

SAFETY DATA SHEET

Last updated: 30 May 2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Flowers, Fruits and Roots
Other Names:	Plant Doctor Flowers Fruits and Roots
Product Type:	Liquid potassium fertiliser
Chemical family:	Blended product undetermined
Recommended Use:	Horticultural soil nutrient
Restrictions on use:	None known
HS Code:	None known

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: Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition).

GHS Label Elements:

Warning!



Contains: Dipotassium Hydrogen Phosphate 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
Proprietary Humic Acid Solution	unknown	10%
Proprietary Dipotassium Hydrogen Phosphate blend	Contains 7758-11-4 / 57-13-6 / 7732-18-5	90%

4. FIRST AID MEASURES

Eye: Immediately flush eyes with plenty of water for 15 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. Treat symptomatically.

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 & mists. 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.

Do not mix with pesticides.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines: No Australian Exposure Standard available

Engineering Controls: Protect from splashes. Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. Where mists are generated in an enclosed area a local exhaust ventilation system may be needed.

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 with a slight urea odour.

Physical State: Liquid

Odour Threshold: Not determined

Vapor Density: Not determined

Initial Boiling Point/Range: >100°C

Solubility In Water: Dispersible.

Vapor Pressure: The water component will release water vapour

Relative Density: not available

Evaporation Rate: Not determined

Melting/Freezing Point: Not available.

pH: 9-10.5

VOC Content: Not determined.

Octanol/Water Coefficient: Not determined

Solubility: 100% 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

Specific Gravity: 1.36 at 20°C

NPK: 9-7-19

10. STABILITY AND REACTIVITY

Reactivity: Will coagulate with Iron (Fe).

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: May react with metals to liberate flammable hydrogengas.

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

Incompatible Materials: Oxidising Agents; Strong Acids; Strong Bases (release Ammonia). Over time, the product may be corrosive to steel, cast iron and non-ferrous metals

Hazardous Decomposition Products: Decomposes on overheating/fire emitting toxic compounds such as Oxides of Phosphorus (POx) and Oxides of Nitrogen (NOx), and Carbon Monoxide

Hazardous polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

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

Skin: Will cause drying. 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: no data available

12. ECOLOGICAL INFORMATION

This substance is unlikely to be harmful to aquatic organisms. Fertilisers may cause rapid plant growth which may cause algal blooms. Avoid contaminating waterways. No ecological problems are expected when the product is handled with due care and attention.

See below for Ecotoxicological Data on the main ingredients in this product as if each one is at 100%.

Ecotoxicity:

Humic Acid Solution: Not known to have harmful effects.

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

Dipotassium Hydrogen Phosphate (as 100%): Acute Aquatic Fish Toxicity: LC0 (L.idus, 48hrs) : 900 mg/L approx
Depending on the concentration, phosphates may contribute to the eutrophication of water supplies.

Urea (as 100%): Acute Aquatic Fish Toxicity Fish: LC50 (L.idus, 96hrs): >6810 mg/L

Acute Aquatic Toxicity EC5 (Daphnia, Algeal, Bacteria): >10000 mg/L

Octanol Water Partition Co-efficient Log Pow: -1.59 (No bioaccumulation is expected as Log Pow is <1)

Persistence and Degradability: Not data available for ingredients other than Urea: Biodegradation: 96% in 16 days (Method OECD 302 B)

Bioaccumulative Potential: Not data available.

Mobility in Soil: Not data available.

Other Adverse Effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local and national environmental regulations. Advise its slip hazard nature. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an EPA approved waste facility. If incinerated the facility must have appropriate scrubbing facilities to remove Oxides of Nitrogen (NOx) and Oxides of Phosphorus (POx)

Processing, use or contamination of this product may change the waste management options.

The unclean container must also be handled as hazardous waste until cleaned.

14. TRANSPORT INFORMATION

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code); nor by air according to the IACO (IATA Regulations), or by sea according to the IMO (IMDG Code). DOT Hazardous Materials Description: Not regulated

IMDG Shipping Description: Not regulated

IATA Shipping Description: Not regulated

UN Number: Not Dangerous Goods

15. REGULATORY INFORMATION

Not a Hazardous Chemical to the Australian GHS Criteria.

Not Dangerous Goods. Not a Scheduled Poison.

AICIS - Aust. Inventory of Industrial Chemicals: All ingredients are on the AIC.

APVMA Approval No: Not required.

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

Revision Summary:

30/05/2023: V1

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.

