



## Material Safety Data Sheet

### 1. MANUFACTURER AND PRODUCT IDENTIFICATION

**Manufacturer's Cage Code:** BMRO-03  
**Manufacturer's Name:** AgriLife  
**Address:** 154/A5, SVCIE, IDA Bollaram, Telangana, India – 502325  
  
**Supplier's Name:** AgriLife LLC  
**Supplier's Address:** 2207 Concord Pike #523, Wilmington, DE 19803  
**Supplier's Telephone No:** 1 855 527 7508  
  
**Product Name:** BioMantra Root+  
**Product Description:** Root treatment  
**Recommended Use:** Agricultural product to be used as root treatment free from Chemicals

NFPA Hazard Ratings: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe

Health=1	Fire=1	Reactivity=0
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### 2. COMPOSITION INFORMATION

#### Active Ingredients

Name	CAS	% ge by weight
<i>Paenibacillus azotofixans</i> (4 x 10 <sup>7</sup> cfu/g)	NA	0.5%
<i>Bacillus megaterium</i> (4 x 10 <sup>7</sup> cfu/g)	NA	0.5%
<i>Bacillus subtilis</i> (4 x 10 <sup>8</sup> cfu/g)	NA	0.5%
<i>Glomus mosseae</i> (1 x 10 <sup>2</sup> cfu/g)	NA	0.5%
Humic acids (from Potassium Humate)	1415-93-6	24 %
Seaweed extract (from <i>Sargassum weightii</i> )	9005-38-3	25 %
Ascorbic acid	50-81-7	16 %
Thiamine (Vitamin B1)	67-03-8	0.1 %
Dextrose (microbial food)	50-99-7	32.9 %

### 3. HAZARDS IDENTIFICATION

Emergency Overview

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As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Rated on the 1 to 10 scale as

<b>Health rating:</b>	1 – slight
<b>Flammability rating:</b>	1 – slight
<b>Reactivity rating:</b>	0 – Minimal
<b>Contact rating:</b>	1 – slight
<b>Lab protective equipment's:</b>	Goggles, Lab Coat
<b>Storage color code:</b>	Orange (General Storage)
<b>Potential Health Effect</b>	
<b>Inhalation:</b>	No adverse health effect expected from inhalation
<b>Ingestion:</b>	No adverse health effect expected from inhalation
<b>Skin contact:</b>	No adverse health effect expected
<b>Eye contact:</b>	No adverse health effect expected
<b>Chronic exposure:</b>	No information found
<b>Aggravation of pre-existing condition:</b>	No information found

#### 4. FIRST AID MEASURES

**Inhalation:** Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:** If large volumes were swallowed, give water to drink, and get medical advice.

**Skin contact:** Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye contact:** Wash thoroughly with running water. Get medical advice if irritation develops.

#### 5. FIRE FIGHTING MEASURES

**Fire:** As the most organic solids, fire is possible at elevated temperature or by contact with an ignition source

**Explosion:** Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**Fire Extinguishing Media:** Water spray, dry chemical, appropriate foam, or carbon dioxide.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

#### 6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

#### 7. HANDLING AND STORAGE

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Airborne Exposure Limits:** None established.

**Ventilation System:** Not expected to require any special ventilation.

**Personal Respirators (NIOSH Approved):** Not expected to require personal respirator usage.

**Skin Protection:** Wear protective gloves and clean body-covering clothing.

**Eye Protection:** Use chemical safety goggles.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Description:** White or Cream colored crystalline or granular, powder, Characteristic odor, sweet in taste.

**Odor:** Characteristic odor

<b>Solubility:</b>	Highly Soluble in Water, Sparingly soluble in alcohol.
<b>% Moisture at 105°C:</b>	7.5 to 9.5
<b>% Sulphated ash (Max):</b>	0.1
<b>Acidity for 5 grams (Max):</b>	0.125ml of 0.1N NaOH
<b>Specific rotation 10% w/v at 25°C:</b>	+52.50to 53.20
<b>Dextrins&amp; less soluble sugars:</b>	passes the test as per IP/BP/USP
<b>Chlorides:</b>	Not more than 125 ppm
<b>Arsenic:</b>	Not more than 1 ppm
<b>Heavymetal:</b>	Not more than 5 ppm
<b>Sulphates:</b>	Not more than 200 ppm
<b>pH (0.5 M Aque. Solution):</b>	5.80- 6.0
<b>Melting Point:</b>	ca 148 – 155° C

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:** Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Strong oxidizers.

**Conditions to Avoid:** Heat, moisture, ignition and incompatibles.

## 11. TOXICOLOGICAL INFORMATION

Acute effects

- May be harmful by inhalation, ingestion, or skin absorption.
- May cause irritation.

Anhydrous Dextrose Toxicity Data

**Oral-rat LD<sub>50</sub>:** 25800 mg/kg

**LD i.v. in rabbit:** 35 g/kg.

## 12. ECOLOGICAL INFORMATION

**Environmental Fate:** No information found.

**Environmental Toxicity:** No information found.

## 13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. TRANSPORT INFORMATION

Not regulated.

## 15. REGULATORY INFORMATION

No special information is available.

## 16. OTHER INFORMATION

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