

SAFETY DATA SHEET

Last updated: 30 May 2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Quantum H
Other Names:	Plant Doctor Quantum H
Product Type:	Liquid Humic Acid
Chemical family:	Complex change acids containing carboxylic and phenolic groups C ₁₈₇ H ₁₈₆ O ₈₉ N ₉ S ₁
Recommended Use:	Horticultural soil nutrient
Restrictions on use:	None known
HS Code:	38089990

Manufacturer:	Plant Doctor Rx Pty Ltd T/A Agtech Natural Resources 8/19 Expo Ct, Ashmore, QLD, 4214, Australia Ph: 1300 385 842 (Monday to Friday: 8.00am – 4.00pm) admin@agtechglobal.com.au	
Emergency Phone:	Poisons Information Centre	13 11 26
	EPA for large scale spills	1300 372 842

2. HAZARDS IDENTIFICATION

GHS Classification: (1272/2008/EC, CLP)		
Physical:	Health:	Environmental:
Not Hazardous	Eye Irritant Category 2 Skin Irritant Category 2	Not Hazardous

GHS Label Elements:

Warning!

Contains: Humic Acid and Potassium Hydroxide



Statement of Hazard	Precautionary Statements
H315 Causes skin irritation. H319 Causes serious eye irritation.	P264 Wash thoroughly after handling. P280 Wear protective gloves, eye protection, and faceprotection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical attention. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P332 + P313 If skin irritation occurs: Get medical attention. P362 Take off contaminated clothing and wash before reuse.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Humic Acid Solution	Proprietary	4%
Potassium Hydroxide	1310-58-3	0.25%

4. FIRST AID MEASURES

Eye: Immediately flush eyes with plenty of water for several minutes while holding the eyelids apart. Remove contact lenses, if present and easy to do. Get medical attention if irritation persists.

Skin: Remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Get medical attention if irritation occurs and persists. Launder clothing before re-use.

Ingestion: Do not induce vomiting unless directed to do so by a medical professional. Rinse mouth with water and give one glass of water to drink. Get medical attention if symptoms develop.

Inhalation: Remove victim to fresh air. Get medical attention if symptoms occur and persist.

Most important Symptoms: May cause moderate eye and skin irritation. Inhalation of mists may cause mucous membrane and respiratory irritation.

Indication of immediate medical attention/special treatment: Immediate medical attention should not be required.

5. FIRE FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Non-flammable

Specific Hazards arising from the chemical: None known. Hazardous decomposition materials include oxides of carbon and unknown materials. Potassium hydroxide may react with metals to liberate flammable hydrogen gas.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Aqueous solutions may cause surfaces to be extremely slippery and cause a slip hazard.

Explosion Data (sensitivity to mechanical impact or static discharge): None known.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Avoid contact with the eyes. Avoid prolonged skin contact. Wear appropriate protective clothing. Aqueous solutions may cause surfaces to be extremely slippery and cause a slip hazard.

Methods and Materials for Containment and Cleaning Up: Contain and collect free liquid where possible. Neutralize small spills and residues and collect using an inert absorbent material and place in appropriate containers for disposal. Prevent spill from entering sewers and water courses. Report releases as required by local, state and federal authorities.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Avoid breathing vapors. Keep containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled.

Do not reuse containers. Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage, Including Any Incompatibilities: Store in a cool, well-ventilated area away from heat and incompatible materials. Incompatible with Iron based products.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:	
Humic Acid Solution	None Established
Potassium Hydroxide	2 mg/m ³ Ceiling ACGIH TLV

Engineering Controls: Protect from splashes.

Respiratory Protection: Respiratory protection is not normally needed. In operations where exposures are excessive or symptoms occur, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin Protection: Wear impervious gloves made of Neoprene, Nitrile, Butyl or PVC to prevent prolonged skin contact.

Eye Protection: Chemical safety glasses with side shields or goggles should be worn where splashing is possible.

Other: Impervious coveralls, apron and boots as needed to avoid contact. Suitable washing facilities should be available in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour: brown liquid	
Physical State: Liquid	Odour Threshold: Not determined
Vapor Density: Not determined	Initial Boiling Point/Range: Not determined
Solubility In Water: Dispersible.	Vapor Pressure: Not determined.
Relative Density: 1.004-1.07 (water=1)	Evaporation Rate: Not determined
Melting/Freezing Point: Not available.	pH: 8-9
VOC Content: Not determined.	Octanol/Water Coefficient: Not determined
Solubility: Soluble in water.	Decomposition Temperature: Not determined
Viscosity: Not determined	Flammability (solid, gas): Not applicable
Flashpoint: Not available.	Autoignition Temperature: Not applicable
Flammable Limits: LEL: Not applicable	UEL: Not applicable

10. STABILITY AND REACTIVITY

Reactivity: Will coagulate with Iron (Fe)

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: Potassium hydroxide may react with metals to liberate flammable hydrogen gas.

Conditions to Avoid: Avoid extreme heat or freezing temperatures. Store away from metals and in original container.

Incompatible Materials: Metals and strong oxidizing agents.

Hazardous Decomposition Products: Oxides of carbon and unknown materials.

11. TOXICOLOGICAL INFORMATION

Eye: May cause moderate to severe irritation with pain and tearing.

Skin: May cause irritation. Prolonged exposure may cause irritation, dermatitis, or defatting of skin tissues.

Ingestion: Ingestion may cause gastrointestinal irritation, abdominal pain, nausea, vomiting and diarrhea.

Inhalation: May cause irritation of upper respiratory tract.

Chronic: No data available

Sensitization: This material is not known to cause sensitization.

Carcinogenicity: None of the components present are listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, or OSHA.

Germ Cell Mutagenicity: No data currently available.

Reproductive Toxicity: No data available

Numerical Measures of Toxicity:

Calculated ATE_{mix}: Oral LD50 >5000 mg/kg

Humic Acid Solution: No data available

Potassium Hydroxide: Oral rat LD50- 333 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Humic Acid Solution: No data available

Potassium Hydroxide: 96 hr LC50 Mosquito fish - 80mg/L

Persistence and Degradability: Not data available.

Bioaccumulative Potential: Not data available.

Mobility in Soil: Known to extract heavy metals

Other Adverse Effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local and national environmental regulations.

14. TRANSPORT INFORMATION

DOT Hazardous Materials Description: Not regulated

IMDG Shipping Description: Not regulated

IATA Shipping Description: Not regulated

15. REGULATORY INFORMATION

CERCLA 103 Reportable Quantity: This product has a Reportable Quantity (RQ) of 100,000 lbs. (based on the RQ for Potassium Hydroxide of 1,000 lbs at 1%). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

15 REGULATORY INFORMATION continued

Hazard Category for Section 311/312: Refer to Section 2 for OSHA Hazard Classification.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

INTERNATIONAL CHEMICAL INVENTORY STATUS:

United States TSCA: All the components are listed.

16. OTHER INFORMATION

NFPA Rating: Health = 2

Flammability = 0

Instability = 0

HMIS Rating: Health = 2

Flammability = 0

Physical Hazard = 0

Revision Summary:

08/10/2020: V.1

NOTICE

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Agtech shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.