

SAFETY DATA SHEET

FILE NO.: BPTMPP402-2017Q1

NAME OF PRODUCT: **Multi-Purpose Plus™ (4-0-2)**

Preparation Date: 03/27/2017

Revision: 03/27/2017

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODES: BPT-TP2003
PRODUCT NAME: Multi-Purpose Plus (4-0-2)
SYNONYMS: plant nutrient blend (4-0-2) with seaweed extract and humectant blend

MANUFACTURER: BioPro Technologies, LLC
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CHEMTREC PHONE:

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PRODUCT USE: Turf management

PREPARED BY: E.F. Wilson III

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Health: Eye Effects: Category 2(b) Respiratory Irritation: Category 3 Skin Irritation: Category 3	Environmental: Acute Aquatic Toxicity: Unknown	Physical: No Physical Hazards Present
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GHS Pictogram: 	ANSI/Old Pictogram: 	Signal Word: Warning
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Hazard Statements: H316: Causes mild skin irritation H317: May cause an allergic skin reaction H320: Causes eye irritation H302 - Harmful if swallowed. H335 - May cause respiratory 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 P261: Avoid breathing dust/fume/gas/mist/vapors/spray P262: Do not get in eyes, on skin, or on clothing P271: Use only outdoors or in a well ventilated area 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 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 able to do so. Continue rinsing eyes. Seek medical attention if eye irritation persists.
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SECTION 2 NOTES:

Physical Description (also see Section 9): Dark reddish brown liquid; slight odor

Medical Conditions Aggravated by Long-Term Exposure: Persons with existing skin lesions should exercise caution when using or handling this product. These individuals should also avoid all contact with possible spray mist.

Chronic Effects: Prolonged or repeated skin contact may cause dermatitis. Ingestion may irritate gastrointestinal tract.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS*:

Potassium Hydroxide - CAS# 1310-58-3
Urea - CAS# 15978-77-5
Calcium Nitrate – CAS# 10124-37-5
Iron EDTA - CAS# 15708-41-5
Manganese Chloride - CAS# 7773-01-5
Magnesium Nitrate – CAS# 10377-60-3

(Contains organic acid chelating agents)

-Seaweed Extract (ASCOPHYLLUM NODOSUM) – 2 - 3%* BY WEIGHT - CAS# 84775-78-0

-Propriety blend of hygroscopic and humectant compounds:

Sugar alcohols, polysaccharides, neutral salts of alpha-hydroxypropionic acid* = 14.6%

-Non-ionic surfactant – 2.7%

*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: Remove to fresh air. If needed, seek medical attention.

IF ON SKIN (OR HAIR): Remove any contaminated clothing. Wash affected area with mild soap and water. Get medical attention if irritation persists or develops. Launder contaminated clothing before reuse.

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: Give 2 or 3 glasses of water to drink. Induce vomiting by touching back of throat with finger. Get immediate medical attention. After first aid, get appropriate in-plant, paramedic, or community medical support.

SECTION 4 NOTES: Provide general supportive measures and treat symptomatically. No specific antidote.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES: NON-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
OTHER: 0

FLAMMABILITY: 0

REACTIVITY: 0

EXTINGUISHING MEDIA: Water spray, dry chemical, carbon dioxide, or foam.

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SPECIAL FIRE FIGHTING PROCEDURES: Prevent runoff from entering water systems. Keep non-essential personnel out of fire area. Move containers from fire area if safe to do so. Keep containers/vessels in fire area cooled with water spray.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS: Fire fighters should wear full protective equipment and self-contained breathing apparatus.

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. Vapors are irritating to eyes, skin and respiratory tract.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen, carbon monoxide, carbon dioxide

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Prevent spill from entering water systems. 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: 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.

CONTAINMENT METHODS AND CLEANUP: Stop the flow of material, if this is without risk.

Large Spills: Dike the spilled material, where this is possible. Absorb in vermiculite or absorbent material.

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. Dispose of in accordance with local, State, and Federal laws and regulations; see Section 13.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with skin and 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. Store in a cool, dry, locked area out of reach of children and animals.

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: Use in open, outdoor areas only.

VENTILATION : See above.

RESPIRATORY PROTECTION: In confined areas, NIOSH/MSMA approved respirator.

EYE PROTECTION: SPLASH PROOF GOOGLES 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:

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{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
Elemental iron	NA	NA	1	NA	1	NA	NA
Elemental manganese		Ceiling=5	0.2	NA	1	NA	500

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Dark reddish brown liquid

ODOR: Slight odor

PHYSICAL STATE: Liquid

pH AS SUPPLIED: 3.10 @ 21.2C

WEIGHT: 11.13 lbs. per gal. (1.33 kg/L)

BOILING POINT:

F: 212

C: 100

MELTING POINT/FREEZING POINT:

F: 32

C: 0

VAPOR PRESSURE (mmHg): Unknown

VAPOR DENSITY (AIR = 1): Unknown

DENSITY (g/cm³): 1.3

SPECIFIC GRAVITY (H₂O = 1): 1.334

EVAPORATION RATE: Not determined.

BASIS (=1):

SOLUBILITY IN WATER: Soluble

PERCENT VOLATILE: NO VOLATILITY PRESENT

VOLATILE ORGANIC COMPOUNDS (VOC): NONE

MOLECULAR WEIGHT: NO DATA PRESENT

VISCOSITY:

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID (STABILITY): Avoid extreme heat. Do not freeze.

INCOMPATIBILITY (MATERIAL TO AVOID): None known.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Oxides of nitrogen, carbon monoxide, carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur.

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

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SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Not determined; no data available.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Accidental spills of undiluted product may cause vegetation kills. Keep out of any body of water; may harm aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: 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

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: MultiPurpose Plus 4-0-2

HAZARD CLASS: Not regulated

OCEAN/WATER TRANSPORTATION

PROPER SHIPPING NAME: MultiPurpose Plus 4-0-2

AIR TRANSPORTATION

PROPER SHIPPING NAME: MultiPurpose Plus 4-0-2

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

EPA Regulations: Not regulated by EPA under FIFRA or FQPA.

OSHA Regulations: Refer to Sections 2 & 8.

State Regulations: Check with specific state authorities since regulations vary within states.

Other Regulations: Section 304 chemicals: potassium hydroxide (CERCLA RQ=1,000 lbs.)

SARA Title III; Sections 311/312: Sudden Release of Pressure (N), Reactivity (N), Fire (N), Immediate (Acute) Health (Y), Delayed (Chronic) Health (N).

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

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