Infosafe No™	1CHQ9	Issue Date : March 2019	RE-ISSUED by CHEMSUPP

Product Name : **METAPHOSPHORIC ACID**

Classified as hazardous

1. Identification

GHS Product Identifier	METAPHOSPHORIC ACID
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
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
Recommended use of the chemical and restrictions on use	Phosphorylating agent, dehydrating agent, dental cements, reagent for proteins and glucose and laboratory reagent.

Other Names

Name	Product Code
METAPHOSPHORIC ACID LR	ML075
Phosphoric acid, meta-	
Phosphoric acid, glacial	

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	Skin Corrosion/Irritation: Category 1A Eye Damage/Irritation: Category 1 Acute Toxicity - Oral: Category 4
Signal Word (s)	DANGER
Hazard Statement (s)	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage.
Pictogram (s)	Corrosion, Exclamation mark





Precautionary statement – Prevention	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement – Response	P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P363 Wash contaminated clothing before reuse. 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. 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.
Precautionary statement – Storage	P405 Store locked up.

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Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Chemical Characterization	Solid
Information on Composition	Stabilised with NaP03.

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
Metaphosphoric acid	37267-86-0	60 %		
Sodium hexametaphosphate	68915-31-1	40 %		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. If breathing is difficult, give oxygen. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. Give water to drink. DO NOT INDUCE VOMITING. Seek medical advice.
Skin	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.
Eye contact	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
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	May emit toxic fumes in fire (phosphoric oxides).
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 dry chemical, water spray, fog or foam - Do NOT use water jets. Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.
Hazchem Code	2X
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 dust formation and avoid breathing dust. Avoid inhalation, 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	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

7. Handling and storage

Precautions for Safe Handling	Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin, eyes and clothing . Use in well ventilated areas away from all ignition sources. In case of insufficient ventilation, wear suitable respiratory equipment. Wash hands and face thoroughly after working with material.
Conditions for safe storage, including any incompatabilities	Keep container tightly closed and in a cool, well-ventilated place Keep away from direct sunlight and other sources of heat or ignition.
Storage Regulations	Refer Australian Standard AS 3780 - 1994 'The storage and handling of corrosive substances'.

8. Exposure controls/personal protection

Other Exposure Information	No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m3. All atmospheric contamination should be kept to as low a level as is workable.
Appropriate engineering controls	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.
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. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	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.
Personal Protective Equipment	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.
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 an 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	Solid
Appearance	Colourless, highly deliquescent, glassy mass.
Odour	Odourless.
Melting Point	200 - 250 °C
Boiling Point	~ 600 °C
Solubility in Water	Soluble (slowly forms the ortho-acid)
Solubility in Organic Solvents	Soluble in alcohol.
Specific Gravity	2.2 - 2.49
pH	2 (33 g/l, H2O, 20 °C)
Vapour Pressure	< 0.001 hPa (20 °C)
Vapour Density (Air=1)	> 1 g/l
Flammability	Non combustible material.
Molecular Weight	79.98

10. Stability and reactivity

Chemical Stability	Stable under normal use conditons. Hygroscopic Slowly changes to orthophosphoric acid in water.
Conditions to Avoid	Exposure to moisture. Exposure to direct sunlight. Heat, flames, ignition sources and incompatibles.
Incompatible Materials	Alcohols, alkali metals/heat, alkali oxides/heat, alkali salts, acids, combustible substances, halogen-halogen compounds, halogen oxides, hydrogen halides, halogens, hydrogen peroxide, metals (i.e. alkaline earth metals), nitromethane, organic substances, perchloric acid, peroxy compounds, strong bases, sulfides, metals/water.

Hazardous Decomposition Products	Oxides of phosphorus and/or phosphine.
Possibility of hazardous reactions	Corrodes common metals. Phosphorus oxides may form when heated to decompositon.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	Causes burns and pain to mouth, throat, and esophagus with associated vomiting and abdominal pain. Risk of perforation in the oesophagus and stomach! Other symptoms include nausea, vomiting, diarrhea and shock. May cause damage to the mucous membranes. May cause hemorrhaging of the digestive tract. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.
Inhalation	Causes severe irritation of upper respiratory tract with coughing, sore throat, burns, breathing difficulty and possible coma. Irritation may lead to chemical pneumonitis, bronchitis, and pulmonary edema.
Skin	Causes burns. Corrosive to skin. May be harmful if absorbed through the skin. May cause redness and pain leading to ulceration.
Eye	Causes burns. May cause serious damage to eye. Corrosive to eyes. Irritating to eye tissue, may cause pain and blurred vision which may lead to irreversible eye injury.
Carcinogenicity	No evidence of carcinogenic properties.
Chronic Effects	Prolonged inhalation to high concentrations may cause respiratory tract inflammation and lung damage. Prolonged and repeated skin contact may cause dermatitis. Repeated contact may cause corneal damage. Prolonged exposure to vapors from aquesous solutions may cause erosion of teeth.
Mutagenicity	No evidence of mutagenic properties.

12. Ecological information

Ecotoxicity	Quantitative data on the ecological effect of this product are not available.
Other Adverse Effects	Product reacts with water. Harmful due to pH shift.
Acute Toxicity - Other Organisms	LC50 (aquatic organisms): 100 mg/l, 96h
Other Information	Depending upon the concentration, phosphorus compounds may contribute to the eutrophication of water supplies.

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.

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	3260
UN proper shipping name	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. - (Metaphosphoric acid)
Transport hazard class(es)	8
Hazchem Code	2X
Packaging Method	3.8.8
Packing Group	III
IERG Number	37
Other Information	IERG Number: 37

15. Regulatory information

Regulatory Information	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.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. 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. Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. 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 Chemical 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) 3rd Edition]'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: 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.
Empirical Formula & Structural Formula	$(HPO_3)_x$

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