

Safety Data Sheet

Issue Date: 07-Apr-2020

Revision Date: 14-Apr-2020

Version 1

1. IDENTIFICATION

Product identifier

Product Name BioNutrients Total-Pak 1-0-4

Other means of identification

SDS # GRPR-031

Recommended use of the chemical and restrictions on use

Recommended Use Turf and Ornamental Use Only.

Details of the supplier of the safety data sheet

Supplier Address

Plant Health Intermediate DBA Douglas Plant Health
1550 E Old 210 Hwy
Liberty, MO 64068

Emergency telephone number

Company Phone Number (914) 428-1316
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Physical state Solid

Classification

This SDS was created using the criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and is compliant with the Globally Harmonized System of Labeling and Classification of Chemicals (GHS). The classification and labeling information in this Safety Data Sheet should be viewed as provisional, as physical test data has not been performed.

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Signal Word

Warning

Hazard statements

Causes skin irritation
Causes serious eye irritation



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

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
 IF ON SKIN: Wash with plenty of water and soap
 Take off contaminated clothing and wash before reuse
 If skin irritation occurs: Get medical advice/attention

Other hazards

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Please also refer to subsequent sections of this SDS for additional information regarding the components of this product.

Chemical name	CAS No	Weight-%
Humic Acid	1415-93-6	10-20
Ferrous sulfate, monohydrate	7720-78-7	1-5
Manganese EDTA	15375-84-5	1-5
Ethylenediaminetetraacetic acid copper salt, tetrahydrate	14025-15-1	<1

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	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. 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	Causes skin and eye irritation. Contact with skin may cause mechanical irritation. May be harmful in contact with skin. Inhalation of dust may cause mechanical irritation to the respiratory tract.
-----------------	--

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
---------------------------	------------------------

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

Not determined.

Hazardous combustion products Carbon oxides.

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.

Methods for Clean-Up Reclaim where possible. Avoid the generation of dusts during 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 generation of dust. Avoid contact with skin, eyes or clothing.

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 acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ferrous sulfate, monohydrate 7720-78-7	TWA: 1 mg/m ³ Fe	(vacated) TWA: 1 mg/m ³ Fe	TWA: 1 mg/m ³ Fe
Manganese EDTA 15375-84-5	-	(vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 500 mg/m ³ Mn TWA: 1 mg/m ³ Mn STEL: 3 mg/m ³ Mn

Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist
---	---	---	---

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. Reference Wiley's "Quick Selection Guide to Chemical 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	Solid	Odor	Not determined
Appearance	Not determined	Odor Threshold	Not determined
Color	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
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	Soluble in water	
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 acids. Strong bases.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes serious eye irritation.
Skin Contact	Causes skin irritation. May be harmful in contact with skin.
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
Ferrous sulfate, monohydrate 7720-78-7	= 319 mg/kg (Rat)	= 155 mg/kg (Rat)	-
Potassium Carbonate 584-08-7	= 1870 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

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.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Oral LD50 5,460.00 mg/kg
Dermal LD50 2,653.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Magnesium Sulfate Anhydrous 7487-88-9	2700: 72 h Desmodesmus subspicatus mg/L EC50	2610 - 3080: 96 h Pimephales promelas mg/L LC50 static 19000: 24 h Lepomis macrochirus mg/L LC50 static	1700: 24 h Daphnia magna mg/L EC50 266.4 - 417.3: 48 h Daphnia magna mg/L EC50 Static
Ferrous sulfate, monohydrate 7720-78-7		925: 96 h Poecilia reticulata mg/L LC50 static 0.56: 96 h Cyprinus carpio mg/L LC50 semi-static	152: 48 h Daphnia magna mg/L EC50 6.15 - 9.26: 48 h Daphnia magna mg/L EC50 Static
Potassium Carbonate 584-08-7			630: 48 h Ceriodaphnia dubia mg/L LC50
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1		555: 96 h Lepomis macrochirus mg/L LC50 static	

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Not determined

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.

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1	Toxic

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	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Maltodextrin	X	ACTIVE	X	X	X	X	X	X	X
Humic Acid	X	ACTIVE	X	X		X	X	X	X
Magnesium Sulfate Anhydrous	X	ACTIVE	X	X	X	X	X	X	X
Ferrous sulfate, monohydrate	X	ACTIVE	X	X	X	X	X	X	X
Manganese EDTA	X	ACTIVE	X	X	X	X			X
Potassium Carbonate	X	ACTIVE	X	X	X	X	X	X	X
Ethylenediaminetetraacetic acid copper salt, tetrahydrate	X	ACTIVE	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, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ferrous sulfate, monohydrate 7720-78-7	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Manganese EDTA - 15375-84-5	15375-84-5	1-5	1.0
Ethylenediaminetetraacetic acid copper salt, tetrahydrate - 14025-15-1	14025-15-1	<1	1.0

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ferrous sulfate, monohydrate	1000 lb			X
Ethylenediaminetetraacetic acid copper salt, tetrahydrate		X		

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ferrous sulfate, monohydrate 7720-78-7	X	X	X
Manganese EDTA 15375-84-5	X		X
Ethylenediaminetetraacetic acid copper salt, tetrahydrate 14025-15-1	X		X

16. OTHER INFORMATION**NFPA****Health Hazards****Flammability****Instability****Special Hazards**

Not determined

Not determined

Not determined

Not determined

HMIS**Health Hazards****Flammability****Physical hazards****Personal Protection**

Not determined

Not determined

Not determined

Not determined

Issue Date: 07-Apr-2020
Revision Date: 14-Apr-2020
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