific conditions.
Materials to Avoid	Alkalis. Reacts with most metals to produce extremely flammable hydrogen gas. Reacts with sulphide,phosphide,cyanide,carbide and silicides producing very toxic gases.
Hazardous Decomposition Products	May produce hazardous fumes if involved in a fire. May liberate phosphorous oxide.

11. Toxicological Information

Eyes	The liquid is be extremely irritating to eyes and can cause chemical eye burns. Damage can range from severe irritation and corneal scarring to permanent blindness.
Skin	The liquid will cause burns. Repeated exposure may cause dermatitis.
LD50 Skin	Not available
Ingest	Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus. Moderately toxic by ingestion.
LD50 Ingest	Rat 1530mg/Kg
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will produce irritation of the eyes, nose, throat and respiratory tract. High concentrations of vapour will seriously damage the membranes lining the nose, throat and upper respiratory tract.
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.
Other Information	1ppm of phosphoric acid mist is irritating.

12. Ecological

Acidic, nutrient for undesirable algae. While acidity may be reduced by natural water hardness, the phosphate may persist indefinitely.

13. Disposal Considerations

Disposal Methods	Neutralised acid slurry can be buried in an approved land fill site. Never dispose of into water courses or sewerage systems.
Contaminated Packaging	Use a licensed waste disposer. Carefully neutralise with a weak sodium hydroxide solution then wash out thoroughly with water.

14. Transport Information

Proper Shipping Name	Phosphoric Acid, Solution
UN Number	1805
UN Classification	8 Corrosive
Subsidiary Risk	None
Flash Point	Not available
Packing Group	III
Transport Category	3
Marine pollutant	No
ADR Hazard ID	80



15. Regulatory Information

Labelling	Corrosive.
Classification	

Label Symbols	C	
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Risk & safety Phrases	Causes burns. Keep locked up and out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label).
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EEC Number	231-633-2
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16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

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