

SAFETY DATA SHEET

Bud Start 0-2-1

SECTION 1: IDENTIFICATION OF SUBSTANCE / MIXTURE

Product name: Bud Start
Fertilizer formula: 0-2-1
Product type: Liquid
Product usage: Hydroponics
Restrictions on use: n/a
Initial Supplier: Future Harvest Plantlife Products
Emergency Telephone Number: 250-491-0255

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance to Regulation(EC) No. 1272/2008 (CLP): Not classified

Classification according to Directive 67/548/EEC (DSD) or 1999/45/EC(DPD): Not classified

Classification according to 29 CFR 1910.1200 (OSHA HCS): Not classified

2.2 Label elements

Labeling in accordance with Regulation 1272/2008 (CLP)

Hazard pictograms: Not required

Signal word: Not required Hazard statement(s): Not required

Precautionary Statement(s): Not required

Labelling in accordance with 67/548/EEC as amended

Hazard symbol(s): Not required

Risk phrase(s): Not required

Safety phrase(s): Not required

Labeling in accordance with Regulation 29 CFR 1910.1200 (OSHA HCS)

Hazard pictograms: Not required

Signal word: Not required

Hazard statement(s): Not required

Precautionary Statements: Not required

2.3 Other hazard

Substance meets the criteria for BBT according to Regulation (EC) No. 1907/2006, Annex XIII: Not applicable

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII: Not applicable

Other hazard which do not result in classification: Not applicable

SECTION 3: COMPOSITION / IDENTIFICATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Other Names
Monopotassium Phosphate	7778-77-0	5-10%	MKP Potassium Phosphate Monobasic

Note: There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in section 8.

SECTION 4: FIRST-AID MEASURES

4.1 Description of first aid measures

Eyes contact: In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Get medical attention if irritation occurs.

Inhalation: Remove the victim from site of exposure to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting. If victim is conscious, wash mouth thoroughly with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Dusts may cause coughing and sneezing. Ingestion of large quantities may cause gastrointestinal irritation, vomiting and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Not available

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Not suitable: Not available

5.2 Special hazards arising from the substance or mixture

Non-combustible.

Hazardous thermal decomposition products: Under fire - oxides of phosphorous, oxides of potassium.

5.3 Advice for firefighters

Move containers from fire area if possible to do so without risk. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Ventilate area of spill.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 13 for additional waste treatment information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Minimize dust generation and accumulation. Do not breathe dust. Avoid contact with skin and eyes. Wash thoroughly after handling.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information measures.

7.2 Conditions for safe storage, including any incompatibilities

Store and use away from heat, sparks, open flame or any other ignition source. Avoid contact with combustible materials. Prevent moisture pick-up in handling and storage.

Packaging materials recommended: Use original container.

7.3 Specific use(s):

Not available

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits: None of the components have assigned exposure limits.

8.2 Appropriate engineering controls No data available.

8.3 Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles). Skin protection

Hand protection: Chemical resistant gloves Other: Wear suitable protective clothing.

Respiratory protection: In case of inadequate ventilation, use respiratory protection.

Hygiene measures: Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Purple-Red Liquid

Odour: Odorless

Odour threshold: Odorless

pH: 4.2 to 4.9 [Acidic]

Initial boiling point/boiling range: > 100°C

Flash point: Not applicable

Evaporation rate: Not volatile (butyl acetate=1)

Flammability: Not flammable

Upper/lower flammability or explosive limits:

Vapor pressure: 4.5×10^{-15} Pa at 25°C- Not Volatile

Vapor density: Not volatile Relative Density: 1.00 at $25.1 \pm 0.5^\circ\text{C}$ (water=1)

Solubility(ies):

Water solubility- Miscible

Partition coefficient Octanol/Water: The product is more soluble in water;

$\log(\text{octanol/water}) < 1$

Auto-ignition temperature: Not applicable

Decomposition temperature: 175°C (347°F) - release of water of constitution, becomes polyphosphates

Viscosity: Not viscous

Explosive properties: Not explosive

Oxidizing properties: Not oxidizer

9.2 Other information

Melting point/Freezing point: $< 0^\circ\text{C}$

Molecular weight: 136.09

VOC: Not an organic compound

Specific Gravity: 1.05 ± 0.05

Miscibility: Miscible

Fat solubility: Not applicable

Gas group: Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable under normal handling and storage conditions described in Section 7. Reacts with acids and alkalis.

10.3 Possibility of hazardous reactions

Hazardous reactions are not expected, under normal conditions of storage and use.

10.4 Conditions to avoid

Extreme humidity. Excess heat.

10.5 Incompatible materials

Strong oxidizing agents and strong bases.

10.6 Hazardous decomposition products

Other decomposition products: Not available In event of fire: see section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on likely routes of exposure

Ingestion: Irritating. May cause nausea, stomach pain and vomiting.

Inhalation: May cause irritation to the respiratory system.

Skin contact: Causes mild skin irritation.

Eye contact: Causes eye irritation.

11.2 Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product: LD 50 (Mouse): Approximate 1,700 mg/kg (Monopotassium Phosphate)

Dermal Product: No data available.

Inhalation Product: No data available.

Repeated dose toxicity Product: No data available.

Skin corrosion/irritation Product: Causes mild skin irritation.

Serious eye damage/eye irritation Product: Causes eye irritation.

Respiratory or skin sensitization Product: Not a skin sensitizer.

Carcinogenicity Product: This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): No carcinogenic components identified

Germ cell mutagenicity

In vitro Product: No mutagenic components identified

In vivo Product: No mutagenic components identified

Reproductive toxicity Product: No components toxic to reproduction

Specific target organ toxicity - single exposure Product: None known

Specific target organ toxicity - repeated exposure Product: None known

Aspiration hazard Product: Not classified
Other effects: None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity (Monopotassium phosphate)

Toxicity to fish: LC50/96h (Rainbow trout) > 100 mg/L

Toxicity to crustaceans: EC50/48h (Daphnia magna) > 100 mg/L

Toxicity to algae: EC50/75h (algae) > 100 mg/L EC50 (48 h): 300 mg/L

12.2 Persistence and Degradability

Not applicable, since inorganic substance.

12.3 Bioaccumulative potential

The potential for bioaccumulation consider to be minimal.

12.4 Mobility in soil

Soil/water partition coefficient (Koc): N/A

Mobility: Soluble in water.

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other adverse effects

Substances which have an unfavorable influence on the oxygen balance and can be measured using parameters such as BOD, COD, etc.: Absent

Substances, which contribute to eutrophication: Phosphates, 2% as P₂O₅

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Waste must be disposed of in accordance with federal, state, provincial and local environmental control regulations.

Packing: Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated.
IMDG: Not regulated.
IATA: Not regulated.

SECTION 15: REGULATORY INFORMATION

TSCA inventory: Listed
Australia AICS: On or in compliance with the inventory
Canada DSL Inventory List: On or in compliance with the inventory
EINECS, ELINCS or NLP: On or in compliance with the inventory
Japan (ENCS) List: On or in compliance with the inventory
China Inv. Existing Chemical Substances: Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI): On or in compliance with the inventory
Canada NDSL Inventory: Not in compliance with the inventory.
Philippines PICCS: On or in compliance with the inventory
US TSCA Inventory: On or in compliance with the inventory
New Zealand Inventory of Chemicals: On or in compliance with the inventory
Japan ISHL Listing: On or in compliance with the inventory
Japan Pharmacopoeia Listing: Not in compliance with the inventory.

SECTION 16: OTHER INFORMATION

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