



Safety Data Sheet
Essentials LAB pH+ (50%)

Date: 01.05.2023
Revision Date: N/A
Version: 2

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

1.1 Product Identifier

Substance or preparation trade name: Essentials LAB pH+ (50%)

REACH Registered number(s): N/A

CAS number: 1310-58-3

EINECS number: 215-181-3

Synonyms: Potassium hydroxide, caustic potash.

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

Use of substance/mixture: Potassium Hydroxide solution used to adjust pH of hydroponic nutrient feed solutions after nutrient has been added.

1.3 Company/undertaking name and address:

Manufacturer Name: HydroGarden Ltd
Unit 2, Progress Way
Binley
Coventry
CV3 2NT
Tel: +44(0)2476 651500
E-mail : info@hydrogarden.co.uk

EU Economic Operator: Grow in AG
Wallenroder Str.7-9
13435 Berlin
Germany.
E-mail: info@hydrogarden.co.uk

1.4 Emergency telephone number:

Emergency telephone number: +44 (0) 2476651500

Opening hours: 8.30am -5.00pm Mon-Thurs, 8.30am - 4.00pm Fri.

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

2.1.1 classification according to Regulation (EC) No 1272/2008 (CLP):

Corrosive to metals (Category 1), H290

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Category 1A), H314

2.1.2 Classification according to Directive 67/548/EEC (See SECTION 16 for full text of risk phrases)

C Corrosive R35

Xn Harmful R22

2.1.3 Additional information:

For full text of R-phrases and Hazard and EU hazard statements see SECTION 16.

2.2 Label Elements

Label elements under CLP:

Hazard Statements:

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

Signal Words: Danger

Hazard Pictograms: N/A

DANGER

**Precautionary Statements:**

P264: Wash thoroughly after handling.

P260: Do not breathe fumes

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

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

P301 +310: IF SWALLOWED: Rinse mouth, DO NOT INDUCE VOMITING.

P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

P363: Wash contaminated clothing before reuse

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 or doctor/ physician.

P304 + 340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P321: Specific treatment (see First Aid Measures on this label)

P405: Store locked up

P501: Dispose of contents/container to an approved waste disposal site in accordance with local and national regulations.

2.3 Other Hazards

Supplemental hazard information: Not applicable

SECTION 3: Composition/information on ingredients**3.1 Substances**

Substance trade name: Essentials LAB pH+. 50% Potassium Hydroxide.

Name	Cas No	EC No	Reach Registration No.	% (weight)	Classification according to 67/548/EEC	Classification according to Regulation EC

						No 1278/2008 (CLP)
Potassium Hydroxide	1310-58-3	215-181-3	/	40-45 %	C Corrosive R35 Xn Harmful R22	Corrosive to metals (Category 1), H290 Acute toxicity, Oral (Category 4), H302 Skin corrosion (Category 1A), H314

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General notes:

Following Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. IMMEDIATELY IRRIGATE WITH CLEAN WATER for at least 10 minutes. If irritation persists seek medical attention.

Following Eye contact: IMMEDIATELY IRRIGATE WITH EYEWASH OR CLEAN WATER FOR 15 MINS. Cold water must be used. Seek medical aid.

Following Ingestion: SEEK MEDICAL ATTENTION DISPLAY LABEL WHERE POSSIBLE. Never give anything by mouth to unconscious person. Do not induce vomiting.

Self –protection of the first aider: Wear gloves to avoid skin contact whilst treating patient. Avoid inhalation of chemical.

4.2 Most important symptoms and effects, both acute and delayed

Delayed/immediate effects:

Skin contact: Severe burns may occur.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Severe burns to digestive tract. Ingestion may prove fatal.

Inhalation: May cause burns/ irritation to the respiratory system.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

4.3 Indication of any immediate medical attention/special treatment

Immediate/special treatment: See first aid treatment in section 4.1. Speed is of the essence when dealing with highly corrosive chemicals.

SECTION 5: Fire fighting measures

5.1 Extinguishing media

Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: not applicable

5.2 Special hazards arising from the substance or mixture

Exposure Hazards: Potassium oxides may be produced in a fire.

5.3 Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 for non-emergency personnel:

Personal Precautions: ensure gloves and goggles are worn during clean up.

Protective equipment: gloves and goggles.

Emergency procedures: do not allow the liquid to enter drains or water courses.

6.1.2 for emergency responders:

Advice for fire fighters: none

6.2 Environmental precautions

Environmental precautions: do not allow the liquid to enter drains or water courses.

6.3 Methods and material for containment and cleaning up

6.3.1 Methods for spill containment: Store in a bunded area, cover nearby drains.

6.3.2 Clean-up procedures: Absorb onto sand, earth or other suitable absorbent material.

6.4 References to other sections

Reference to other sections: refer to section 8 of SDS.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures: wear gloves and goggles in case of splashes. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Measures to prevent fire: not applicable

Measures to prevent aerosol and dust generation: not applicable

Measures to protect the environment: do not allow to enter drains or water courses.

Advice on general occupational hygiene: prevent contact with eyes, skin and clothing. Wash hands after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool place and away from direct sunlight. Keep out of reach of children. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Suitable packaging: store in original packaging only.

Storage class: Corrosive Storage.

Further information on storage conditions: sensitive to carbon dioxide.

7.3 Specific end use(s)

Recommendations: Potassium Hydroxide solution used to adjust pH of hydroponic nutrient feed solutions after nutrient has been added. Use a pH meter, test strips or indicator solution to determine the pH of the solution. Add small amounts of pH+ or pH- to the nutrient tank. Mix thoroughly, re-test and repeat as necessary

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Employ good industrial hygiene practice.

Hazardous Ingredients: Potassium Hydroxide

Workplace exposure limits: STEL 2 mg/m³ UK (EH40 WEL – Workplace)

8.2 Exposure controls

8.2.1 Engineering measures: Ensure there is sufficient ventilation of the area.

Mixture related measures to prevent exposure during identified uses: n/a

8.2.2 Personal protective equipment:

Respiratory protection: not applicable

Hand Protection: glove (alkali resistant)

Eye protection: safety glasses or goggles

Skin protection: gloves/long sleeves

8.2.3 Environmental exposure controls: do not allow spills to enter drains. Use bunding or store away from drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: clear

State: liquid
Odour: unknown.
pH: >11.5
Melting/freezing point: unknown
Boiling point: unknown
Flash point: unknown
Evaporation rate: unknown
Flammability: not flammable
Vapour pressure: unknown
Vapour density: unknown
Relative density: 1.515 g/cm³
Viscosity: unknown
Oxidising properties: unknown
Explosive properties: unknown
Solubility in water: soluble

9.2 Other information

Other information: None

SECTION 10: Stability and reactivity

10.1 Reactivity

Reactivity: no data available.

10.2 Chemical stability

Chemical stability: Under storage at normal ambient temperatures (7-30°C) the product is stable.

10.3 Possibility of hazardous reactions

Hazardous reactions: No data available.

10.4 Conditions to avoid

Conditions to avoid: Low or high temperatures may impair the product. Store between 5-25°C and out of direct sunlight.

10.5 Incompatible materials

Materials to avoid: Strong oxidizing agents, Acids, Metals, Chlorinated hydrocarbons.

10.6 Hazardous decomposition products

Hazardous decomposition products: Potassium oxides. In combustion emits corrosive and irritating fumes.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute Toxicity: no toxic effects

Irritation: not toxic, irritation may occur

Corrosivity: no toxic effects, highly corrosive

Sensitization: not toxic, irritation may occur

Repeated dose toxicity: no toxic effects

Mutagenicity: no toxic effects

Carcinogenicity: no toxic effects

Reproductive toxicity: not a known reproductive toxin.

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicity values: no specific information available

12.2 Persistence and degradability

Persistence and degradability: biologically degradable

12.3 Bioaccumulative potential

Bioaccumulative potential: ingredients not bioaccumulative

12.4 Mobility in soil

Mobility: no specific data available

12.5 Results of PBT and vPvB assessment

PBT identification: This substance is not identified as a PBT or vPvB substance.

12.6 Other adverse effects

Other adverse effects: The high pH will have an adverse effect on the aquatic environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Product/packaging disposal: Dispose of packaging and contents in accordance with local/national regulations

Waste codes/waste designations according to LoW: None

13.1.2 Waste treatment – relevant information: dispose of at local waste disposal site in accordance with local regulations.

13.1.2 Sewage disposal – relevant information: waste should not be released to sewers.

13.1.4 Other disposal recommendations: none

SECTION 14: Transport information

14.1 UN number

UN number: UN1814

14.2 UN proper shipping name

Shipping name: POTASSIUM HYDROXIDE SOLUTION

14.3 Transport hazard class(es)

Transport class: 8

14.4 Packing group

Packing group: II

14.5 Environmental hazards

Environmentally hazardous: Not classified as environmentally hazardous.

Marine Pollutant: Not a marine pollutant

14.6 Special precautions for user

Special precautions: none

Tunnel code: E

Transport category: 2

SECTION 15: Regulatory information

15.1 Safety, health and Environmental regulations/legislation specific for the mixture

EU regulations: not applicable

Authorisations and/or restrictions on use: none

Specific regulations: not applicable

15.2 Chemical safety assessment

Chemical safety assessment: a COSHH assessment has been carried out for the substance or mixture by the supplier

SECTION 16: Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010 and EC Regulation No 1272/2008.

MSDS for Potassium Hydroxide 45% Solution from Sigma Aldrich,
Product Number: 03564.

*Indicates text in the SDS which has been changed since the last revision

Phrases used in Section 2 and Section 3: none.

R22: Harmful if swallowed.

R35: Causes severe burns

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

Precautionary Statements:

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Legal Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall only be used as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.