

1. Identification of the Substance/Preparation:

Product name: pH Down
Use: For lowering the pH of hydroponic nutrient solutions
Company: Floragarden Wholesale
Address: PO Box 173, Applecross, WA 6953, AUSTRALIA.
Telephone Number: (+61) 0411-297-030
Emergency Telephone Numbers: (+61) 0411-297-030

2. Hazards identification

Non Dangerous good

Hazard classification:

Classified as hazardous according to NHOSC Australia

Risk phrases:

R36/37/38 - Irritating to eyes, respiratory system and skin

Safety phrases:

S2 - Keep out of reach of children.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S46 - Harmful if swallowed. If swallowed, do not induce vomiting. Drink a glass of water, seek medical advice immediately and show this container or label.

3. Composition/information on ingredients

Aqueous solution for lowering pH of hydroponic nutrient solutions.

Common Name	CAS	EINECS	Conc
Citric Acid	77-92-9	201-069-1	50% W/V
Water & inert ingredients			to 100%

4. First-aid measures

Swallowed: DO NOT induce vomiting. If conscious give a little water to drink; Rinse mouth with water. Obtain medical attention immediately.

Eye: Irrigate eyes with gently flowing water for 15 minutes with eyelids held open. Take care not to rinse the contaminated water into the non affected eye. If irritation persists repeat the flushing. Obtain medical attention immediately.

Skin: Flush with plenty of clean water for at least 15 minutes while removing contaminated clothing and footwear. Affected clothing should be washed before reuse. Get medical attention if irritation develops or persists.

Inhaled: Remove victim from exposure - avoid becoming a casualty and remove contaminated clothing. If breathing is difficult give oxygen. Obtain medical attention immediately.

5. Fire fighting measures

Fire / Explosion: Not combustible but residue may burn in presence of a strong ignition source after water has evaporated. Store away from oxidizers, bases. Can be explosive with metal nitrates.

Flammability: Not flammable.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide or foam type extinguishers. Keep containers cool by spraying with water.

6. Accidental release measures

Spills: Clear area of all unprotected / unnecessary people. Wear full protective equipment to prevent skin and eye contact. Contain using sand and/or earth. Prevent runoff into drains or waterways. Can be greatly diluted or carefully neutralized with soda ash, lime, vermuc carbonate and flushed to drain with copious amounts of water. Use absorbent (soil or sand, sawdust, inert material, vermiculite). Collect and hold in suitable containers for waste disposal. Wash spill area down with large amounts of water.

Disposal (After treatment above)

Refer to waste management authority. Empty containers MUST BE decontaminated.

pH Down (50% Citric Acid)

7. Handling and storage

Avoid breathing mist. Prevent contact with eyes, skin or clothing. Keep container tightly closed. Store away from oxidizers, bases. Can be explosive with metal nitrates. Corrosive to metals. Check regularly for leaks.

8. Exposure controls/personal protection

Generally not a hazard when handled carefully and as instructed. However, as a precaution, especially if splashing of liquid is possible, suitable (approved) personal protective equipment appropriate to the task should be worn:

Hand: Use gloves resistant to acids (rubber).

Eyes: Approved chemical safety goggles or face protection. Contact lenses pose a hazard: Soft lenses may absorb irritants, and all contact lenses concentrate irritants. Particles may adhere to contact lenses and cause corneal damage.

Skin: Wear protective overalls buttoned at the wrist and neck (or bib resistant to acids) and impervious footwear (rubber boots). Sleeves of jackets or shirts should be buttoned over the glove wrists; trousers should be worn with the bottoms of legs outside the boots - not tucked in.

Respiration: Use an approved respirator - Seek professional advice.

Note, eye wash fountains and safety showers should be located near any area where large quantities of this product are handled.

Remove contaminated clothing promptly. Keep contaminated clothing in closed containers. Discard or launder before re-wearing.

Inform laundry personnel of contaminants hazards. Do not smoke, eat or drink in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

Engineering controls:

Ensure adequate ventilation and / or local exhaust ventilation where misting can occur to maintain exposure levels below standard.

9. Physical and chemical properties

Appearance: Clear, colourless, slight sugary odour, aqueous solution.

Boiling Point / Melting Point: Data not available

Vapour Pressure: Not applicable

Specific Gravity: 1.19

Flashpoint: Not flammable

Flammability Limits: Not flammable

Solubility in Water: Soluble in all proportions

pH: acidic (pH ~1.7)

Corrosiveness: Attacks most metals.

10. Stability and reactivity

Stable under normal conditions. Store away from oxidizers, bases. Can be explosive with metal nitrates. Corrosive to metals.

11. Toxicological information

Toxicity Data:

Treat symptomatically based on judgment of doctor and individual reactions of patient.

Oral rat LD50: 3 gm/kg; irritation skin rabbit: 500 mg/24H mild; eye rabbit: 750 ug/24H severe.

Carcinogens: Not listed by IARC, USA NTP, or USA OSHA.

For further information: See Section 3 of this MSDS ("Hazards Identification").

12. Ecological information

Prevent product from entering rivers, canals and other waterways: Acidic; nutrient for undesirable algae.

Biodegradable.

Ecotoxicity value: Date not available.

13. Disposal considerations

Observe local legislation.

14. Transport information

Classified as Non Dangerous Good by the criteria of the Australian Dangerous Goods Code (ADG Code 7.3) for Transport by Road and Rail

Not subject to ADR/IATA/IMDG codes.

15. Regulatory information

Poisons schedule: No Poisons Schedule number allocated

Labelling: Irritant

Packaging: No special packaging or labeling requirements.

16. Other information

Contact Points

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DISCLAIMER

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification of further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. All information is as accurate and up to date as possible.