



Infosafe No™	1CH4S	Issue Date : September 2014	RE-ISSUED by CHEMSUPP
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Product Name : **PHOSPHORIC ACID 85%**

Classified as hazardous

1. Identification

GHS Product Identifier	PHOSPHORIC ACID 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 Fax: (08) 8440-2001	
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	EMERGENCY CONTACT NUMBER: +61 08 8440 2000 Business hours: 8:30am to 5:00pm, Monday to Friday.	

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 1A
Signal Word (s)	DANGER
Hazard Statement (s)	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.
Pictogram (s)	Corrosion



Precautionary statement – Prevention	P234 Keep only in original container. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. 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. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 or doctor/physician.



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Precautionary statement – Storage P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P406 Store in corrosive resistant/container with a resistant inner liner.

3. Composition/information on ingredients

Chemical Characterization	Liquid				
Ingredients	Name	CAS	Proportion	Hazard Symbol	Risk Phrase
	Phosphoric acid	7664-38-2	85 %	C	R34
	Water to make a total of 100%	7732-18-5	-		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
Ingestion	DO NOT INDUCE VOMITING. Wash out mouth with water, afterwards drink plenty of water. Seek immediate medical attention.
Skin	Remove contaminated clothing and wash before re-use. Wash affected areas with copious quantities of water immediately. Seek immediate medical advice.
Eye contact	Seek immediate medical assistance. Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically as for strong acids. Consult Poisons Information Centre.
Other Information	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

Hazards from Combustion Products	Phosphoric acid forms toxic phosphorous oxide fumes on combustion.
Specific Methods	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.
Specific hazards arising from the chemical	Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated.
Hazchem Code	2R
Precautions in connection with Fire	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

Personal Precautions	Avoid inhalation and ingestion. Avoid contact with skin, eyes and clothing. Evacuate the area of all non-essential personnel.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	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.
Clean-up Methods - Large Spillages	Seek expert advice on handling and disposal.
Environmental Precautions	Avoid release to the environment.

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
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Conditions for safe storage, including any incompatibilities possible. Keep away from incompatibles. 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	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Phosphoric acid	3		1		
Other Exposure Information	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.					
Appropriate engineering controls	Provide sufficient ventilation to ensure that the working environment is below the TWA (time weighted average). 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.					
Respiratory Protection	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.					
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.					
Hand Protection	Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: rubber or plastic gloves.					
Personal Protective Equipment	Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.					
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.					
Body Protection	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.					
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

Form	Liquid
Appearance	Clear, colourless, syrupy liquid.
Odour	Odourless.
Melting Point	21 °C
Boiling Point	158 °C
Solubility in Water	Soluble in water.
Specific Gravity	1.685



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pH	1 (100 g/l, H ₂ O, 20 °C)
Vapour Pressure	2.2 hPa
Vapour Density (Air=1)	3.4 (pure)
Flammability	Non combustible material.
Molecular Weight	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, mercaptans, 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** Harmful if swallowed and absorbed through membranes. 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** Harmful if absorbed through skin. Corrosive. Concentrated acid solutions can cause redness, pain, itching, scaling, occasional blistering, and severe skin burns.**Eye** Harmful if contact the eyes. 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****Ecotoxicity** Quantitative data on the ecological effect of this product are not available.**Bioaccumulative Potential** Phosphate (formed when phosphoric acid is dissolved) is unlikely to bioaccumulate in most aquatic species.**Information on Ecological Effects** Excessive amounts of phosphoric acid can affect the pH shift leading to a potential risk to aquatic organisms.**13. Disposal considerations****Disposal Considerations** Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.**Container Disposal** Dispose container as hazardous waste.



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14. Transport information

Transport Information	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.
U.N. Number	1805
UN proper shipping name	PHOSPHORIC ACID
Transport hazard class(es)	8
Hazchem Code	2R
Packaging Method	3.8.8RT8
Packing Group	III
EPG Number	8A1
IERG Number	37

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS).
Poisons Schedule	S6

16. Other Information

Date of preparation or last revision of SDS September 2014.

Literature References

'Standard for the Uniform Scheduling of Medicines and Poisons No. 4', Commonwealth of Australia, June 2013.

Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.

'Labelling of Hazardous Workplace Chemicals, Code of Practice' Safe Work Australia.

Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.

Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]'.

Safe Work Australia, 'Hazardous Substances Information System, 2005'.

Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.

Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]'.

Contact Person/Point Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**

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Empirical Formula & Structural Formula H3 P O4

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