

Safety Data Sheet

according to WHS Regulations

Printing date 14.09.2021

Revision: 14.09.2021

1 Identification

Product Name: pH Up

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: pH adjustor

Details of Manufacturer or Importer:

Nutrifield Pty Ltd
52 Technology Drive
Sunshine West, VIC 3020

Phone Number: +61 (3) 9315 5800

Emergency telephone number: National Poisons Information Centre: 13 11 26

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

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



Corrosion

Skin Corrosion/Irritation 1A H314 Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation 1 H318 Causes serious eye damage.



Acute Toxicity (Oral) 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 dusts or mists.

P264 Wash thoroughly after handling.

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

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

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

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

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

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

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:**

CAS: 1310-58-3	Potassium hydroxide	40-50%
	☠ Skin Corrosion/Irritation 1A, H314; ⚠ Acute Toxicity (Oral) 4, H302	

4 First Aid Measures

Inhalation:

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

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with large amounts of water using soap or mild detergent for at least 15 minutes. In case of burns, wrap the affected area loosely with a sterilised gauze. Seek immediate medical attention.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water and give large amounts of water to drink. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek immediate medical attention.

Information for Doctor:

Treat symptomatically. In case of inhalation, oxygen supply must be considered. In case of ingestion, endoscopy of the esophagus must be considered. Avoid washing out the stomach.

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation and burns. Symptoms include indigestion, nasal septum disorder, severe pains in the upper respiratory tract, pneumonia, circulatory disturbance, and peritonitis.

Skin Contact: Causes severe skin burns. Symptoms include gelatinisation of skin cells.

Eye Contact: Causes serious eye damage. Symptoms include conjunctival oedema and corneal destruction.

Ingestion: Causes severe burns. Symptoms include severe pains in the oral cavity and oesophagus, vomiting, and diarrhoea. The vomit contains blood. If a patient does not die within 24 hours, they recover for 2-4 days and then suffer from sudden pains, abnormal tetany of the stomach, and a rapid fall in blood pressure indicating oesophagus perforation. In case of esophagostenosis, early symptoms appear within a few weeks but may appear a few years later.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Dry powder, carbon dioxide, water, or general foam. Use water fog or regular foam for larger fires.

Specific Hazards Arising from the Chemical:

Hazardous decomposition products include poisonous and/or corrosive fumes of potassium oxide.

Product is non-flammable.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Prevent run-off from fire fighting entering drains or water courses.

HAZCHEM Code: 2R

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Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Avoid walking through spilled product as it is slippery when spilled. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions:

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

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and neutralise spilled product with weak hydrochloric acid or weak sulphuric acid after diluting with large amounts of water. Absorb spill with sand, earth, vermiculite or some other absorbent material. Avoid using sawdust or cellulose. Collect the spilled material and place into a suitable container for disposal. Provide adequate ventilation and wash spill site afterwards. Use only non-sparking tools.

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. Avoid prolonged or repeated exposure. Always add material to water rather than adding water to material. 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. Contaminated work clothing must not be allowed out of the workplace. 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 in original container, tightly closed when not in use. Inspect regularly for damage or leaks. Keep away from oxidisers such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine, fluorine, etc. Keep away from metals such as aluminium, steel, copper, lead, tin, and zinc. Keep away from acids, acrolein, alcohol, ammonium salt, benzoyl chloride + sodium azide, para-bis(1,2-dibromoethyl)benzene, bromoform, bromoform + cyclic polyethylene oxide, calcium carbide + chlorine, chlorine dioxide, chlorine + hydrogen peroxide, chloroform + methanol, 1,2-dichloroethylene, chlorinated solvent, nitromethane, organics (woolen fabrics, leather, etc.), cyclopentadiene, geranium, glass, halogenated hydrocarbon, nitride, maleic acid anhydride, N-methyl-N-nitrosourea + methylene chloride, trichloro nitric acid, alkane nitrate, nitro benzene + methanol, nitro ethane, orthonitro phenol, nitro propane, N-nitrosomethylurea + N-butylether, phosphorous, nitric acid, peroxi potassium disulphate, potassium peroxodisulphate + water, sugar, tetrachloroethane, 2,2,3,3-propane tetrafluoride, tetrahydrofuran, thorium dioxide, trichloroethylene, 2,4,6-toluene trinitrate + methanol, and O-nitrophenol. Protect from direct sunlight, moisture, excessive heat, and sources of ignition.

8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 1310-58-3 Potassium hydroxide**WES | Peak limitation: 2 mg/m³**Engineering Controls:**

Maintain air concentration below occupational exposure standards, providing adequate ventilation.

Respiratory Protection:

Use a positive-pressure, self-contained breathing apparatus 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

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and 1716 for more information.

Skin Protection:

Rubber, neoprene, or PVC 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, including chemical-resistant coveralls, splash apron, and safety footwear (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:

Form:	Liquid
Colour:	Clear
Odour:	Neutral
Odour Threshold:	No information available
pH-Value:	12.0
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	No information available
Flammability:	Non-flammable
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Density:	No information available
Relative Density:	1.457
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Completely soluble
Partition Coefficient (n-octanol/water):	No information available
Viscosity:	No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions:

Hazardous polymerisation will not occur. Releases hydrogen on contact with metals, which may cause explosions. Actively reacts with O-nitrophenol. If heated with tetrachloroethane or reacted with 1,2-dichloroethylene, a chloroacetylene gas which naturally takes fire is generated. If heated with phosphorous, a phosphine gas which naturally takes fire is generated. Produces heat if in contact with water, alcohol, or acids.

Chemical Stability:

Stable at ambient temperature and under normal conditions of storage and use. Corrosive liquid. Will absorb moisture from the air.

Conditions to Avoid: Protect from direct sunlight, moisture, excessive heat, and sources of ignition.

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Incompatible Materials:

Oxidisers such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine, fluorine, etc. Metals such as aluminium, steel, copper, lead, tin, and zinc. Acids, acrolein, alcohol, ammonium salt, benzoyl chloride + sodium azide, para-bis(1,2-dibromoethyl)benzene, bromoform, bromoform + cyclic polyethylene oxide, calcium carbide + chlorine, chlorine dioxide, chlorine + hydrogen peroxide, chloroform + methanol, 1,2-dichloroethylene, chlorinated solvent, nitromethane, organics (woolen fabrics, leather, etc.), cyclopentadiene, geranium, glass, halogenated hydrocarbon, nitride, maleic acid anhydride, N-methyl-N-nitrosourea + methylene chloride, trichloro nitric acid, alkane nitrate, nitro benzene + methanol, nitro ethane, orthonitro phenol, nitro propane, N-nitrosomethylurea + N-butylether, phosphorous, nitric acid, peroxi potassium disulphate, potassium peroxodisulphate + water, sugar, tetrachloroethane, 2,2,3,3-propane tetraflouride, tetrahydrofuran, thorium dioxide, trichloroethylene, 2,4,6-toluene trinitrate + methanol, and O-nitrophenol.

Hazardous Decomposition Products:

Hazardous decomposition products include hydrogen, chloroacetylene gas, phosphine gas, and poisonous and/or corrosive fumes of potassium oxide.

11 Toxicological Information

Toxicity:**LD50/LC50 Values Relevant for Classification:****CAS: 1310-58-3 Potassium hydroxide**

Oral LD50 273 mg/kg (rat)

Acute Health Effects**Inhalation:**

May cause respiratory irritation and burns. Symptoms include indigestion, nasal septum disorder, severe pains in the upper respiratory tract, pneumonia, circulatory disturbance, and peritonitis.

Skin: Causes severe skin burns. Symptoms include gelatinisation of skin cells.

Eye: Causes serious eye damage. Symptoms include conjunctival oedema and corneal destruction.

Ingestion:

Causes severe burns. Symptoms include severe pains in the oral cavity and oesophagus, vomiting, and diarrhoea. The vomit contains blood. If a patient does not die within 24 hours, they recover for 2-4 days and then suffer from sudden pains, abnormal tetany of the stomach, and a rapid fall in blood pressure indicating oesophagus perforation. In case of esophagostenosis, early symptoms appear within a few weeks but may appear a few years later.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes serious 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.

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 further relevant information available.

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Existing Conditions Aggravated by Exposure:

Persons with pre-existing eye diseases, cutaneous disorders, and allergies may be more susceptible to the effects from this product.

12 Ecological Information

Ecotoxicity:**Aquatic toxicity:**

May be toxic to aquatic organisms, causing long-term adverse effects in the aquatic environment.

CAS: 1310-58-3 Potassium hydroxide

EC50/15 minutes	22 mg/l (bacterial)
LC50/96 h	45.4 mg/l (rainbow trout)
LC50/48 h	40 mg/l (daphnia)

Persistence and Degradability: No data available on finished product.

Bioaccumulative Potential: No data available on finished product.

Mobility in Soil: No data available on finished product.

Other adverse effects: No further relevant 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	UN1814
Proper Shipping Name ADG, IMDG, IATA	POTASSIUM HYDROXIDE SOLUTION
Dangerous Goods Class ADG Class:	8 Corrosive substances.
Subsidiary Risk:	
Packing Group: ADG, IMDG, IATA	II
Marine pollutant:	
EMS Number:	F-A,S-B
Hazchem Code:	2R
Special Provisions:	
Limited Quantities:	1L
Packagings & IBCs - Packing Instruction:	P001, IBC02
Portable Tanks & Bulk Containers - Instructions:	T7
Portable Tanks & Bulk Containers - Special Provisions:	TP2

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15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All ingredients are listed.

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

Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 14.09.2021**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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

LC50: Lethal concentration, 50 percent

LD50: 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)

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

Skin Corrosion/Irritation 1A: Skin corrosion/irritation – Category 1A

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - July 2020"

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