

SAFETY DATA SHEET

FILE NO.: BPTTG0013-2017Q1

NAME OF PRODUCT: **Tuff Greens™ 0-0-13**

Preparation Date: 05/07/1997

Revision: 03/28/2017

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODES: BPT-TG0013
PRODUCT NAME: Tuff Greens 0-0-13
SYNONYMS: Potassium and micronutrient blend

MANUFACTURER: BioPro Technologies, LLC
ADDRESS: 4060 SE 45th Court, Ocala, FL 34480

EMERGENCY PHONE: (888) 545-6307

CHEMTREC PHONE:

OTHER CALLS: (352) 620-2020

FAX PHONE: (352) 620-0312



PRODUCT USE: Plant nutrient

PREPARED BY: E.F. Wilson III

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Health: Acute Toxicity: Oral : Category 4 Eye Effects: Category 2(b)	Environmental: None Known	Physical: May be corrosive to metals
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GHS Pictogram: 	ANSI/Old Pictogram: 	Signal Word: Warning
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Hazard Statements: H316: Causes mild skin irritation H303: May be harmful if swallowed H320: Causes eye irritation	Precautionary Statements: P101: If medical advice is needed, have product container or label at hand P102: Keep out of reach of children P103: Read label before use P262: Do not get in eyes, on skin, or on clothing P280: Wear protective gloves/protective clothing/eye protection/face protection P281: Use personal protective equipment as required P353: Rinse skin with water/shower If swallowed: Call a poison center and/or Doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and able to do so. Continue rinsing eyes. Seek medical attention if eye irritation persists.
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SECTION 2 NOTES: Dark amber to chocolate brown liquid, slight odor.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:

Potassium Hydroxide – CAS# 1310-58-3
Sodium Glucoheponate – CAS# 31138-65-5
Calcium Chloride – CAS# 10043-52-4
Potassium Silicate – CAS# 1312-76-1
EDTA Acid – CAS# 60-00-4
Ferric Chloride – CAS# 7705-08-0

*AS PER 29 CFR §1910.1200, THE SPECIFIC CHEMICAL IDENTITY AND/OR EXACT PERCENTAGE (CONCENTRATION) OF COMPOSITION HAS BEEN WITHHELD AS A TRADE SECRET.

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

IF INHALED: Generally does not pose an inhalation hazard; remove to fresh air.

IF ON SKIN (OR HAIR): Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.

IF IN EYES: 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

IF SWALLOWED: Rinse mouth. If victim is conscious, give two to four glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.

SECTION 4 NOTES: Provide general supportive measures and treat symptomatically. 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).

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES: NOT FLAMMABLE

FLASH POINT: SAMPLE BEGINS TO BOIL BUT NO FLASH IS OBSERVED

AUTOIGNITION TEMPERATURE: NOT APPLICABLE, MIXTURE WILL NOT AUTOIGNITE

NFPA HAZARD CLASSIFICATION

HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0
OTHER: 0

EXTINGUISHING MEDIA: FOAM, ALCOHOL FOAM, CO₂, DRY CHEMICAL, WATER FOG, OTHER MEDIA SUITABLE FOR COMBUSTIBLES INVOLVED IN FIRE.

SPECIAL FIRE FIGHTING PROCEDURES: LIQUID MATERIAL DOES NOT BURN. DRY MATERIAL MAY BURN. THERE ARE NO SPECIAL FIREFIGHTING PROCEDURES. COOL SEALED CONTAINERS TO REDUCE RISK OF RUPTURE DUE TO EXCESSIVE HEAT.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS: 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. MOVE CONTAINER FROM FIRE AREA IF POSSIBLE WITHOUT RISK.

UNUSUAL FIRE AND EXPLOSION HAZARDS: 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.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Carbon and Nitrogen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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Spill/Leak Procedures: Small Spills: Wear protective equipment. Prevent spill from entering water systems. Absorb spill on inert material such as clay, vermiculite or kitty litter. Place absorbed material into labeled container for proper disposal.

Large Spills: Dike to prevent spill from entering water systems.

Cleanup: If spill is of major proportions, soil may need to be excavated.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Avoid contact with skin/eyes/clothing. Do not swallow. Wash after handling. Do not contaminate water by disposal of equipment wash waters.

OTHER PRECAUTIONS: THIS PRODUCT IS FOR AGRICULTURAL AND HORTICULTURAL USE ONLY AND IS NOT INTENDED FOR OTHER APPLICATIONS. USE NORMAL SAFE HANDLING PROCEDURES AS WITH ALL CHEMICALS. SEE LABEL FOR APPLICATION INSTRUCTIONS AND DIRECTIONS FOR USE.

SECTION 7 NOTES: Store in a cool, dry area preferably locked and out of reach of children and animals. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide eyewash station; use outdoors only.

VENTILATION : Use in open, outdoor areas only.

RESPIRATORY PROTECTION: Not normally needed due to no TLV associated with this product. Use a nuisance chemical or dust mask if working in spray mist. In confined areas use NIOSH/MSMA approved respirator.

EYE PROTECTION: Splash proof goggles are recommended while pouring and handling to prevent eye contact from splash.

SKIN PROTECTION: Rubber gloves are recommended for normal cleanliness.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear suitable protective clothing. Wash contaminated clothing prior to reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

WORK HYGIENIC PRACTICES: 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.

EXPOSURE GUIDELINES: THIS PRODUCT DOES NOT EMIT ANY FORM OF ENERGY, RADIANT OR OTHERWISE.

{Numbers represent mg/M³ unless otherwise indicated}.

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Potassium Hydroxide	NA	NA	Ceiling=2		2	NA	NA

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Dark amber to chocolate colored liquid

ODOR: Slight odor

PHYSICAL STATE: Liquid

pH AS SUPPLIED: 13.47 @69.8°F

BOILING POINT:

F: 212 DEGREES F

C:

MELTING POINT/FREEZING POINT:

F: 32*

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C:

VAPOR PRESSURE (mmHg): Unknown

VAPOR DENSITY (AIR = 1): Unknown

SPECIFIC GRAVITY (H₂O = 1): 1.226

EVAPORATION RATE: Not determined.

BASIS (=1):

SOLUBILITY IN WATER: INFINITE

PERCENT VOLATILE: NO VOLATILITY PRESENT

VOLATILE ORGANIC COMPOUNDS (VOC): NONE

MOLECULAR WEIGHT: NO DATA PRESENT

VISCOSITY:

SECTION 9 NOTES: 10.23 lbs./gal.

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

INCOMPATIBILITY / CONDITIONS TO AVOID: Avoid interaction with heat (flames), oxidizers, acids or alkalis (see details below in this section), water-reactive materials.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Oxides of Carbon and Nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Temperatures above 120°F (49°C) and below 32°F (0°C).

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Not determined; no data available. This product does not bioaccumulate.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Accidental spills of undiluted product will cause vegetation kills. Keep out of any body of water.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: 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.

RCRA HAZARD CLASS: NOT APPLICABLE

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SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: Tuff Greens 0-0-13
HAZARD CLASS: Not regulated as dangerous goods.
ID NUMBER: NOT APPLICABLE
PACKING GROUP:
LABEL STATEMENTS:

OCEAN/WATER TRANSPORTATION

PROPER SHIPPING NAME: Tuff Greens 0-0-13
HAZARD CLASS: Not regulated as dangerous goods.
ID NUMBER: NOT APPLICABLE
PACKING GROUP:
LABEL STATEMENTS:

AIR TRANSPORTATION

PROPER SHIPPING NAME: Tuff Greens 0-0-13
HAZARD CLASS: Not regulated as dangerous goods.
ID NUMBER: NOT APPLICABLE
PACKING GROUP:
LABEL STATEMENTS:

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: This product meets the criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA (TOXIC SUBSTANCE CONTROL ACT): NOT APPLICABLE

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): NOT APPLICABLE

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): NOT APPLICABLE

HAZARD CATEGORIES: Check with specific state authorities since regulations vary within the states.

REPORTABLE INGREDIENTS: NOT APPLICABLE

STATE REGULATIONS: SOME U.S. STATES REQUIRE PRODUCT REGISTRATION

INTERNATIONAL REGULATIONS: CONSULT LAWS OF APPLICABLE JURISDICTION

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

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