



# SAFETY DATA SHEET

According to Safe Work Australia

Revision: 09.01.2023

## 1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name:** HYDROPONIC pH UP**Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** pH adjustment of nutrient solutions**Details of Manufacturer or Importer:**

Growth Technology Pty Ltd  
1-45 Stockdale Road  
O'Connor WA 6163

**Phone Number:** +61 8 9331 3091**Emergency telephone number:** National Poison Information Centre: 13 11 26

## 2 . HAZARDS IDENTIFICATION

**Hazardous Nature:**

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

**Signal Word** Danger**Hazard Statements**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

**Precautionary Statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P330 Rinse mouth.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

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P501

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


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## 3 . COMPOSITION AND INFORMATION ON INGREDIENTS

### Chemical Characterization: Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

### Hazardous Components:

|           |                     |   |     |
|-----------|---------------------|---|-----|
| 1310-58-3 | Potassium hydroxide | Skin Corr. 1A, H314;  Acute Tox. 4, H302 | 50% |
|-----------|---------------------|---|-----|

## 4 . FIRST AID MEASURES

### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

### Skin Contact:

In case of skin contact, remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

### Eye Contact:

In case of eye contact, immediately hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

### Ingestion:

If swallowed, do not induce vomiting. Rinse mouth with water. Give plenty of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

### Symptoms Caused by Exposure:

Inhalation: Causes burning sensation to the respiratory tract, shortness of breath, cough, wheezing, laryngitis, pneumonitis and pulmonary edema.

Skin Contact: Causes severe burns (with delayed tissue destruction), redness and pain.

Eye Contact: Causes eye burns, redness and pain.

Ingestion: Causes severe digestive tract burns with abdominal pain, vomiting and possible death.

## 5 . FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Specific Hazards Arising from the Chemical:

Reacts violently with halogens, nitro compounds, magnesium, azides.

Contact with aluminum, tin and zinc liberates hydrogen gas.

Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts.

### Special Protective Equipment and Precautions for Fire Fighters:

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

Water spray may be used to keep fire exposed containers cool. If water is used, use in abundance to control heat and acid buildup.

## 6 . ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures:

Wear Safe Work Australia approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

### Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

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## Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

## 7 . HANDLING AND STORAGE

### Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

### Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Keep away from water, light metals, alkali metals, metals, organic materials, copper, halogens, nitro compounds, magnesium, azides, aluminum, tin, zinc, nitromethane and other similar nitro compounds. Inspect regularly for damages or leaks.

## 8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure Standards:

#### 1310-58-3 Potassium hydroxide

|     |  |
|-----|--|
| NES | TWA: 2 mg/m <sup>3</sup><br>Peak limitation: 2 mg/m <sup>3</sup> |
|-----|--|

### Engineering Controls:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below the limits.

### Respiratory Protection:

Use a Safe Work Australia approved air-purifying vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

### Skin Protection:

PVC, PVA, nitrile, neoprene, rubber or vinyl gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

### Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

## 9 . PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

|                         |                             |
|-------------------------|-----------------------------|
| <b>Form:</b>            | Clear to hazy, thick liquid |
| <b>Colour:</b>          | Colourless                  |
| <b>Odour:</b>           | Odourless                   |
| <b>Odour Threshold:</b> | Odourless                   |
| <b>pH-Value:</b>        | 13.5                        |

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|   |                           |
|---|---------------------------|
| <b>Melting point/Melting range:</b>         | -29 °C                    |
| <b>Initial Boiling Point/Boiling Range:</b> | 101 °C                    |
| <b>Flash Point:</b>                         | Not applicable            |
| <b>Flammability:</b>                        | Product is not flammable. |
| <b>Auto-ignition Temperature:</b>           | Not applicable            |
| <b>Explosion Limits:</b>                    |                           |
| <b>Lower:</b>                               | Not applicable            |
| <b>Upper:</b>                               | Not applicable            |
| <b>Relative Density:</b>                    | 1.45                      |
| <b>Vapour Density:</b>                      | Not applicable            |
| <b>Solubility in Water:</b>                 | Soluble in water          |
| <b>Viscosity:</b>                           | Slight                    |

## 10 . STABILITY AND REACTIVITY

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of use.

**Conditions to Avoid:** No further relevant information available.

**Incompatible Materials:**

Water, light metals, alkali metals, metals, organic materials, copper, halogens, nitro compounds, magnesium, azides, aluminum, tin, zinc, nitromethane and other similar nitro compounds.

**Hazardous Decomposition Products:** No information available

## 11 . TOXICOLOGICAL INFORMATION

**Toxicity:**

**LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:**

**1310-58-3 Potassium hydroxide**

|      |                  |                 |
|------|------------------|-----------------|
| Oral | LD <sub>50</sub> | 273 mg/kg (rat) |
|------|------------------|-----------------|

**Acute Health Effects**

**Inhalation:**

Causes burning sensation to the respiratory tract, shortness of breath, cough, wheezing, laryngitis, pneumonitis and pulmonary edema.

**Skin:** Causes severe burns (with delayed tissue destruction), redness and pain.

**Eye:** Causes eye burns, redness and pain.

**Ingestion:**

Harmful if swallowed. Causes severe digestive tract burns with abdominal pain, vomiting and possible death.

**Skin Corrosion / Irritation:** Causes severe skin burns.

**Serious Eye Damage / Irritation:** Causes eye damage.

**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.

**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.

**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

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## Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

**Aspiration Hazard:** Based on classification principles, the classification criteria are not met.

**Chronic Health Effects:** No information available

**Existing Conditions Aggravated by Exposure:** No information available

## 12 . ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available

**Aquatic toxicity:** Harmful to aquatic life.

**Persistence and Degradability:** No information available

**Bioaccumulative Potential:** No information available

**Mobility in Soil:** No information available

## 13 . DISPOSAL CONSIDERATIONS

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.

### Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

## 14 . TRANSPORT INFORMATION

|  |                              |
|--|------------------------------|
| UN Number  |                              |
| ADG, IMDG, IATA  | 1814                         |
| Proper Shipping Name                                   |                              |
| ADG, IMDG, IATA  | Potassium Hydroxide solution |
| Dangerous Goods Class                                  |                              |
| ADG Class:   | 8 Corrosive substances.      |
| Packing Group:   |                              |
| ADG, IMDG, IATA  | II                           |
| Hazchem Code:  | 2R                           |
| Special Provisions:                                    | Not applicable               |
| Limited Quantities:                                    | 1L                           |
| Packagings & IBCs - Packing Instruction:               | P001, IBC02                  |
| Packagings & IBCs - Special Packing Provisions:        | Not applicable               |
| Portable Tanks & Bulk Containers - Instructions:       | T7                           |
| Portable Tanks & Bulk Containers - Special Provisions: | TP2                          |

## 15 . REGULATORY INFORMATION

### Australian Inventory of Chemical Substances:

|           |                     |
|-----------|---------------------|
| 7732-18-5 | Water               |
| 1310-58-3 | Potassium hydroxide |

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**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**

Poisons Schedule: 6

### 16 . OTHER INFORMATION

**Creation Date:** 20.02.2015**Revision Date:** 24.02.2019**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

**Disclaimer**

This MSDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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