

# Safety Data Sheet

**AQUAPAC**

Water Treatment & Specialty Chemicals

## Hazardous Chemical, Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: phosphoric acid 85%

#### Synonyms

Orthophosphoric Acid; PHOSPHORIC ACID; White Phosphoric Acid

#### Product Code

Recommended use: Water Treatment

**Supplier:** Aquapac Pty Ltd  
**ABN:** 36 114 118 311  
**Street Address:** 88 Lee Holm Road  
St Marys NSW 2760  
**Telephone:** 02 9673 1192  
**Facsimile:** 02 9673 1193

Emergency Telephone number: 1800 HELP

### 2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



#### Signal Word

Danger

#### Hazard Classifications

Acute Toxicity - Oral - Category 4  
Acute Toxicity - Dermal - Category 5  
Skin Corrosion/Irritation - Category 1A  
Serious Eye Damage/Irritation - Category 1

#### Hazard Statements

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.

#### Prevention Precautionary Statements

P102 Keep out of reach of children.  
P103 Read label before use.  
P260 Do not breathe dust, fume, gas, mist, vapours or spray.  
P264 Wash hands, face and all exposed skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

#### Response Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
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

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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.  
P321 Specific treatment (see product label).  
P330 Rinse mouth.  
P363 Wash contaminated clothing before reuse.

### Storage Precautionary Statement

P405 Store locked up.

### Disposal Precautionary Statement

P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

### Poison Schedule:

### DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**Dangerous Goods Class:** 8

### 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Phosphoric acid	7664-38-2	85 %
Water	7732-18-5	BALANCE %
Ingredients determined to be Non-Hazardous		Balance

### 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Remove victim from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical advice.

**Skin Contact:** Remove contaminated clothing. Wash affected area with plenty of flowing clean water for at least 15 minutes. Seek immediate medical attention. Wash clothing before reuse. If burned, treat as burn by acid.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Seek immediate medical attention.

**Ingestion:** Rinse mouth with water. Give water to drink provided person is conscious. Do NOT induce vomiting. Seek medical attention immediately.

**Notes to physician:** Treat symptomatically. Can cause corneal burns. Treat symptomatically based on judgement of doctor and individual reactions of patient. NOTE: Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

### 5. FIRE FIGHTING MEASURES

**Hazchem Code:** 2R

**Product Name:** phosphoric acid 85%

**Reference No:** PHOSPHORIC ACID

**Issued:** 2016-12-01

**Version:** 2016.1

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**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

**Specific hazards:** Non-combustible material.

**Fire fighting further advice:** Not applicable.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

### LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

**Dangerous Goods – Initial Emergency Response Guide No: 37**

## 7. HANDLING AND STORAGE

**Handling:** Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Class 8 Corrosive as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**National occupational exposure limits:**

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Phosphoric acid	-	1	-	3	-

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These 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.

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If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering Measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

**Personal Protection Equipment:** SAFETY SHOES, OVERALLS, GLOVES, APRON, FACE SHIELD.

Wear safety shoes, overalls, gloves, apron, face shield. Available information suggests that gloves made from neoprene, polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Material Family:</b>	Phosphorus Compounds
<b>Base Units:</b>	Litres
<b>Form:</b>	Clear Liquid
<b>Colour:</b>	Transparent, Colourless
<b>Odour:</b>	Odourless
<b>Solubility:</b>	No Data Available
<b>Specific Gravity (20 °C):</b>	1.58-1.69
<b>Boiling Point/Range (°C):</b>	135C - 158C
<b>pH:</b>	1.5

(Typical values only - consult specification sheet)  
N Av = Not available, N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Product is stable under normal conditions of use, storage and temperature. Corrosive Liquid. Hygroscopic: absorbs moisture or water from the air.

**Conditions to avoid:** Avoid excessive heat, direct sunlight, moist air or water.

**Incompatible materials:** Incompatible with strong oxidizing agents, strong reducing agents, strong alkali, active powdered metals, Fluorine, sulphur trioxide, phosphorus pentoxide, metals, and sources of ignition.

**Hazardous decomposition products:** This product will release hydrogen on contact with metals, which may cause explosion in the air. Reacts with water to generate heat and form phosphoric acid. The reaction is not violent. Emits toxic fumes under fire conditions. It will produce the virulent gas of oxidation phosphorus at a high temperature. It is corrosive. Hazardous decomposition products may include Phosphine, oxides of phosphorus, and hydrogen gas.

**Hazardous reactions:** Hazardous Polymerization May occur. Reacts with water to generate heat and form

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phosphoric acid. The reaction is not violent. Reacts with Bases.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

### Acute Effects

**Inhalation:** Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical phenomenon, and pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. May be harmful by inhalation. Mists may cause lung irritation, shortness of breath, fluid in lungs.

**Skin contact:** Causes burns. Causes irritation, burns.

**Ingestion:** Harmful if swallowed. Causes burns. Harmful by ingestion. Can cause nausea, diarrhea, corrosion, burns to mouth and esophagus, abdominal pain, chest pain, shortness of breath, seizures, and death.

**Eye contact:** Causes burns. Corrosive. Causes tissue destruction, permanent damage to the cornea, blindness.

### Acute toxicity

**Inhalation:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

**Skin contact:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Ingestion:** This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 300 - 2,000 mg/Kg

**Corrosion/Irritancy:** Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1A Hazard (irreversible effects to skin).

**Sensitisation:** Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

**Aspiration hazard:** This material has been classified as non-hazardous.

**Specific target organ toxicity (single exposure):** This material has been classified as non-hazardous.

### Chronic Toxicity

**Mutagenicity:** This material has been classified as non-hazardous.

**Carcinogenicity:** This material has been classified as non-hazardous.

**Reproductive toxicity (including via lactation):** This material has been classified as non-hazardous.

**Specific target organ toxicity (repeat exposure):** This material has been classified as non-hazardous.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** Do NOT let product reach waterways, drains and sewers.

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**Long-term aquatic hazard:** This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K<sub>ow</sub> < 4.

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



**UN No:** 1805  
**Dangerous Goods Class:** 8  
**Packing Group:** III  
**Hazchem Code:** 2R  
**Emergency Response Guide No:** 37

**Proper Shipping Name:** PHOSPHORIC ACID, SOLUTION

**Segregation Dangerous Goods:** Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

### MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



**UN No:** 1805  
**Dangerous Goods Class:** 8

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**Packing Group:** III  
**Proper Shipping Name:** PHOSPHORIC ACID, SOLUTION

## AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



**UN No:** 1805  
**Dangerous Goods Class:** 8  
**Packing Group:** III  
**Proper Shipping Name:** PHOSPHORIC ACID, SOLUTION

## 15. REGULATORY INFORMATION

### This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)  
The Stockholm Convention (Persistent Organic Pollutants)  
The Rotterdam Convention (Prior Informed Consent)  
Basel Convention (Hazardous Waste)  
International Convention for the Prevention of Pollution from Ships (MARPOL)

## 16. OTHER INFORMATION

Reason for issue: Format change

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.