

MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	AgRhizome Suma Grow Inside	Manufactured For:	BIORIL, LLC
Chemical Name:	<i>Beneficial Microbes in Humic Acid (Humate)</i>		
Chemical Description:	Liquid form with suspended beneficial microbes (Humic acid (12% by A & L West Method/3%by CDFA Method) , 1% Beneficial Microbes in pH buffered water)		
1.2 Manufactured By:	Bio Soil Enhancers, Inc. 1161 James Street Hattiesburg MS 39401	Emergency Telephone Number	601-582-4000
		Telephone Number for Information	601-582-4000
		Date Prepared	06/24/13

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components (Specific Chemical)

Identity: Common Name	(CAS #)	OSHA PEL	ACGIH TLV	Other Limits Recommended
Humic and Fulvic Acids	0	N/A	N/A	N/A

SECTION 3: HAZARDS IDENTIFICATION

Dark brown liquid. May cause eye and skin irritation. May be harmful if ingested. Carbon monoxide fumes may form from burning. Not D.O.T. regulated. NEPA: Health:1 Reactivity:0 Flammability:0 Environment:0 (0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

(0=Insignificant)

EMERGENCY OVERVIEW: This material is not a 'health hazard' or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration Hazard Communication Standard, 20 CFR 1910.1200. Suspended microbes are not pathogens.

3.1 POTENTIAL HEALTH EFFECTS

EYE: Contact with the eyes may cause irritation.

SKIN CONTACT: Prolonged or repeated contact may cause skin irritation if not washed off affected areas.

SKIN ABSORPTION: Absorption is unlikely to occur.

INGESTION: Ingestion of product solution may cause irritation of the gastrointestinal tract including nausea, vomiting and diarrhea. **INHALATION:** Inhalation of product may cause irritation of the nose, throat and respiratory tract.

CHRONIC EFFECTS/CARCINOGENICITY: Not listed as a carcinogen by NTP, IARC or OSHA.

SECTION 4: FIRST AID MEASURES

4.1 EYES: Flush immediately with plenty of water for at least 15 minutes while holding eyelids apart to ensure complete irrigation of all eye and lid tissue. If irritation occurs, seek medical attention.

4.2 SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes under a safety shower. Get medical attention if irritation persists.

4.3 INGESTION: If conscious and alert, administer water or milk to dilute, and then induce vomiting. Call Poison Control Center or physician immediately. Do not give anything by mouth to an unconscious person.

4.4 INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth and get medical attention. If heart has stopped beating, external heart massage should be applied. Obtain medical attention.

4.5 Suspended microbes are intended for use as a soil inoculum and do not contain any disease causing organisms. However upon ingestion or accidental entry into body please seek immediate medical attention.

SECTION 5: FIREFIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

FLASHPOINT: Not flammable METHOD USED: Closed Cup/NONCOMBUSTIBLE

5.2 FLAMMABLE LIMITS: LFL: NA UFL: NA

5.3 EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical, or water fog.

5.4 FIRE & EXPLOSIVE HAZARDS: Not Combustible

5.5 FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid smoke inhalation.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 SMALL RELEASES: Contain product. Reuse material if uncontaminated. If contaminated, sweep, shovel or vacuum material into a suitable container for proper disposal. Do not contaminate water supplies. Use safety precautions and protective clothing (gloves/goggles) while cleaning up.

6.2 WASTE DISPOSAL METHOD: This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING: Avoid contact with eyes. Always use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with the skin.

7.2 STORAGE: Store in original container only in a cool, well-ventilated, dry place. Ideal storage temperature is 10°C (50°F) to 30°C (85°F). Do not store near food or feeds or sources of heat.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 RESPIRATORY PROTECTION: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/moist respirator (such as 3M#8710). Ventilation: Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminate. Avoid opening the containers in closed rooms.

8.2 SKIN PROTECTION: Neoprene rubber groves. Wash contaminated clothing prior to reuse.

8.3 EYE PROTECTION: Chemical goggles and a full face shield. DO NOT WEAR CONTACT LENSES.

8.4 EXPOSURE GUIDELINES:

	STEL	OSHA
TWA	N/A	N/A
ACGIH	N/A	N/A

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE	Dark Brown to Black
9.2 ODOR:	Slightly musty
9.3 VAPOR PRESSURE:	~ 17mm Hg
9.4 VAPOR DENSITY:	Not available
9.5 SOLUBILITY IN WATER:	Completely Miscible
9.6 SPECIFIC GRAVITY (H ₂ O = 1):	~1.01 to 1.03
9.7 MELTING POINT:	> 300°C
9.8 pH:	6.7 to 7.3
9.9 VOLATILE:	Not Available
9.10 COLOR:	Dark Brown to Black
9.11 WEIGHT PER GALLON:	Not Applicable
9.12 STORAGE LIFE AT 70° F:	~ 1 Year
9.13 PH-21C:	Not Available
9.15 VISCOSITY:	Not Available
9.16 FREEZING POINT:	Not Available
9.17 EVAPORATION RATE:	Not Available
9.18 BOILING POINT:	Not Available

SECTION 10: STABILITY AND REACTIVITY

- 10.1 STABILITY: Stable
- 10.2 HAZARDOUS POLYMERIZATION: Will not occur.
- 10.3 HAZARDOUS DECOMPOSITION PRODUCTS: At extreme temperatures, carbon monoxide and oxidation product may be evolved.
- 10.4 INCOMPATIBILITY: Not compatible with strong acids, fungicides and toxic herbicides.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 ORAL: May cause stomach cramps and/or nausea, Vomiting and Diarrhea. Seek medical attention.
- 11.2 DERMAL: May cause slight irritation, especially from prolonged exposure. May cause redness.
- 11.3 INHALATION: None expected but inhalation may cause mild irritation of nasal mucous membranes. Provide ventilation and seek medical attention.
- 11.4 CHRONIC/CARCINOGENICITY: Data not available
- 11.5 TERATOLOGY: Data not available
- 11.6 REPRODUCTION: Data not available
- 11.7 MUTAGENICITY: Data not available
- 11.8 EYES: May cause temporary eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1 Alga/Lemna Growth Inhibition: Not known.
- 12.2 Toxicity to Fish and Invertebrates: Not known
- 12.3 Toxicity to Plants: Not known
- 12.4 Toxicity in Birds: Not known

SECTION 13: DISPOSAL CONSIDERATIONS

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment wash waters. Dispose of waste effluents in accordance with state and local waste disposal regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal.

SECTION 14: TRANSPORTATION INFORMATION

D.O.T. Not DOT Regulated.

Other Shipping Description: Compound Soil Inoculum (Manufactured Fertilizer) - Liquid

SECTION 15: REGULATORY INFORMATION

15.1 CERCLA: None

15.2 SARA TITLE III, Section 313 Toxic Chemicals: None

SECTION 16: OTHER INFORMATION

This information was developed from information on the constituent materials. No warranty is expressed or implied regarding the completeness or continuing accuracy of the information contained herein, and Plant Food Company, Inc. disclaims all liability for reliance thereon. The user should satisfy himself/herself that he has all current data relevant to his particular use.