



# SAFETY DATA SHEET

## SECTION 1 IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

<b>Product Identifier</b>	<b>PHOSPHORIC ACID 81%</b>
<b>Other Names</b>	Orthophosphoric Acid, Hydrogen Phosphate
<b>Manufacturer's Product Code</b>	21026
<b>Recommended Use</b>	Manufacture of phosphate fertilizers and salts, detergents, corrosion inhibitors, water treatment

### Details of Supplier/Manufacturer

Company:	Recochem Inc. ABN: 69 010 485 999
Address:	1809 Lytton Road, Lytton, Queensland 4178
Phone:	(07) 3308 5200 Fax: (07) 3308 5201
Website:	www.recochem.com.au

### Emergency Telephone Numbers

Business Hours:	(07) 3308 5200
After Hours:	1300 131 001
Poisons Information:	Australia: 13 11 26 New Zealand: 0800 764 766

## SECTION 2 HAZARDS IDENTIFICATION

<b>Hazardous chemical</b>	<i>according to classification by Safe Work Australia</i>
<b>Dangerous goods</b>	<i>according to the Australian Code for the Transport of Dangerous Goods by Road and Rail</i>

<b>Signal Word</b>	<b>DANGER</b>
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GHS Classification	Pictogram	Hazard statement
Skin Corrosion/Irritation, Category 1B	 CORROSION	H314 Causes severe skin burns and eye damage
Acute Toxicity (Inhalation), Category 4	 EXCLAMATION MARK	H332 Harmful if inhaled

**Product: PHOSPHORIC ACID 81%****Precautionary statements:**

<i>GENERAL</i>	
P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
P103	Read label before use
<i>PREVENTATIVE</i>	
P260	Do not breathe dusts or mists
P264	Wash thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/eye protection/face protection
<i>RESPONSE</i>	
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353	IF ON SKIN (or hair): Take off contaminated clothing and wash before reuse. 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
P363	Wash contaminated clothing before reuse
<i>STORAGE</i>	
P405	Store locked up
<i>DISPOSAL</i>	
P501	Dispose of contents/container in accordance with local regulations

**SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS****Ingredients Names and Proportions**

Chemical Entity	CAS Number	Proportion (%)
Phosphoric Acid	7664-38-2	≥ 81
Water	7732-18-5	Balance

**SECTION 4 FIRST AID MEASURES****Description of necessary first aid measures**

Inhalation:	Remove victim from exposure if safe to do so. Remove contaminated clothing. Seek immediate medical advice
Skin Contact:	DO NOT DELAY. If spilt on large area of skin or hair, immediately drench with running water and remove contaminated clothing. Continue to wash skin and hair with plenty of water until advised to stop by the Poisons Information Centre or a doctor. Seek medical attention.
Eye Contact:	DO NOT DELAY. If in eyes, hold eyes open, flood with water for at least 15 minutes or until advised by the Poisons Information Centre or a doctor. Seek immediate medical attention
Ingestion:	Immediately rinse mouth with copious amounts of water. Seek immediate medical attention

**Symptoms caused by exposure**

Inhalation:	May cause respiratory irritation and possible harmful corrosive effects, including breathing difficulty, lung inflammation, sneezing and throat swelling
Skin:	A severe irritant. Will cause redness, itching, irritation, severe pain and chemical burns

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Eye:	A severe irritant. May include pain or burning sensation, redness, swelling and/or blurred vision. Concentrated solutions can cause permanent eye damage
Ingestion:	May cause burns to the mouth and throat, pain in the stomach, difficulty in breathing, nausea, vomiting diarrhoea, and convulsions. It may cause gastric or oesophageal perforation

**Medical attention and special treatment**

Treat symptomatically.

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**SECTION 5 FIRE FIGHTING MEASURES**

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**Suitable extinguishing equipment**

Not combustible, however, if material is involved in a fire use: foam, dry chemical powder, carbon dioxide, water spray or water fog (do not use water jets).

**Specific hazards arising from the chemical**

Will decompose in fire conditions, releasing toxic and irritating oxides of phosphorus. Contact with common metals produces hydrogen which may form flammable mixtures with air.

**Special protective equipment and precautions for fire fighters**

Wear full protective clothing and self-contained breathing apparatus. Hazchem code 2R.

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**SECTION 6 ACCIDENTAL RELEASE MEASURES**

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**Personal precautions, protective equipment and emergency procedures**

Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Wear protective equipment to prevent skin and eye contact and breathing mist. Work upwind or increase ventilation. Caution – heat may be evolved on contact with water.

**Environmental precautions**

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers. If contamination of sewers or waterways has occurred advise local emergency services.

**Methods and materials for containment and cleaning up**

Cover with absorbent inert material, sand or soil. Sweep or vacuum up, but avoid generating mists. For small spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely. For larger spills (> 1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Do not flush residues with water. Retain as contaminated waste. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

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**SECTION 7 HANDLING AND STORAGE**

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**Precautions for safe handling**

Non-combustible material. Avoid skin and eye contact and breathing mists. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas. Before eating, drinking or smoking, remove contaminated clothing and wash hands. When preparing or diluting acid solutions, the acid should be added slowly to water with plenty of careful stirring to prevent overheating, splashing and splattering of the acid.

**Conditions for safe storage, including any incompatibilities**

Store in a cool, dry and well-ventilated area, away from sunlight, ignition sources and other sources of heat. Keep containers closed when not in use – check regularly for spills. Have emergency equipment (for fires, spills, leaks etc.) readily available. Keep away from incompatible materials (see SECTION 10).

**SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure control measures**

From National Occupational Health & Safety Commission (NOHSC) Worksafe Australia -  
Phosphoric Acid: 3mg/m<sup>3</sup> STEL, 1mg/m<sup>3</sup> TWA

**Biological monitoring**

No biological limit allocated.

**Engineering controls**

Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists and vapours. Keep containers closed when not in use.

**Individual protection measures**

Eye and face protection:	Wear safety goggles.
Skin protection:	Use solvent resistant gloves, nitrile for longer term protection or PVC and neoprene for incidental splashes.
Respiratory protection:	If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point > 65°C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.
Thermal hazards:	Not applicable.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Clear, colourless syrupy liquid
Odour:	Odourless
Odour threshold (ppm):	Data not available
pH:	1.5 (1% solution in water)
Melting point/freezing point (°C):	21
Initial boiling point and boiling range (°C):	158
Flash point (°C):	Data not available
Evaporation rate (Butyl acetate = 1):	Data not available
Flammability:	Non-combustible
Upper/lower flammability or explosive limits (%):	Data not available
Vapour pressure (kPa @ 20°C):	Data not available
Vapour density (air = 1 @ 15°C):	Data not available
Density (g/ml @ 20°C):	1.685
Solubility (kg/m <sup>3</sup> ):	Miscible with water
Partition coefficient: n-octanol/water:	Data not available
Auto-ignition temperature (°C):	Data not available
Decomposition temperature (°C):	Data not available
Kinematic viscosity (mm <sup>2</sup> /s @ 25°C):	Data not available

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**SECTION 10 STABILITY AND REACTIVITY**

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**Reactivity**

Stable under normal conditions of use.

**Chemical stability**

Stable under normal conditions of use.

**Possibility of hazardous reactions**

Stable under normal conditions of use.

**Conditions to avoid**

Will absorb moisture from the atmosphere. Reacts exothermally with water.

**Incompatible materials**

Incompatible and will react with strong bases, strong oxidising and reducing agents, sulphides, phosphides, cyanides, acetylides, fluorides and carbides releasing flammable or toxic gases.

**Hazardous decomposition products**

Nature of decomposition products not known.

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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Acute toxicity:	LD50 Oral (rat) = 1530mg/kg.
Skin corrosion/irritation:	LD50 Dermal (rabbit) = 2740mg/kg Contact with skin will result in severe irritation. Corrosive to skin – may cause burns with resultant tissue destruction
Serious eye damage/irritation:	Corrosive to eyes. Mists may cause severe eye irritation. Concentrated solutions can cause severe burns, pain and permanent eye damage
Respiratory or skin sensitisation:	Not expected to be a sensitiser.
Germ cell mutagenicity:	Not expected to be mutagenic.
Carcinogenicity:	Not expected to be carcinogenic.
Reproductive toxicity:	Not expected to impair fertility.
Specific Target Organ Toxicity (STOT) – single exposure:	Ingestion may cause burns to the mouth, and gastric or oesophageal perforation. Inhalation may have possible harmful corrosive effects including lesions of the nasal septum, pulmonary oedema, pneumonitis and emphysema. Prolonged exposures can cause necrosis of nasal passages and oedema of the lungs.
Specific Target Organ Toxicity (STOT) – repeated exposure:	Data not available.
Aspiration hazard:	Data not available.

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**SECTION 12 ECOLOGICAL INFORMATION**

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**Ecotoxicity**

Avoid contaminating waterways. May be harmful to aquatic organisms due to the shift of the pH.

Acute toxicity:

Fish –	Data not available
Aquatic invertebrate –	Data not available
Algae –	Data not available

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Microorganisms –	Data not available
Chronic toxicity:	
Fish –	Data not available
Aquatic invertebrate –	Data not available
Algae –	Data not available
Microorganisms –	Data not available

**Persistence and degradability**

Data not available.

**Bioaccumulative potential**

Data not available.

**Mobility in soil**

Miscible with water.

**Other adverse effects**

Data not available.

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**SECTION 13 DISPOSAL CONSIDERATIONS**

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Ensure waste disposal conforms to local waste disposal regulations.

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**SECTION 14 TRANSPORT INFORMATION**

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<b>UN number:</b>	1805
<b>Proper shipping name:</b>	PHOSPHORIC ACID
<b>Australian Dangerous Goods class:</b>	8
<b>Australian Dangerous Goods packing group:</b>	III
<b>Hazchem code:</b>	2R

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**SECTION 15 REGULATORY INFORMATION**

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Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	6
Australian Inventory of Chemical Substances (AICS):	Listed
Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76):	37

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**SECTION 16 OTHER INFORMATION**

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Date of preparation:	29/04/2021
Revision number:	3
Changes in this revision:	Reviewed due to expiration

**Product: PHOSPHORIC ACID 81%**

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This SDS summarises product safety information at the date of issue, to the best of our knowledge, as a general guide. Recochem cannot anticipate or control the conditions under which the product is used, so prior to usage each user must assess and control the risks associated with their use of the product. Users should also consult the relevant legislation governing the use and storage of this product. We make no warranties, express or implied, and assume no liability in connection with any use of information contained within this document. If clarification or further information is needed, the user should contact Recochem on (07) 3308 5200.

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