



Infosafe No™	1CH4S	Issue Date : August 2019	RE-ISSUED by CHEMSUPP
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Product Name : **PHOSPHORIC ACID 25 - 85%**

Classified as hazardous

**1. Identification**

**GHS Product Identifier** PHOSPHORIC ACID 25 - 85%

**Company Name** CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

**Address** 38 - 50 Bedford Street GILLMAN  
SA 5013 Australia

**Telephone/Fax Number** Tel: (08) 8440-2000

**Emergency phone number** CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

**Recommended use of the chemical and restrictions on use** Fertilizer; manufacturer of phosphate fertilizers and salts, polyphosphates, soil stabiliser, detergents, pharmaceutical chemicals, activated carbon, animal feed, ceramics, food additive, food processing, soap, rust inhibitors, wax and rubber latex; also used in electropolishing, engraving and photoengraving, printing, opal glasses, cotton dyeing, metal cleaning, sugar refining and water treatment. Petrol additive, soft drinks, and laboratory reagent.

Other Names	Name	Product Code
	PHOSPHORIC ACID 85% AR	PA000
	PHOSPHORIC ACID 85% LR	PL000
	PHOSPHORIC ACID 85% FCC	PP000
	PHOSPHORIC ACID 85% TG	PT000
	PHOSPHORIC ACID 25% w/w AR	PA384
	Orthophosphoric Acid	

**Other Information**

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

**2. Hazard Identification**

**GHS classification of the substance/mixture** Corrosive to Metals: Category 1  
Skin Corrosion/Irritation: Category 1B  
Acute Toxicity - Inhalation: Category 4

**Signal Word (s)** DANGER

**Hazard Statement (s)** H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H332 Harmful if inhaled.

**Pictogram (s)** Corrosion, Exclamation mark

**Precautionary statement – Prevention**

P234 Keep only in original container.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement – Response**

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P363 Wash contaminated clothing before reuse.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



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<b>Precautionary statement – Storage</b>	P310 Immediately call a POISON CENTER or doctor/physician. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Precautionary statement – Disposal</b>	P390 Absorb spillage to prevent material damage. P405 Store locked up. P406 Store in corrosive resistant/container with a resistant inner liner. P501 Dispose of contents/container to an approved waste disposal plant.

**3. Composition/information on ingredients**

Chemical	Liquid				
Characterization					
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Phosphoric acid	7664-38-2	25-85 %		
	Water to make a total of 100%	7732-18-5	-		

**4. First-aid measures**

<b>Inhalation</b>	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist. DO NOT INDUCE VOMITING. Wash out mouth with water, afterwards drink plenty of water. Seek immediate medical attention.
<b>Skin</b>	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
<b>Eye contact</b>	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.
<b>First Aid Facilities</b>	Maintain eyewash fountain and safety shower in work area.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
<b>Other Information</b>	For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

**5. Fire-fighting measures**

<b>Hazards from Combustion Products</b>	Phosphoric acid forms toxic phosphorous oxide fumes on combustion.
<b>Specific Methods</b>	Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media. Small fire: Use dry chemical, CO2 or water spray. Large fire: Use water spray, fog or foam - Do NOT use water jets. If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.
<b>Specific hazards arising from the chemical</b>	Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated.
<b>Hazchem Code</b>	2R
<b>Precautions in connection with Fire</b>	Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

**6. Accidental release measures**

<b>Personal Precautions</b>	Avoid inhalation and ingestion. Avoid contact with skin, eyes and clothing. Evacuate the area of all non-essential personnel.
<b>Personal Protection</b>	Wear protective clothing specified for normal operations (see Section 8)
<b>Clean-up Methods - Small Spillages</b>	Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.



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**Clean-up Methods -** Seek expert advice on handling and disposal.**Large Spillages****Environmental**

Avoid release to the environment.

**Precautions****7. Handling and storage**

**Precautions for Safe Handling** Avoid prolonged or repeated contact with skin, eyes and clothing . Wash hands and face thoroughly after working with material. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles.

**Conditions for safe storage, including any incompatibilities** Store in well ventilated area. Store away from foodstuffs. Keep containers securely sealed and protected against physical damage. Store away from sources of heat or ignition. Keep dry and protect from direct sunlight. Protect from freezing.

**Corrosiveness** Extremely corrosive in presence of copper, brass and stainless steel. Highly corrosive in presence of aluminium. Mild corrosive effect on bronze. Corrosive to ferrous metals and alloys. Non-corrosive in presence of glass.

**Storage Regulations** Refer Australian Standard AS 3780 - 1994 'The storage and handling of corrosive substances'.

**8. Exposure controls/personal protection**

Occupational exposure limit values	<u>Name</u>	STEL		TWA		<u>Footnote</u>
		<u>mg/m3</u>	<u>ppm</u>	<u>mg/m3</u>	<u>ppm</u>	
	Phosphoric acid	3		1		
<b>Other Exposure Information</b>	<p>These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.</p> <p>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.</p>					
<b>Appropriate engineering controls</b>	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. These methods should be used in preference to personal protective equipment.					
<b>Respiratory Protection</b>	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.					
<b>Eye Protection</b>	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.					
<b>Hand Protection</b>	Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments.					
<b>Personal Protective Equipment</b>	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.					
<b>Footwear</b>	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.					
<b>Body Protection</b>	Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.					



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**Hygiene Measures** Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**9. Physical and chemical properties**

<b>Form</b>	Liquid
<b>Appearance</b>	Clear, colourless, syrupy liquid.
<b>Odour</b>	Odourless.
<b>Melting Point</b>	21 °C (85% phosphoric acid)
<b>Boiling Point</b>	158 °C (85% phosphoric acid)
<b>Solubility in Water</b>	Soluble in water.
<b>Specific Gravity</b>	1.685 (85% phosphoric acid)
<b>pH</b>	1 (100 g/l, H <sub>2</sub> O, 20 °C)
<b>Vapour Pressure</b>	2.2 hPa (85% phosphoric acid)
<b>Vapour Density (Air=1)</b>	3.4 (85% phosphoric acid)
<b>Flammability</b>	Non combustible material.
<b>Molecular Weight</b>	98.0

**10. Stability and reactivity**

**Chemical Stability** Stable under normal use conditons.

**Conditions to Avoid** Incompatibles.

**Incompatible Materials** Acetulides, alcohols, aldehydes, amides, amines, ammonia or bleach, azo-compounds, carbides, carbamates, caustics, chlorides, combustible materials, cyanides, esters, epoxides, fluorides, glycols, halogenated organics, ketones, mercaptins, nitromethane, organic peroxides, organophosphates, phenols and cresols, phosphides, silicides, sodium tetrahydroborate, strong caustics, stainless steel, sulfides and unsaturated halides.

**Possibility of hazardous reactions** Phosphoric acid decomposes under formation of toxic fumes on contact with alcohols, cyanides, ketones, phenols, esters, sulfides, mercaptans and halogenated organic compounds. Liberates explosive hydrogen gas when reacting with chlorides and stainless steel. Exothermic reactions with aldehydes, amines, amides, alcohols and glycols, azo-compounds, carbamates, esters, caustics, phenols and cresols, organophosphates, epoxides, explosives, combustible materials, unsaturated halids, sodium tetrahydroborate, organic peroxides.

**Hazardous Polymerization** Will not occur.

**11. Toxicological Information**

**Acute Toxicity - Oral** LD50 (rat): 1,530 mg/kg (anhydrous) (IUCLID)

**Acute Toxicity - Dermal** LD50 (rabbit): 2,740 mg/kg (anhydrous)(IUCLID)

**Ingestion** Burns to the mouth, throat and stomach. Symptoms include sour acrid taste, coughing, difficult breathing and swallowing, conjunctivitis, severe gastrointestinal irritation, nausea, vomiting, bloody diarrhoea, severe abdominal pains, extreme thirst, convulsions.

**Inhalation** Harmful if inhaled. Vapour or mist can cause irritation of the nose, throat, and upper respiratory tract. Severe exposures can lead to a chemical pneumonitis.

**Skin** Corrosive. Concentrated acid solutions can cause redness, pain, itching, scaling, occasional blistering, and severe skin burns.

**Eye** Mists may cause eye irritation. Symptoms include of redness, pain, tearing, eyelid spasms, blurred vision, chemical conjunctivitis, burns and permanent eye damage. risk of blindness!

**Carcinogenicity** No evidence of carcinogenic properties.

**Chronic Effects** Dermatitis may occur from prolonged or repeated skin contact. Prolonged or over exposure to phosphoric acid can increase fluid levels in the lungs (pulmonary oedema). May cause clammy skin and dermatitis, weak and rapid pulse, shallow respiration, very little urine, bronchitis, shortness of breath. Severe exposure to phosphoric acid can lead to shock, circulatory collapse and death.

**Mutagenicity** No evidence of mutagenic effects.

**12. Ecological information**



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<b>Ecotoxicity</b>	Quantitative data on the ecological effect of this product are not available.
<b>Bioaccumulative Potential</b>	Phosphate (formed when phosphoric acid is dissolved) is unlikely to bioaccumulate in most aquatic species.
<b>Information on Ecological Effects</b>	Excessive amounts of phosphoric acid can affect the pH shift leading to a potential risk to aquatic organisms.

**13. Disposal considerations**

<b>Disposal Considerations</b>	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.
<b>Container Disposal</b>	Dispose container as hazardous waste.

**14. Transport information**

<b>Transport Information</b>	Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following: Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.
<b>U.N. Number</b>	1805
<b>UN proper shipping name</b>	PHOSPHORIC ACID
<b>Transport hazard class(es)</b>	8
<b>Hazchem Code</b>	2R
<b>Packaging Method</b>	3.8.8RT8
<b>Packing Group</b>	III
<b>EPG Number</b>	8A1
<b>IERG Number</b>	37

**15. Regulatory information**

<b>Regulatory Information</b>	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
<b>Poisons Schedule</b>	S6

**16. Other Information**

<b>Literature References</b>	'Standard for the Uniform Scheduling of Medicines and Poisons.', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.' Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
<b>Contact Person/Point</b>	Paul McCarthy Ph. (08) 8440 2000 <b>DISCLAIMER STATEMENT:</b> All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
<b>Empirical Formula &amp; Structural Formula</b>	H3 P O4 ...End Of MSDS...



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# Safety Data Sheet

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