

SAFETY DATA SHEET

ORTHOPHOSPHORIC ACID 85% AR

1. Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation:

Catalogue no. : KA371

Product name : Orthophosphoric acid 85% AR

1.2 Use of the substance/preparation: For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm: Elago Enterprises Pty Ltd, 5 The Cloisters, Cherrybrook, N.S.W. 2126, Australia

Tel no. (61) 2 98998169

Fax no. (61) 2 98997976

1.4 Emergency telephone: (61) 2 98998169 (9:00am - 5:00 pm) [Office hours]

2. Identification of dangers

2.1 Classification of the substance.

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Corrosive to Metals, Category 1: May be corrosive to metals.

Skin corrosive, Category 1A: Causes severe skin burns and eye damage.

2.2 Label elements.

Hazard pictograms



Signal words : Danger.

Hazard statements (H) :

H290 : May be corrosive to metals.

H314 : Causes severe skin burns and eye damage.

Precautionary statements (P) :

P260 : Do not breathe dust/fume/gas/mist/vapours/spray.

P264 : Wash thoroughly after handling.

P280 : Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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/doctor.

P321 : Specific treatment (show this label).

2.3 Other hazards.

None known.

3. Composition/information on ingredients

Chemical nature: Aqueous solution.

3.1 Substance / Preparation.

Not applicable.

3.2 Mixture.

Orthophosphoric acid

Formular: H_3PO_4

CAS No : 7664-38-2

Molecular weight : 98.00

Content: $\geq 50\%$ - $\leq 85\%$

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Water

CAS No 7732-18-5

Content: >= 15% - <= 50%

Contains no other components or impurities which will influence the classification of the product.

4. First-aid measures

4.1 Description of first aid measures.

Inhaling: Take the person out into the fresh air. If unconscious, place them in a suitable position and seek medical assistance.
Skin contact: Wash with plenty of water. Remove contaminated clothing.
Eyes: Wash with plenty of water, keeping eyelids open and seek medical assistance.
Ingestion: Never induce vomiting. Seek immediate medical assistance.

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

Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

5. Fire-fighting measures

5.1 Suitable extinguishing media.

Recommended extinguishing methods: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

5.2 Special hazards arising from the substance.

Special risks: Under fire conditions, toxic fumes (carbon oxides) may present.

5.3 Advice for firefighters.

Do not enter fire area without proper protective equipment, including respiratory protection.
Fire protection equipment: According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

6.3 Methods and material for containment and cleaning up.

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Store away from other materials. Collect spillage.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

7. Handling and storage

7.1 Precautions for safe handling.

Follow legislation on occupational health and safety. Keep the product in containers made of a material identical to the original. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Well sealed containers. Away from sources of ignition and heat. No metal or containers.

7.3 Specific end use(s).

None.

8. Exposure controls/personal protection

8.1 Control parameters.

The product contain substances with Professional Exposure Environmental Limit Values.

Phosphoric acid : STEL: 3 mg/m³ (Worksafe Aust.)

A time weighted average (TWA) has been established for Phosphoric acid (Safe Work Australia) of 1 mg/m³. The corresponding STEL level is 3 mg/m³. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.

The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Personal protection : Avoid all unnecessary exposure.

Respiratory protection : Wear approved mask.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Others : When using, do not eat, drink or smoke.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties.

Appearance:	Liquid.
Colour:	Clear colourless liquid.
Odour:	Odourless.
Odour threshold:	No data available.
pH value:	~1.5
Melting Point:	21 °C
Boiling Point:	158 °C
Flash point:	No data available.
Flammability (solid, gas) :	No data available.
Evaporation rate :	No data available.
Vapour pressure:	No data available.
Vapour density :	No data available.
Lower Explosive Limit:	No data available.
Upper Explosive Limit:	No data available.
Solubility:	No data available.
Density:	No data available.
Relative density:	No data available.
Partition coefficient (n-octanol/water):	-0.77 (log Pow)
Decomposition temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

9.2 Other information.

None.

10. Stability and reactivity

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under room temperature.

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidizing agents, aluminium, and iron/iron-containing compounds.

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

11. Toxicological information

11.1 Information on toxicological effects.

Mixture

Acute toxicity.	LD50 oral rat : 1530 mg/kg LD50 dermal rabbit : 2740 mg/kg
Inhalation:	Based on available data, the classification criteria are not met.
Dermal:	Causes severe skin burns and eye damage.
Ingestion:	Based on available data, the classification criteria are not met.
Corrosion:	Based on available data, the classification criteria are not met.
Irritation:	Based on available data, the classification criteria are not met.
Sensitization:	Based on available data, the classification criteria are not met.
Mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Toxic for reproduction:	Based on available data, the classification criteria are not met.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

12. Ecological information

Mixture

12.1 Toxicity.

Toxicity to fish.
LC50 <i>Gambusia affinis</i> (Mosquito fish) : 138 mg/l; 96 h
Toxicity to Aquatic invertebrates.
EC50 <i>Daphnia magna</i> : > 100 mg/l; 48 h

12.2 Persistence and Degradability.

Biodegradable.

12.3 Bioaccumulative potential.

Partition coefficient: n-octanol/water log Pow: -0.77

12.4 Mobility in soil

Not established.

12.5 Results of PBT and vPvB assessment.

The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

13. Disposal considerations

13.1 Waste treatment methods.

Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

14. Transport information

14.1 UN number.

UN No: UN1805

14.2 UN proper shipping name.

ADR: UN 1805, PHOSPHORIC ACID, SOLUTION, 8, PG III, (E)
IMDG: UN 1805, PHOSPHORIC ACID, SOLUTION, 8, PG III
ICAO: UN 1805, PHOSPHORIC ACID, SOLUTION, 8, PG III

14.3 Transport hazard class(es).

Class(es): 8

14.4 Packing group.

Packing group: III

14.5 Environmental hazards.

Marine pollutant: No

14.6 Special precautions for user.

Labels: 8

Hazard number: 80

ADR LQ: 5 L

IMDG LQ: 5 L

ICAO LQ: 1 L

Provisions concerning carriage in bulk ADR:

Not authorized carriage in bulk in accordance with ADR.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-A,S-B
Proceed in accordance with point 6.
IMDG Code segregation group: 1 Acids
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.
The product is not transported in bulk.

15. Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance.
Ensure all national/local regulations are observed.
The product is not affected by REACH Restrictions - Annex XVII
The product is not affected by REACH Authorisation - Annex XIV
- 15.2 Chemical safety assessment.
Not Scheduled.
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16. Other Information

Abbreviations and acronyms :

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
EC50: Effective concentration, 50%
IC50: Inhibitory Concentration, 50%
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Code for Dangerous Goods.
PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative.

Sources of key data used.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Review number and date.

v. 1.0

Date published.

3-Nov-2017

Further information.

None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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