

Material Safety Data Sheet

Hazardous according to criteria of
Worksafe Australia

HY-GEN HOLDINGS PTY LTD T/AS
HYDROPONIC GENERATIONS
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Hy-Gen pH Down

Identification

Product Name: Hy-Gen pH Down
Other Names: Ortho-Phosphoric acid 85%
Product Code: None allocated
UN Number: 1805
Dangerous Goods class & Subsidiary Risk: 8
Packaging Group: 3
Hazchem Code: 2R
Poisons Schedule Number: S5
Use: General laboratory reagent
EEC #: 231-633-2

Physical Description and Properties

Form: Liquid	Upper flammability limit: Not Relevant
Colour: Colourless	Lower flammability: Not Relevant
Odour: Odourless	Ignition temperature: Not Relevant
Boiling point: ~158°C	Log P(o/w): Not Relevant
Melting point: ~21°C	Specific gravity: Not Relevant
Vapour pressure: (25°C) 2.2 mbar	Density: (20°C) 1.71 g/cm ³
Vapour density: Not relevant	
Solubility in Water: Water Soluble (20°C)	

Other information:

Causes burns. Hygroscopic; incompatible with iron/iron-containing compounds, steel, aluminum and their compounds.

Unsuitable working materials:

Iron/iron-containing compounds, steel, aluminum.

Conditions to be avoided:

Strong Heating.

Substances to be avoided:

Bases, metals (Formation of: hydrogen), metallic oxides.

Ingredients	CAS Number	Proportion
Phosphoric acid	7664-38-2	85%
Water	7732-18-5	15%

All constituents are listed in the Australian Inventory of Chemical Substances (AICS).

Safety data sheet for Hy-Gen pH Down

Health Hazard Information

Toxicological information:

Acute toxicity
LD50 (oral, rat) 1530 mg/kg LD50 (dermal, rabbit) 2740mg/kg.

After eye contact:

Conjunctivitis, burns.

After skin contact:

Irritant and caustic effects.

After ingestion:

Burns, strong pain (risk of perforation!), shock, spasms.

Other information:

No other information available.

First Aid Information

Eye contact: Irrigate thoroughly with plenty of water for at least 10 minutes with eyelid held wide open. Immediately summon eye specialist.

Inhalation: Fresh air. Summon doctor.

Skin contact: Wash off with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.

Ingestion: Wash out mouth thoroughly with water and make victim drinks plenty of water, avoid vomiting (risk of perforation!). Immediately summon doctor. Do not attempt to neutralize.

Advice to doctors: Treat symptomatically.

First aid facilities: Safety shower. Eyewash facilities.

Worksafe Information

Exposure standards:	PPM	TWA	mg/m ³	PPM	STEL	mg/m ³
Worksafe Australia:	-		1	-		3

Foreign Exposure limits: OES, Long-term, mg/m³: 1 – orthophosphoric acid.

Safety data sheet for: Hy-Gen pH Down

Precautions for Use

Engineering controls: Procedures for cleaning / absorption: Take up with liquid with liquid-adsorbent material (e.g. Chemizorb^R). Forward for disposal. Clean up affected area. Additional notes: Render harmless: neutralize with diluted sodium hydroxide solution or by throwing on lime, lime sand, or sodium carbonate.

Personal protection

Respirator: Required when vapours/aerosols are generated. Ensure respirator is clean, well fitting and in good working order. All respirators should comply with Australian Standard AS 1716 and be used in accordance with AS 1715.

Gloves: Rubber or plastic.
Other protective equipment: Suitable protective clothing.

Eye protection: Goggles or face-shield.

Special risks: Non-combustible. Hydrogen may form upon contact with metals (danger of explosion!). Use fire-fighting agent appropriate for materials burning in the area.

Suitable extinguishing media: In adaption to materials stored in the immediate neighborhood.

Hazardous decomposition products: Phosphorous oxide

Other precautions: Immediately contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance. Use plastic apron, sleeves, and boots – if handling large quantities

Safe Handling Information

UN Number: 1805

Dangerous Goods class and Subsidiary Risk: 8

Packaging Group: III

Risk: R: 34
Causes burns

Handling:

The acid (mp 21°C), may crystallize on cool storage. Heating to about 50°C liquefies it again. Shake well whilst heating and do not discard any crystals.

Storage:

Tightly closed. Dry. Store in a well-ventilated place. At room temperature (recommendation: +15 to +25°C).

Spillage and disposal:

Wear appropriate protective clothing.

Spread soda ash liberally over the spillage. If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise transfer to container and arrange removal by disposal company. Wash site of spillage thoroughly with water.

For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

Do not allow entering drinking water supplies, wastewater, or soil. Caustic even in diluted form. Harmful effect due to pH shift. Depending on the concentration, phosphorous compounds may contribute to the eutrophication of water supplies.

Chemical residues are generally classified as special waste, and as such are covered by regulations, which vary according to location. Contact your waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty container thoroughly before returning for recycling.

Product:

There are no uniform Australian Regulations for the disposal of chemical or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in Australia through Commonwealth, State, Territory or Local government laws and regulations. We recommend that you contact either the authorities in charge or licensed waste disposal companies which will advise you on how to dispose of special waste.

Packaging:

Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

Fire and explosion:

May evolve toxic fumes in fire.

Other Information

*EC Hazard symbols: C

Risk codes: R: 34
Causes burns.

Safety Codes: S:26-36/37/39-45
In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately (show the label where possible).

*Key
C = Corrosive

Contact point

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Manufacture's Advice

This Material Safety Data Sheet (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 MSDS and consider the information in the context of how the product will be handled and used in the workplace. The use should be considered also in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

This company will not take responsibility for any deliberate miss-use of the product or negligence related to this literature.