Spraygro Liquid Fertilizers

ABN 47 007 974 496

Safety Data Sheet

Globally Harmonised System (GHS)

Liquid Phosphorus

Compilation date	28/08/2015
Last revision date	30/03/2026
Valid to	29/03/2031
Version #	5

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name:	**Liquid Phosphorus**
CAS Number:	7664-38-2
Product Code:	Liquid Phosphorus
Formula	H3PO4
Synonyms	Orthophosphoric acid

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: **Fertiliser**

1.3 Details of the supplier of the safety data sheet

Company Name:	Spraygro Liquid Fertilizers
Address:	76 Grand Trunkway, Gillman, SA, 5013, AUSTRALIA
Telephone:	+61 8 8447 7266

1.4 Emergency number

Emergency Contacts:	0438 897 977 - Product Chemist
	0407 606 409 - National Sales Manager

SECTION 2: Hazards Identification

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

Classification of the substance or mixture:

Corrosive to metals, category 1

Skin corrosion, category 1C

SIGNAL WORD: **DANGER**



Hazard Statement(s):

H290: May be corrosive to metals

H314: Causes severe skin burns and eye damage

Poisons Schedule: S6 (SUSMP)

Precautionary Statement(s):

Prevention:

P234: Keep only in original container.
P260: Do not breathe mists or aerosols sprays.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P311: Call a POISON CENTER or doctor.
P321: Specific treatment is urgent (see First aid on this label).
P363: Wash contaminated clothing before reuse.
P390: Absorb spillage to prevent material damage.
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

Storage:

P405: Store locked up.

P406: Store in a corrosive resistant container with a resistant inner liner.

Disposal:

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

SECTION 3: Composition/Information on Ingredients

3.1 Components

Components	CAS Number	Proportion	Material Hazard Codes
water		10 to 30%	
phosphoric acid	7664-38-2	>60%	H290,H314,H318

SECTION 4: First Aid Measures

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126)

Inhalation:

If aerosols are inhaled:
- Remove from contaminated area.
- Other measures are generally unnecessary.

Skin Contact:

If skin or hair contact occurs:
- Immediately flush body and clothes with water (use a safety shower if available).
- Remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Contact Poisons Information Centre.
- Transport to hospital, or doctor.

Eye Contact:

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Contact a Poisons information centre or a doctor and continue flushing until advised to stop.
- Transport to hospital or doctor.
- Removal of contact lenses if worn should be undertaken by skilled personnel.

Ingestion:

If ingestion occurs:

- Do NOT induce vomiting
- For advice, contact a Poisons Information Centre, or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If vomiting occurs lean patient forward or place on left side to maintain open airway and prevent aspiration.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness. i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.
- Observe the patient carefully.

Signs and Symptoms of Exposure:

Can cause corneal burns.

Ingestion of phosphate salts may cause an osmotic catharsis resulting in diarrhoea and abdominal cramps. All phosphate salts, except calcium salts, have a risk of hypocalcaemia.

Note to Physician:

For phosphate poisoning, calcium levels in the blood should be monitored.

SECTION 5: Fire Fighting Measures

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Hazchem or emergency Action Code

- 2R

Special Hazards arising from the substrate or mixture

- None known

Advice for firefighters

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

Fire/Explosion Hazard:

- Non-Combustible
- Decomposition products may produce the following toxic and/or corrosive fumes:

May react with metals to produce hydrogen, a highly flammable and explosive gas.

SECTION 6: Accidental Release Measures

Minor spills

- Clean up spill immediately
- Wear personal protective equipment when cleaning up (see section 8).
- Clean up spill with sand or dirt or other inert material.
- For neutralising (if opted), do not use base directly, use sand and base.
- Sweep/shovel for disposal. Comply with procedures laid down by local, state and federal governments.

Major Spill

- Clear area of personnel
- Contact Fire brigade or other hazard agency.

Prevent entry of spills to sewer and public water. Notify authorities if liquid enters sewers or public water.

SECTION 7: Handling and Storage

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

Precautions for Safe Handling

- Avoid skin and eye contact.
- Wash hands and other exposed area with mild soap and water before eating, drinking or smoking.

Conditions for safe storage

- Store in a cool, dry, well ventilated place and out of direct sunlight.
- Do not store close to food or food cartons.
- Store away from incompatible materials described in Section 10.
- Keep containers closed when not in use.
- Check regularly for spills.
- Keep out of reach of children and pets.
- Do not store in a metal container
- Do not transfer this product to another container.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters: Exposure Standard(s) for constituent(s):

Phosphoric acid
TWA - 1mg/m^3
STEL - 3mg/m^3

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work

Appropriate Engineering Controls:
For 1000L IBC containers, ensure a contingency plan is in place in the event of malfunction of the tap.

Personal Protective Equipment

Eye and Face Protection

- Wear googles or face shield and take all steps to avoid splashing.
- It not recommended that contact lenses be used as they may concentrate irritants.

Skin Protection

- Wear chemically resistant LONG gloves.
- Wear rubber boots.
- Wear Apron or Overalls.
- Do not wear clothes or shoes that reveal bare skin.

Respiratory protection

- Not required under normal conditions.

SECTION 9: Physical and Chemical Properties

Physical state:	Liquid
Colour:	colourless
Odour:	minor
pH (average):	-1.0
Freezing point:	< $0^{o}C$
Boiling point:	~ $105^{o}C$
Flash point:	none
Evaporation rate:	no data
Flammability:	not flammable
Vapour pressure:	same as water
Vapour density:	same as water
Specific Gravity:	1.58 (water = 1)
Solubility:	Completely soluble in water
Partition co-efficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data
Viscosity	1 to 100 mPa.s (water = 1)

SECTION 10: Stability and Reactivity

Reactivity and Associated Hazards

- Reacts with basic (alkaline) chemicals to form non-dangerous salt precipitates.
- My corrode metal and form hydrogen gas.
- Highly exothermic when reacting with basic (alkaline) chemicals.

Stability

- Stable under normal conditions of use.
- Hazardous polymerisation will not occur.

Conditions to avoid

See Section 7

Incompatible materials

Incompatible with:
• Basic (alkaline) chemicals
• Metals

Hazardous Decomposition Products

SECTION 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:

Ingestion:
• Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain.

Eye Contact:
• A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Skin Contact:
• Corrosive to skin - may cause skin burns.

Inhalation:
• The components in this liquid are not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives) and the product is non-volatile.

Chronic:
• Chronic effects adverse to the health are not considered for the components in this liquid (as classified by EC Directives). Exposure by all routes should be minimised as a precaution.

Hazards for individual components*

Components	Acute Toxicity	Irritation
phosphoric acid	LD50 for rat (oral) 3500mg/kg	skin/eye corrosive

* additional toxicity data, including sensitisation, genetic toxicity, carcinogenicity can be found in the European Chemical Agency (ECHA) databases.

SECTION 12: Ecological Information

• DO NOT CONTAMINTE WATERWAYS

Ecotoxicity for product: No available data

- Ecotoxicity for individual components*

Components	Acute Aquatic Toxicity
phosphoric acid	LC50 (96h) Oryzias =75mg/L

* additional toxicity data, including long-term aquatic toxicity, aquatic invertebrates, algae/microorganisms can be found in the European Chemical Agency (ECHA) databases.

Persistence and degradability: No specific data on this product

Bioaccumulative Potential: No specific data on this product
Mobility in Soil: No specific data on this product

SECTION 13: Disposal Considerations

Disposal methods:

• Reuse or recycle clean containers where possible.

• Refer to local government authority for disposal recommendations. Dispose of material through a licensed waste contractor.

Normally suitable for disposal at approved land waste site.

SECTION 14: Transport Considerations

Land Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN No	1805
Transport Hazard Class	8
Packing Group	III
Proper Shipping Name	Phosphoric acid
Hazchem or Emergency Action Code	2R

Marine Transport (IMDG)

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

UN No	1805
Transport Hazard Class	8
Packing Group	III
Proper Shipping Name	Phosphoric acid

Air Transport (IATA)

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

UN No	1805
Transport Hazard Class	8
Packing Group	III
Proper Shipping Name	Phosphoric acid

SECTION 15: Regulatory Information

The components of this product are listed on the Australian Inventory of Chemical Substances (AICS).

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

Poison Schedule: **6** **(SUSMP)**

SECTION 16: Other Information

This SDS was prepared using:

- The Globally Harmonized System of Classification and Labelling of Chemicals GHS (7th - 10th Edition) 2017-2023
- European Chemical Agency C&L Inventory
- Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia 2023)
- Classifying Hazarous Chemicals - National Guide (Safe Work Australia 2018)
- Australian Inventory of Chemical Substances (AICS)
- The Poisons Standard, SUSMP (2022)
- Australian Code for the Transport of Dangerous Goods by Road and Rail. Edition 7.9 (2024)
- Boivin, M. A., Kahn, S. R., *American Journal of Gastroenterology* , **93,** 2577-2579 (1998)

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material. Since Spraygro Liquid Fertilizers Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

Compilation date	28/08/2015
Revision date	30/03/2026
Version #	5

End of document