

1. Product and Company Identification

Material name	Bio-Carbon66
Version #	1.1
Issue date	7-20-2012
Revision date	8-06-2023
Supersedes date	07-20-2012
Chemical description	BIOBASED ingredients 48% BIOBASED Carbon Mixture
CAS #	
Product use	Applied to Field Crops, Fruits, Greenhouse Plants, Indoor Grows, Hydroponic Plants, Trees, Shrubs, Grass .
Manufacturer/Supplier	AMP Surfactants Inc. 618 Washburn Road. Melbourne, FL 32935 ampsurfactantsinc@gmail.com Contact Person: Jim Shellenback
Telephone number	(321) 557-6219
Emergency	Emergency Telephone Number (321) 557-6219

2. Hazards Identification

Physical state	Liquid.
Appearance	Slightly viscous, amber-colored liquid.
Emergency overview	Health injuries are not known or expected under normal use.
OSHA regulatory status	This product is not hazardous according to OSHA 29CFR 1910.1200.
Potential health effects	
Routes of exposure	Eye contact. Inhalation.
Eyes	May cause eye irritation on direct contact.
Skin	Prolonged skin contact may cause irritation.
Inhalation	Inhalation of high concentrations may result in transient irritation and coughing.
Ingestion	Ingestion may cause irritation and malaise.
Target organs	Eyes. Skin. Respiratory system.
Chronic effects	Prolonged contact may cause dryness of the skin.
Signs and symptoms	Irritant effects. Irritation of eyes and mucous membranes.
Potential environmental effects	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments Product Ingredients: food grade non-ionic surfactants, organic alcohol, horticultural oils, fatty acids, amino acids, seaweed, humic acid, molasses, inert ingredients

4. First Aid Measures

First aid procedures	
Eye contact	Flush thoroughly with water. If irritation occurs, get medical assistance.
Skin contact	Wash with soap and water. Get medical attention if irritation develops and persists.
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion	Not expected to be harmful in amounts likely to be ingested by accident.
Notes to physician	Treat symptomatically.
General advice	Get medical attention if any discomfort develops.

Bio-Carbon66

CPH SDS NA

909654 Version #: 1.1

Revision date: 08-06-2023

Issue date: 07-20-2012

5. Fire Fighting Measures

Flammable properties	The product is non-combustible.
Extinguishing media	
Suitable extinguishing media	Dry chemical, foam, carbon dioxide.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Specific hazards arising from the chemical

Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterized.

Protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Large Spills:	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.
Small Spills:	Absorb spillage with non-combustible, absorbent material. Wash area with soap and water.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid contact with eyes and prolonged skin contact. Observe good industrial hygiene practices.
Storage	Store in a cool and well-ventilated place. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Engineering controls	Provide adequate ventilation and minimize the risk of inhalation of vapors and mists.
Personal protective equipment	
Eye / face protection	If risk of splashing, wear safety goggles or face shield.
Skin protection	Wear protective gloves. Rubber, neoprene or PVC gloves are recommended. Suitable gloves can be recommended by the glove supplier. Wear suitable protective clothing.
Respiratory protection	No personal respiratory protective equipment normally required. Seek advice from local supervisor.
General hygiene considerations	Wash hands after handling. Handle in accordance with good industrial hygiene and safety practice. Follow up on any medical surveillance requirements.

9. Physical & Chemical Properties

Appearance	Slightly viscous, amber colored liquid.
Physical state	Liquid.
Form	Slightly viscous.
Color	amber.
Odor	Faint.
Odor threshold	Not available.
pH	9.7
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	214.4 °F (101.3 °C)
Melting point/Freezing point	Not available.
Solubility (water)	Complete.
Specific gravity	Not available.
Flash point	> 200 °F (> 93.3 °C)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
VOC	172 g/l
Bulk density	Not applicable.
Other data	
Explosive properties	Not explosive.
Flash point class	Combustible III B
Oxidizing properties	Not oxidizing.

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	High temperatures. Exposure to light. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides.
Possibility of hazardous reactions	Hazardous reactions do not occur.

11. Toxicological Information

Sensitization	No test data available for the product.
Acute effects	May form vapors or oil mists during mechanical action or at elevated temperatures which may be irritating to respiratory tract.
Local effects	Contact with eyes may cause irritation.
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Carcinogenicity	Not classified by IARC, ACGIH, NTP or OSHA.
Epidemiology	No epidemiological data is available for this product.
Mutagenicity	There is no data to indicate that any component present at greater than 0.1% may present a risk.
Reproductive effects	Contains no ingredient listed as toxic to reproduction
Further information	No other specific acute or chronic health impact noted.

12. Ecological Information

Ecotoxicity	Oil spills are generally hazardous to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic toxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	The product is readily biodegradable.
Bioaccumulation / Accumulation	Not available.
Mobility in environmental media	The product is miscible with water. May spread in water systems.

13. Disposal Considerations

Waste codes	Not regulated.
Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Follow all applicable MARPOL requirements for disposal of waste, when transporting materials by vessel.

14. Transport Information

DOT	Not regulated as a hazardous material by DOT.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
TDG	Not regulated as dangerous goods.
GHS:	HS1302.19.0100

15. Regulatory Information

US Federal Regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
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TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard categories

Immediate Hazard -	No
Delayed Hazard -	No
Fire Hazard -	No
Pressure Hazard -	No
Reactivity Hazard -	No

Section 302 extremely hazardous substance (40CFR 355, Appendix A)

No

Section 311/312 (40 CFR 370)

No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Not controlled

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

WHMIS status Non-controlled
Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

US. Massachusetts RTK - Substance List
Not regulated.

US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
Not regulated.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Other information **ACGIH:** American Conference of Industrial Hygienists.
IARC: International Agency for Research on Cancer.
NTP: National Toxicology Program.
OSHA: Occupational Safety and Health Administration.
WHMIS: Workplace Hazardous Materials Information System.
GHS: Global Harmonizing System

HMIS® ratings	NFPA ratings	GHS ratings
Health: 0	Health: 0	Health: 5
Flammability: 0	Flammability: 0	Flammability: 5
Physical hazard: 0	Instability: 0	Physical hazard: 5

Note: Under the new GHS rating system, the number 5 represents "Minimal Hazard" (see below)



Disclaimer: The information in the sheet was written based on the best knowledge and experience currently available.

Safety Data Sheet

Issue Date: 07-Jan-2019

Revision Date: 18-Jan-2019

Version 1

1. IDENTIFICATION

Product identifier

Product Name CleanKelp

Other means of identification

SDS # BCO-004

UPC Code 841401125066, 841401125073, 841401125080, 841401125097

Recommended use of the chemical and restrictions on use

Recommended Use Plant Fertilizer.

Details of the supplier of the safety data sheet

Supplier Address

Bloom City, LLC
630 W. Nickerson St. #C
Seattle, WA 98119
Ph: 206-535-2450
<http://www.bloom.city>

Emergency telephone number

Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Brown liquid

Physical state Liquid

Odor Seaweed

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product. This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Proprietary acid	Proprietary	Proprietary

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
Inhalation	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician/poison center if individual's condition declines or if symptoms persist.
Ingestion	Rinse mouth. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms	Mild eye, skin, and/or respiratory irritation. Prolonged or repeated skin contact may cause irritation. May cause nausea, vomiting, stomach ache, and diarrhea.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Product is not flammable.

Hazardous combustion products Carbon oxides.

Explosion Data**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment as required.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so. Contain and soak up with inert absorbent material.

Methods for Clean-Up Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Strong oxidizing agents. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Proprietary acid	-	15 mg / m3 (Total)	-

Appropriate engineering controls

Engineering Controls Maintain eye wash fountain and quick-drench facilities in work area.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear eye/face protection. Wear safety glasses with side shields (or goggles). Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Wear protective gloves and protective clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection If necessary, wear a MSHA/NIOSH-approved respirator. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Seaweed
Appearance	Brown liquid	Odor Threshold	Not determined
Color	Brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	3.5	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Relative Density	Not determined	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY**Reactivity**

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible materials

Strong oxidizing agents. Strong bases.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Eye Contact May cause temporary irritation on eye contact.

Skin Contact Prolonged contact may cause redness and irritation.

Inhalation	May cause irritation if inhaled.
Ingestion	May cause nausea, vomiting, stomach ache, and diarrhea.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Proprietary acid	= 3 g/kg (Rat) = 3000 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Please see section 4 of this SDS for symptoms.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
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Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document Values exceed classification criteria.

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Proprietary acid		1516: 96 h Lepomis macrochirus mg/L LC50 static	120: 72 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Proprietary acid	-1.72

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION**International Inventories**

Chemical name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Proprietary acid	X	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

NFPA**Health Hazards**

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS**Health Hazards**

Not determined

Flammability

Not determined

Physical hazards

Not determined

Personal Protection

Not determined

Issue Date: 07-Jan-2019

Revision Date: 18-Jan-2019

Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET Humic Acid 70

1. Identification

Product name Humic Acid 70
Product code FMHUM
Chemical Description Granular Humic and fulvic acid derived from Leonardite

Recommended use Agriculture
Manufacturer & Distributor information
Corporate Office Plant Food Company, Inc.
38 Hightstown-Cranbury Station Road
Cranbury, NJ 08512 United States
Information: 1-609-448-0935
Telephone www.plantfoodco.com
Website pfc@plantfoodco.com
E-mail
Contact person SDS-Regulatory Department

Emergency phone number 1-800-424-9300 CCN725928
Call CHEMTREC Day or Night Within USA and Canada or +1 703-527-3887 (collect calls accepted)
Other Countries 1-609-448-0935

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 4
Serious eye damage/eye irritation Category 2A
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
OSHA defined hazards Not classified.
Label elements



Signal word **Warning**
Hazard statement Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation.
Precautionary statement
Prevention Use only outdoors or in a well-ventilated area. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection.
Response If swallowed: Call a poison center/doctor if you feel unwell. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. If eye irritation persists: Get medical advice/attention.
Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixture	Synonym	Common Name	CAS Number	EINECS No.
Leonardite	Humic Acid		1415-93-6	215-809-6

SAFETY DATA SHEET Humic Acid 70

4. First-aid measures

Inhalation	Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start CPR. Obtain medical attention.
Skin contact	Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Remove contact lenses, if present and easy to do. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. If victim is conscious, give two to four glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. In case of shortness of breath, give oxygen. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

5. Fire-fighting measures

Flammable Properties:	NFPA: Health - 0 Flammability - 0 Reactivity - 0
Suitable extinguishing media	Not flammable, use media suitable for combustibles involved in fire.
Unsuitable extinguishing media	Not applicable.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Heating (flames) of closed or sealed containers may cause violent rupture of container due to thermal expansion of compressed gases. Heating causes release of ammonia vapors. Vapors are irritating to eyes, skin and respiratory tract. Heating to dryness may cause the release of ammonia, ammonium sulfate, sulfur and oxides of sulfur (respiratory hazard).
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk. Keep containers/storage vessels in fire area cooled with water spray.
Fire-fighting equipment/instructions	
Specific methods	Move container from fire area if it can be done without risk.
General fire hazards	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep people away from any upwind of spill/leak. Keep out of low areas. Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling	Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for ingredient(s).
Appropriate engineering controls	Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear eye/face protection. Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	For prolonged or repeated skin contact use suitable protective gloves.
Other	Wear suitable protective clothing. Wash contaminated clothing prior to reuse.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SAFETY DATA SHEET Humic Acid 70

9. Physical and chemical properties

Appearance (physical state, color, etc)	Black granular
Odor	slightly musty
Odor threshold	Not available.
pH	
Melting point/freezing point	Not applicable
Initial boiling point and boiling range	Not applicable
Flash point	Not available.
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	
Solubility	Not available.
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Data not available
Viscosity	
Other information	
Shelf life	> 2 years

10. Stability and reactivity

Reactivity	Avoid interaction with heat (flames), oxidizers, acids or alkalis (see details below in this section).
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	None known
Conditions to avoid	Temperatures above 120°F (49°C) and below 32°F (0°C).
Hazardous decomposition products	

11. Toxicological information

Information on likely routes of exposure	
Oral	Not determined
Inhalation	Not determined
Skin contact	Not determined
Eye contact	Not determined
Chronic/Carcinogenicity:	Not listed in NTP, IARC or by OSHA.
Teratology:	Data not available.
Reproduction:	Data not available.
Mutagenicity:	Data not available.

SAFETY DATA SHEET Humic Acid 70

12. Ecological information

Ecotoxicity	Data not available.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	This product is not bioaccumulative.
Mobility in soil	Not determined
Other adverse effects	Not determined

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

15. Regulatory information

US federal regulations	This product meets the criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification CFR 707, Subpt. D)	(40) Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.
SARA 304 Emergency release notification	Not regulated.
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazardous substance	Not listed.
Other federal regulations	
OSHA Specifically Regulated Substances CFR 1910.1001-1050)	(29) Not listed.
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated.
Safe Drinking Water Act (SDWA)	Not regulated.

16. Other information, including date of preparation or last revision

Issue date	6/1/2015
Revision date	
Version #	1
Disclaimer	While the information contained herein is presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or information set forth, or that the products, or information may be used without infringing the intellectual property rights of others. In no case shall the information provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the information furnished by our company hereunder is given gratis and we assume no obligation or liability for the information given or results obtained, all such being given and accepted at your risk.
Revision Information	Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name:	Blackstrap Molasses		
Common Name:	Molasses		
Chemical Description:	Inverted syrup from the juice of sugar cane		
1.2 Manufactured For:	Plant Food Company, Inc. 38 Hightstown-Cranbury Station Road Cranbury, NJ 08512	Emergency Telephone Number Telephone Number for Information	609-448-0935 609-448-0935
		Date Prepared	11/1/2011

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components (Specific Chemical)

Identity: Common Name	(CAS #)	OSHA PEL	ACGIH TLV	Other Limits Recommended
This product is a mixture--no specific CAS number	#REF!	N/A	N/A	N/A

SECTION 3: HAZARDS IDENTIFICATION

Black/brown liquid with typical odor.

NEPA: Health:0 Reactivity:0 Flammability:1 Environment:0 (0=Insignificant=1 Slight 2=Moderate 3=High 4=Extreme)

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

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. Get medical attention if irritation persists.

4.3 INGESTION: If conscious and alert, administer water or milk to dilute, 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.

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. Contain any liquid runoff.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 SMALL RELEASES: Confine and absorb small releases on sand earth or other inert absorbent. Use water spray to dilute .

6.2 LARGE RELEASES: Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, rains or surface waterways. Recover as much of the solution as possible. Treat remaining material as a small release (above).

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING: Avoid contact with eyes. 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 at temperatures between 40° and 95°F. Do not store near food or feeds.

7.3 TRANSFER EQUIPMENT: Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.

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.

8.2 SKIN PROTECTION: Neoprene rubber groves and apron should be worn to prevent repeated or prolonged contact with the liquid. 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:	TWA	STEL
OSHA	N/A	N/A
ACGIH	N/A	N/A

8.5 ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapors.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE	Black/brown, clear viscous liquid
9.2 ODOR:	Fruity sweet
9.3 VAPOR PRESSURE:	None
9.4 VAPOR DENSITY:	Not available
9.5 SOLUBILITY IN WATER:	Highly soluble
9.6 SPECIFIC GRAVITY (H ₂ O = 1):	1.4
9.7 MELTING POINT:	N/A
9.8 pH:	5.1
9.9 VOLATILE:	Not available
9.10 COLOR:	Black/brown, clear viscous liquid
9.11 WEIGHT PER GALLON:	11.7 lbs (5.3 kg)
9.12 STORAGE LIFE AT 70° F:	> 1 Year
9.13 PH-21C:	N/A
9.15 VISCOSITY:	Not available
9.16 FREEZING POINT:	< 32° F
9.17 EVAPORATION RATE:	Not determined
9.18 BOILING POINT:	224°F

SECTION 10: STABILITY AND REACTIVITY

10.1 STABILITY: Stable

10.2 HAZARDOUS POLYMERIZATION: Will not occur.

10.3 HAZARDOUS DECOMPOSITION PRODUCTS: None Known

10.4 INCOMPATIBILITY: None. Avoid heat over 140°F. Keep container vented to allow release of CO₂ produced by natural yeast in product

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 ORAL: May cause stomach cramps and/or nausea.

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.

11.4 CHORNIC/CARCINOGENICTY: 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 washwaters.

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 D.O.T. Regulated

Other Shipping Description: Fertilizing Compounds (Manufactured), Liquid. NMFC Item 6810 Sub 6, LTL Class 70

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 that he has all current data relevant to his particular use.