




# Safety Data Sheet

## pH Up Premium pH Alkalizer

### SECTION 1. IDENTIFICATION

|                                      |                                                                                                                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Identifier</b>            | <b>pH Up</b>                                                                                                                                                                      |
| <b>Other Means of Identification</b> | Inorganic minerals in aqueous solution.                                                                                                                                           |
| <b>Recommended Use</b>               | Hydroponic systems                                                                                                                                                                |
| <b>Restrictions on Use</b>           | <i>Not Applicable</i>                                                                                                                                                             |
| <b>Initial Supplier Identifier</b>   | <b>Emerald Harvest</b><br>1399 Corporate Center Parkway<br>Santa Rosa, California<br>95407 USA<br>Telephone: +1 866-325-8235                                                      |
| <b>Emergency Telephone Number</b>    | <b>24 Hour Emergency Phone Number(s):</b><br><b>INFOTRAC: 1-800-535-5053 (North America)</b><br><b>INFOTRAC: 1-352-323-3500 (International)</b><br><b>Contract number: 112430</b> |

### SECTION 2. HAZARD IDENTIFICATION

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GHS Classification</b>        | <b>CORROSIVE TO METALS - CATEGORY 1</b><br><b>SKIN CORROSION/IRRITATION - CATEGORY 1</b><br><b>SERIOUS EYE DAMAGE/IRRITATION - CATEGORY 1</b><br><b>ACUTE TOXICITY - ORAL - CATEGORY 4</b>                                                                                                                                                                                                                         |
| <b>Label Elements Pictograms</b> |                                                                                                                                                                                                                                                                                                                                 |
| <b>Signal Word</b>               | <b>DANGER</b>                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Hazard Statements</b>         | H290 – May be corrosive to metals.<br>H314 – Causes severe skin burns and eye damage.<br>H302 – Harmful if swallowed.                                                                                                                                                                                                                                                                                              |
| <b>Precautionary Statements</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Prevention:</b>               | P234 – Keep only in original packaging.<br>P260 – Do not breathe dusts or mists.<br>P264 – Wash hands and affected areas thoroughly after handling.<br>P270 – Do not eat, drink or smoke when using this product.<br>P271 – Use only outdoors or in a well-ventilated area.<br>P280 – Wear protective gloves/protective clothing/eye protection/face protection.                                                   |
| <b>Response:</b>                 | P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.<br>P303 + P361 + P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.<br>P363 – Wash contaminated clothing before reuse.<br>P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

|                      |                                                                                                                                                                                                   |
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|                      | P304 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.<br>P310 – Immediately call a POISON CENTER/doctor.<br>P390 – Absorb spillage to prevent material-damage. |
| <b>Storage:</b>      | P405 – Store locked up.                                                                                                                                                                           |
| <b>Disposal:</b>     | P501 – Dispose of contents/container to an approved waste disposal plant.                                                                                                                         |
| <b>Other Hazards</b> | <i>Not Applicable</i>                                                                                                                                                                             |
| <b>NOTES</b>         |                                                                                                                                                                                                   |

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                                                    | CAS No.               | Concentration | Common name / Synonyms |
|------------------------------------------------------------------|-----------------------|---------------|------------------------|
| Potassium Hydroxide                                              | 1310-58-3             | 30 - 35%      | Caustic Potash         |
| Non-hazardous ingredients or those below disclosure requirements | <i>Not applicable</i> | 65 - 70%      | <i>Not Applicable</i>  |

|              |  |
|--------------|--|
| <b>Notes</b> |  |
|--------------|--|

### SECTION 4. FIRST-AID MEASURES

|                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>                                             | If breathed in, move person into fresh air. Seek medical attention immediately.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Skin Contact</b>                                           | Rinse with plenty of water for at least 20 minutes. Rinse with dilute acetic acid (vinegar). Take off contaminated clothing and shoes immediately. Get medical attention immediately.                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Eye Contact</b>                                            | Rinse with plenty of water for at least 20 minutes. Remove contact lenses if easily possible. Refer immediately for medical attention. Continue to rinse during transport. Protect unharmed eye. Keep eye wide open while rinsing.                                                                                                                                                                                                                                                                                                                                                          |
| <b>Ingestion</b>                                              | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. One small glass of water may be given. Get medical attention immediately.                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Most Important Symptoms and Effects, Acute and Delayed</b> | Acute:<br>INHALATION: Inhalation of mists or aerosols may cause burning of the mucous membranes in the upper respiratory tract. Phlegm production will occur and cause coughing, moderate to severe irritation, and difficulty breathing.<br>INGESTION: Causes severe stomach pains, nausea, vomiting, difficulty swallowing.<br>SKIN CONTACT: Causes pain, irritation, redness, possible blistering.<br>EYE CONTACT: Causes serious eye irritation or damage. Severe cases may cause permanent blindness.<br>Chronic:<br>SKIN CONTACT: Repeated exposure can result in contact dermatitis. |
| <b>Immediate Medical Attention and Special Treatment</b>      | Treat symptomatically. Wear protective gloves when administering first aid. IN ALL CASES CONSULT A DOCTOR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

### SECTION 5. FIRE-FIGHTING MEASURES

|                                                           |                                                                          |
|-----------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Extinguishing Media</b>                                |                                                                          |
| <b>Suitable Extinguishing Media</b>                       | Not flammable, use extinguishing media appropriate for surrounding fire. |
| <b>Unsuitable Extinguishing Media</b>                     | <i>Not Applicable</i>                                                    |
| <b>Flammability classification (OSHA 29 CFR 1910.106)</b> | Not flammable.                                                           |

|                                                                       |                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazardous Combustion Products</b>                                  | Sulfur oxides, phosphorus oxides. May produce corrosive and/or toxic fumes.                                                                                                                                                                                               |
| <b>Specific Hazards Arising from the Product</b>                      | Product is corrosive and may react with metals to evolve flammable hydrogen gas. Containers may explode when heated.                                                                                                                                                      |
| <b>Special Protective Equipment and Precautions for Fire-Fighters</b> | Fight fire from as far a distance as possible. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece. Move containers from fire area if safe to do so. Cool affected containers with water to prevent rupture. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautions, Protective Equipment, and Emergency Procedures</b> | Implement spill control plan. All persons dealing with the clean-up should wear the appropriate personal protective equipment. Do not touch spilled product. Ensure adequate ventilation. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.                                                                                                                                                                                        |
| <b>Methods for Containment and Cleaning Up</b>                              | Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Ventilate area of release. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into an appropriate corrosion resistant container for later disposal (see Section 13). Neutralize product with dilute acetic acid. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required. |

## SECTION 7. HANDLING AND STORAGE

|                                      |                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for Safe Handling</b> | Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep containers closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous. |
| <b>Conditions for Safe Storage</b>   | Store locked up in a cool, dry, well ventilated area, away from incompatibles. Inspect periodically for damage or leaks. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep in original container.                                        |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

| Chemical Name       | ACGIH® TLV®                   | NIOSH REL                     |
|---------------------|-------------------------------|-------------------------------|
| Potassium Hydroxide | 2 mg/m <sup>3</sup> (Ceiling) | 2 mg/m <sup>3</sup> (Ceiling) |

|                                         |                                                                                                                                                                      |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Notes</b>                            | *Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.           |
| <b>Appropriate Engineering Controls</b> | Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.                                                           |
| <b>Individual Protection Measures</b>   |                                                                                                                                                                      |
| <b>Eye/Face Protection</b>              | Eye protection is required. Chemical safety goggles are recommended. Wearing contact lenses is not recommended.                                                      |
| <b>Skin Protection</b>                  | Gloves impervious to the material are recommended. Advice should be sought from glove suppliers. Depending on conditions of use, an impervious apron should be worn. |
| <b>Respiratory Protection</b>           | Not required under normal conditions of use. Do not breathe concentrated product.                                                                                    |
| <b>Other</b>                            | An eyewash station and safety shower should be made available in the immediate working area.                                                                         |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                                    |                         |                                                                |                                             |
|----------------------------------------------------|-------------------------|----------------------------------------------------------------|---------------------------------------------|
| <b>Appearance</b>                                  | Clear liquid            | <b>Relative Density (water = 1)</b>                            | 10.57 lb/gal at 68°F<br>(1.27 kg/L at 20°C) |
| <b>Odour</b>                                       | Odorless                | <b>Solubility in Water</b>                                     | Soluble                                     |
| <b>Odour Threshold</b>                             | <i>Not Available</i>    | <b>Solubility in Other Liquids</b>                             | <i>Not Available</i>                        |
| <b>pH</b>                                          | 12                      | <b>Partition Coefficient,<br/>n-Octanol / Water (Log Kow)</b>  | <i>Not Available</i>                        |
| <b>Melting Point and<br/>Freezing Point</b>        | -28.8°C (-19.8°F)       | <b>Auto-ignition Temperature</b>                               | <i>Not Available</i>                        |
| <b>Initial Boiling Point and<br/>Boiling Range</b> | <i>Not Available</i>    | <b>Decomposition<br/>Temperature</b>                           | <i>Not Available</i>                        |
| <b>Flash Point</b>                                 | None up to 100°C (PMCC) | <b>Viscosity</b>                                               | <i>Not Available</i>                        |
| <b>Evaporation Rate</b>                            | <i>Not Available</i>    | <b>Flammability (solid, gas)</b>                               | <i>Not Applicable (Liquid)</i>              |
| <b>Vapour Density<br/>(air = 1)</b>                | <i>Not Available</i>    | <b>Upper and Lower<br/>Flammability or Explosive<br/>Limit</b> | <i>Not Applicable</i>                       |
| <b>Vapour Pressure</b>                             | <i>Not Available</i>    | <b>Sensitivity to Static/Impact</b>                            | Not Sensitive                               |

## SECTION 10. STABILITY AND REACTIVITY

|                                               |                                                                                               |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                             | Reacts exothermically with all acids. Slowly dissolves glass.                                 |
| <b>Chemical Stability</b>                     | Stable under normal conditions.                                                               |
| <b>Possibility of Hazardous<br/>Reactions</b> | Not expected.                                                                                 |
| <b>Conditions to Avoid</b>                    | Avoid contact with incompatible materials.                                                    |
| <b>Incompatible Materials</b>                 | Strong oxidizing agents, acids. Sensitive metals.                                             |
| <b>Hazardous<br/>Decomposition Products</b>   | On combustion, forms toxic fumes. Attacks many metals which produces flammable/explosive gas. |

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation     Skin contact     Eye contact     Ingestion

|                                            |                                                                                                                            |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Acute Toxicity</b>                      |                                                                                                                            |
| <b>LC50 (inhalation)</b>                   | <i>Not Available</i>                                                                                                       |
| <b>LD50 (oral)</b>                         | Potassium Hydroxide - 273 mg/kg (Rat)                                                                                      |
| <b>LD50 (dermal)</b>                       | <i>Not Available</i>                                                                                                       |
| <b>Notes</b>                               | Acutely toxic by oral exposures (Harmful).                                                                                 |
| <b>Skin Corrosion / Irritation</b>         | Redness. Pain. Serious skin burns. Blisters.                                                                               |
| <b>Serious Eye Damage /<br/>Irritation</b> | Redness. Pain. Blurred vision. Severe burns.                                                                               |
| <b>Inhalation</b>                          | When mists are inhaled: Cough. Sore throat. Burning sensation. Shortness of breath.                                        |
| <b>Ingestion</b>                           | Abdominal pain. Burns in mouth and throat. Burning sensation in the throat and chest. Nausea. Vomiting. Shock or collapse. |
| <b>STOT (Specific Target Organ)</b>        | May irritate upper respiratory tract.                                                                                      |

|                                                                  |                                                                          |
|------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Toxicity) - Single Exposure</b>                               |                                                                          |
| <b>Aspiration Hazard</b>                                         | Not reported.                                                            |
| <b>STOT (Specific Target Organ Toxicity) - Repeated Exposure</b> | May cause dermatitis (not classified).                                   |
| <b>Respiratory and/or Skin Sensitization</b>                     | Not known to be a sensitizer.                                            |
| <b>Carcinogenicity</b>                                           | IARC reports inadequate evidence for classification as human carcinogen. |
| <b>Notes</b>                                                     | Target Organs: Eyes, skin, respiratory system.                           |
| <b>Reproductive Toxicity</b>                                     |                                                                          |
| <b>Development of Offspring</b>                                  | Not reported.                                                            |
| <b>Sexual Function and Fertility</b>                             | Not reported.                                                            |
| <b>Effects on or via Lactation</b>                               | Not reported.                                                            |
| <b>Germ Cell Mutagenicity</b>                                    | Not expected to be a mutagen.                                            |
| <b>Interactive Effects</b>                                       | Not reported.                                                            |

## SECTION 12. ECOLOGICAL INFORMATION

|                                      |                                                                                                             |                |                           |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| <b>Ecotoxicity</b>                   | This substance may be hazardous to the environment. Special attention should be given to aquatic organisms. |                |                           |
|                                      | <b>Ingredient</b>                                                                                           | <b>Species</b> | <b>LC/EC<sub>50</sub></b> |
|                                      | Potassium Hydroxide                                                                                         | Mosquito Fish  | LC50 80 mg/L (96h)        |
| <b>Persistence and Degradability</b> | <i>Not Available</i>                                                                                        |                |                           |
| <b>Bioaccumulative Potential</b>     | Not expected to bioaccumulate.                                                                              |                |                           |
| <b>Mobility in Soil</b>              | <i>Not Available</i>                                                                                        |                |                           |
| <b>Other Adverse Effects</b>         | <i>Not Available</i>                                                                                        |                |                           |

## SECTION 13. DISPOSAL CONSIDERATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal Methods</b> | Canadian Environmental Protection Act: All ingredients are listed in the DSL.<br>Dispose of in accordance with all federal, provincial/state, and local regulations.<br>Consult with your local supplier for additional information.                                                                                                                                               |
| <b>RCRA</b>             | If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies. |

## SECTION 14. TRANSPORT INFORMATION

| Regulation               | UN No. | Proper Shipping Name         | Technical Name (for N.O.S. entry) | Transport Hazard Class(es) | Packing Group |
|--------------------------|--------|------------------------------|-----------------------------------|----------------------------|---------------|
| Canadian TDG Regulations | UN1814 | POTASSIUM HYDROXIDE SOLUTION | <i>Not Applicable</i>             | 8                          | II            |
| 49 CFR/DOT               | UN1814 | POTASSIUM HYDROXIDE SOLUTION | <i>Not Applicable</i>             | 8                          | II            |
| IATA Regulations         | UN1814 | POTASSIUM HYDROXIDE SOLUTION | <i>Not Applicable</i>             | 8                          | II            |
| IMDG Code                | UN1814 | POTASSIUM HYDROXIDE SOLUTION | <i>Not Applicable</i>             | 8                          | II            |
| Note:                    |        |                              |                                   |                            |               |
| <b>Notes:</b>            |        |                              |                                   |                            |               |

## SECTION 15. REGULATORY INFORMATION

| US Federal Information                                                            |            |                |                                                   |                                                                      |                                                               |                          |
|-----------------------------------------------------------------------------------|------------|----------------|---------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------|--------------------------|
| Components listed below are present on the following U.S. Federal chemical lists: |            |                |                                                   |                                                                      |                                                               |                          |
| Ingredients                                                                       | CAS Number | TSCA Inventory | CERCLA Reportable Quantity (RQ) (40 CFR 117.302): | SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355: | SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical |                          |
|                                                                                   |            |                |                                                   |                                                                      | Toxic Chemical                                                | De minimus Concentration |
| Potassium Hydroxide                                                               | 1310-58-3  | Yes            | 1000 lbs                                          | No                                                                   | No                                                            | No                       |

|                                                     |                                                                                                          |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Safety, Health and Environmental Regulations</b> | Canadian Environmental Protection Act (CEPA):<br>All components of this product are on the Canadian DSL. |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------|

| NFPA Ratings | Hazard or Risk Scale (0 = minimal, 4 = Significant) | HMIS Ratings     | Hazard or Risk Scale (0 = minimal, 4 = Significant)  |
|--------------|-----------------------------------------------------|------------------|------------------------------------------------------|
| Health       | 3                                                   | Health           | 3                                                    |
| Flammability | 0                                                   | Flammability     | 0                                                    |
| Instability  | 1                                                   | Physical Hazards | 0                                                    |
| Special      | 0                                                   | Notes            | H - Splash goggles, gloves, apron, vapor respirator. |

## SECTION 16. OTHER INFORMATION

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date of Creation</b>        | April 17, 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Date of Latest Revision</b> | October 22, 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Disclaimer</b>              | This Safety Data Sheet (SDS) was prepared by iHazmat Regulatory Ltd., using information provided by the above supplier. To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. |

*\*SDS compliant with WHMIS 2015 and OSHA HAZCOM 2012*