

Safety Data Sheet

Environmental Protection Authority

Hazardous Substances (identification)
Regulations 2004 (NZ)



Product Name
25% Ortho-Phosphoric Acid

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section 1

Manufacturer's Name: Pacific Rim Oenology Services	Emergency Telephone Number: National Poisons 24hr: 0800 764 766
Address (Number, Street, City, Region, and Post Code): 4 Bristol St, Riverlands, Blenheim, Marlborough, 7274	Telephone Number for Information: (+64) (0) 3 577-9000
PO Box 1132, Blenheim 7240	Original - Issue date: 19/07/17 - 10/11/17
New Zealand	

Section 2 - Hazard(s) identification

Hazardous Components (Specific Chemical Identity; Common Name(s))	HSNO for components	Classification
Ortho-Phosphoric Acid #7664-38-2	HSR001545	6.1D, 6.1E, 8.1A, 8.2C, 8.3A, 9.1D, 9.3C

Section 3 - Label Elements



Signal word

Danger

Hazard statements

H314 - Causes severe skin burns and eye damage

Precautionary statements

P260 - Do not breathe mist, vapours, spray

P264 - Wash exposed skin thoroughly after handling

P280 - Wear protective gloves, protective clothing, eye protection, face protection

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 person to fresh air and keep 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

P363 - Wash contaminated clothing before reuse
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P501 - Dispose of contents/container to comply with local, state and federal regulations

Section 4 - Composition and information on ingredients

Component	CAS-No	% v/v
Ortho-Phosphoric Acid	7664-38-2	25

Section 5 - First Aid Measures

Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
Most important symptoms/effects	Causes burns by all exposure routes. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty and possible coma. Corrosive to eyes and causes severe burns. May cause skin rash, causes severe burns and ulceration. Do not induce vomiting if ingested.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Get medical attention immediately.
Ingestion	Do not induce vomiting. Get medical attention immediately. If victim is conscious clean mouth with water and drink afterwards plenty of water.
Skin Contact	Wash off immediately with plenty of water while removing all contaminated clothes and shoes. Get medical attention if needed. Wash clothing before re-use.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes and consult a physician.
First Aid Facilities	Eyewash, safety shower and washroom.
Notes to Physician	Treat symptomatically. Symptoms may be delayed.

Section 6 - Fire Fighting Measures

Suitable Extinguishing Media

Carbon Dioxide, water spray or fog, foam or dry chemical powder extinguishers may be used.

Unsuitable extinguishing Media

None known.

Hazardous Combustion Products

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapours.
 The product causes burns of eyes, skin and mucous membranes.

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Thermal decomposition can lead to release of irritating gases and vapours.

Section 7 - Accidental Release Measures

Emergency procedures

Use personal protective equipment.
 Ensure adequate ventilation.
 Evacuate personnel to safe areas.
 Keep people away from and upwind of spill/leak

Environmental Precautions

See Section 13 for additional ecological information.
Should not be released into the environment.
Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up

Soak up with inert absorbant material.
Keep in suitable, closed containers for disposal

Reference to Other Sections

Refer to protective measures listed in Sections 9 and 14.

Section 8 - Handling and Storage

Precautions for Safe Handling

Wear personal protective equipment.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.
Do not ingest.
Use only non-sparking tools.
To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.
Take precautionary measures against static discharges.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place.
Keep away from heat and sources of ignition. Keep in corrosives area
AS/NZS 2243.10:2004, Safety in Laboratories - Storage of chemicals

Section 9 - Exposure Controls and Personal Protection

Exposure limits

Workplace Exposure Standards and Biological Exposure Indices (8th edition). New Zealand Department of Labour

Component	New Zealand WEL
Phosphoric Acid	TWA: 1 mg/m ³

Biological limit values

Substances assigned Biological Exposure Indices in the New Zealand Workplace Exposure Standards and Biological Exposure Indices (8th edition). New Zealand Department of Labour.
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection	Safety glasses with side-shields (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications).
Hand Protection	Protective gloves AS/NZS 2161.1.
Skin and body protection	Long sleeved clothing.
Respiratory Protection	Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water system. Harmful to terrestrial vertebrates.
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Section 10 - Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Clear Colourless
Physical State	Liquid
Odour	No information available
Odour Threshold	No data available
pH	1.5
Melting Point/Range	No data available
Softening Point	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	Not applicable - Liquid
Explosion Limits	Not applicable
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity / Density	1.20
Bulk Density	Not applicable
Water Solubility	Miscible
Solubility in other solvents	No information available
Partition Coefficient (n-octanol/water)	
Component	log Pow
Ethyl alcohol	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidising Properties	No information available
Other information	
Molecular Formula	H ₃ PO ₄
Molecular Weight	98

Section 11 - Stability and Reactivity

Reactivity	None known, under normal conditions
Stability	Stable under normal conditions. Contact with alkaline material liberates heat.
Conditions to Avoid	Incompatible products, strong alkalis, metals, alcohols, amines, aldehydes, excess heat.
Hazardous Decomposition Products	None under normal use conditions.
Hazardous Polymerisation	Hazardous polymerisation does not occur

Section 12 - Toxicological Information

Information on Toxicological Effects Product Information

a) acute toxicity;	
Oral	Category 4
Dermal	Category 5
Inhalation	Based on available data, the classification criteria are not met
(b) skin corrosion/irritation;	Category 1C
(c) serious eye damage/irritation;	Category 1
(d) respiratory or skin sensitization;	No data available
Respiratory	No data available
Skin	No data available
(e) germ cell mutagenicity;	No data available
(f) carcinogenicity;	There are no known carcinogenic chemicals in this product
(g) reproductive toxicity;	No data available
(h) STOT-single exposure;	No data available
(i) STOT-repeated exposure;	No data available
Target Organs	No information available
(j) aspiration hazard;	No data available
Symptoms / effects, both acute and delayed	Causes burns by all exposure routes. Can cause severe irritation of upper respiratory tract with coughing, burns, breathing difficulty and possible coma. Corrosive to eyes and causes severe burns. May cause skin rash, causes severe burns and ulceration. Do not induce vomiting if ingested.

Section 13 - Ecological Information

Ecotoxicity effects	Contains a substance which is: Toxic to aquatic organisms See below
Persistence and Degradability	
Persistence	Soluble in water Persistence is unlikely, based on information available
Degradation in sewage	Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants
Treatment plant	Water treatment plants
Bioaccumulative Potential	Bioaccumulation is unlikely
Mobility	The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils
Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant	This product does not contain any known or suspected substance
Ozone Depletion Potential	This product does not contain any known or suspected substance

The product contains following substances which are hazardous for the environment:

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Phosphoric Acid	98-106 mg/L LC50 = 96 hrs	>100 mf/L EC50 = 48 hrs		

Section 14 - Disposal Considerations

Waste from Residues / Unused Products	Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous.
Other Information	Disposal agencies or waste contractors must comply with the New Zealand Hazardous Substances (Disposal) Regulations. Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with low pH-value must be neutralized before discharge

Section 15 - Transport Information

IMDG/IMO

UN-No	UN1805
Proper Shipping Name	PHOSPHORIC ACID SOLUTION
Hazard Class	8
Packing Group	III

NZS 5433:2012

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Component	Hazchem Code
Phosphoric Acid 7664-38-2	2X

IATA

UN-No	UN1805
Proper Shipping Name	PHOSPHORIC ACID SOLUTION
Hazard Class	8
Packing Group	III

Environmental hazards	Slightly harmful to the aquatic environment
Special Precautions	Is corrosive to skin and eyes, wear appropriate safety gear
Additional information	Harmful to terrestrial vertebrates

Section 16 - Regulatory Information

Component	HSNO Approval Number
Phosphoric Acid	HSR001545

Section 17 - Other Information

Legend

- LD50** - Lethal Dose 50%
LC50 - Lethal Concentration 50%
EC50 - Effective Concentration 50%
WEL - Workplace Exposure Limit
TWA - Time Weighted Average

Key literature references and sources for data

Suppliers safety data sheet, EPA, NZTA

For a correlation of GHS and HSNO classes and categories refer to:

<http://www.epa.govt.nz/publications/hsnogen-ghs-nz-hazard.pdf>

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Revision Date: 14/08/2020

Revision Summary: Update toxicology

Version: 3

Owner: Laboratory Manager

Disclaimer

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End of Safety Data Sheet