

BioNutrients Total-Pak

Section 1 - IDENTIFICATION

1.1. Product Identifier

Product name: BioNutrients Total-Pak with Mycorrhizal Technology

Synonym: For all types of Crops, Plantings & Trees

1.2. Recommended Use / Restrictions

Identified Uses: For soil conditioning & remediation

Restrictions: N/A

1.3. Supplier Details

Company: Growth Products, Ltd.
80 Lafayette Avenue
White Plains, NY 10603-1603 USA
+011 914-428-1316 (9 am - 5 pm EST Mon - Fri)
questions@growthproducts.com

1.4. Emergency Telephone Number

Emergency Telephone: 800-222-1222 (American Association of Poison Control Centers)

Section 2 - HAZARD(S) IDENTIFICATION

2.1. Classification of substance or mixture

OSHA Hazards: N/A

Target Organs: Skin, Lungs, Respiratory System & Eyes

Physical Hazards: Skin Sensit. 1B – H317

Eye Irrit. 2B – H320

Health Hazards: STOT SE 3 – H335

Environmental Hazards:

2.2. Label Elements

Pictogram(s):



Signal Word: WARNING!

Hazard Statements: H317 May cause an allergic skin reaction (May cause a reaction to individuals allergic to fish)

H320 Causes eye irritation

H335 May cause respiratory irritation

Precautionary Statements: P261 Avoid breathing dust/fume/gas/mist/vapours/spray

P264 Wash face, hands and any exposed skin thoroughly after handling

P271 Use only outdoors in a well-ventilated area

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear dust mask/ protective gloves/ eye protection/ face protection

P302+P352 IF ON SKIN: Wash with plenty of water

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing

Precautionary Statements Continued:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P312 Call a POISON CENTER or doctor if you feel unwell

P333+P313 If skin irritation occurs: Get medical advice/attention

P326+P364 Take off contaminated clothing and wash it before reuse

P337+P313 If eye irritation persists. Get medical advice/attention

P403 +P233 Store in a well-ventilated place. Keep container tightly closed

P405 Store locked up

P501 Dispose of contents/container in accordance with local/regional/international regulations.

2.3. Other Hazards Potential Health Effects

Eyes: May cause irritation or inflammation, temporary

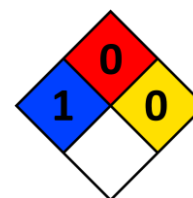
Inhalation: Irritating and soreness in throat and nose. In extreme exposures some congestion may occur.

Skin: Prolonged or repeated skin exposure may cause dermatitis. Individuals allergic to fish may have

Ingestion: Not hazardous when ingested.

NFPA Ratings

Health:	1	Slightly hazardous
Flammability:	0	Will not burn
Reactivity:	0	Stable
Specific Hazard:	N/A	Not applicable



HMIS Ratings

Health:	1	Minor hazard
Flammability:	0	Minimal hazard
Reactivity:	0	Minimal hazard
Personal (PPE):	C	(Dust Mask) Goggles, Gloves, Protective apron

Health	<i>minor</i>	1
Flammability	<i>minimal</i>	0
Physical Hazard	<i>minimal</i>	0
Personal Protection		C

Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Chemical Name	CAS Registry No.	REACH No.	ENECs No.	Classification
Urea:	57-13-6	01-2119463277-33	200-315-5	N/A
Methylene diurea:	13547-17-6	-	-	GHS: Eye Irrit. 2A – H319
Ferrous Sulfate:	7782-63-0	-	-	GHS Acute Tox., Oral 4 – H303 Skin Irrit. 2 – H316 Eye Irrit. 2B – H320
Plant extracts:	9010-10-0	-	-	Not Classified
Fish hydrolysate:	-	-	-	GHS-US: Skin Irrit. 3 – H316 Eye Irrit. 2B – H320
Dried bacillus subtilis:	68038-70-0	-	-	N/A according to GHS criteria for this product
Endo & Ectomycorrhizae spp.:	N/A	-	-	N/A
Yucca schidigera:	223749-05-1	-	-	GHS-US Eye Irrit. 2B – H320 Skin Irrit. 3 – H316
Kelp extract:	69235-69-4	-	-	Nontoxic
Potassium humate:	68514-28-3	-	-	Nontoxic

Section 4 - FIRST-AID MEASURES**4.1. Description of first-aid measures**

- Inhalation:** Move affected person to fresh air at once and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention/advice.
- Ingestion:** Never give anything by mouth to an unconscious person. Do not induce vomiting unless instructed by medical professional. If conscious, rinse mouth thoroughly with water. If conscious, give water. Get medical attention/advice in symptoms persists.
- Skin Contact:** Flush with plenty of water for at least 15 minutes and take off all contaminated clothing. Get medical attention/advice if irritation persists.
- Eye Contact:** Rinse cautiously with plenty of water for at least 15 minutes and seek medical attention/advice if irritation persists.

4.2. Most important symptoms and effect, both acute and delayed

- Inhalation:** May cause respiratory irritation. There may be irritation of the throat with a feeling of tightness in the chest.
- Ingestion:** Ingestion may cause nausea, vomiting and severe stomach and digestive irritation/burns. There may be soreness and redness of the mouth and throat.
- Skin Contact:** Skin contact may cause redness and irritation, dermatitis. Prolonged or repeated skin contact can result in the development of allergy-like skin reactions (e.g. rashes, dermatitis and to individuals allergic to fish)
- Eye Contact:** There may be irritation and redness. Profuse watering of the eyes.

4.3. Indication of any immediate medical attention and special treatment needed

- Notes for doctor:** No specific recommendations. If in doubt, get medical attention promptly. Treatment may vary with the condition of victim and specifics of incident.
- Specific treatments:** Eye bathing equipment should be available on the premises. Provide quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

Section 5 - FIREFIGHTING MEASURES**5.1. Extinguishing media**

- Suitable extinguishing media:** The product is not considered flammable. Use fire-extinguishing media suitable for the surrounding environment.
- Unsuitable extinguishing media:** N/A
- Environmental Hazards:** Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

5.2. Special hazards arising from the substance or mixture

- Specific hazards arising from the chemical:** N/A
- Hazardous combustion products:** Product components under conditions of fire may produce Ammonia; Nitrogen oxides; Biuret. Do not inhale smoke and gases. (See also Stability and Reactivity section).

5.3. Advice for firefighters

- Protective actions during firefighting:** No specific firefighting precautions known, Irritant, non-flammable, water soluble. Do not inhale gases created by fire Do not allow run-off from firefighting to enter drains or watercourses.
- Special protective equipment for firefighters:** Wear self-contained, NIOSH approved breathing apparatus and full protective clothing, including eye protection and boots.

Section 6 - ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

- Personal precautions:** Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 Environmental precautions

Environmental precautions: Avoid the spillage or runoff entering drains, sewers or watercourses. Any release into the environment may be subject to federal/national or local reporting requirements.

6.3 Methods and material for containment and cleanup

Methods for cleaning up: Stop leak if possible without risk. Contain and absorb spillage with sand, earth or other noncombustible material. Transfer to a suitable container for disposal. Clean surfaces thoroughly with plenty of water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4 Reference to other sections

Reference to other sections: For personal protection, see Section 8.
For waste disposal, see Section 13.

Section 7 - HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Using precautions: Provide adequate ventilation. Avoid spilling, avoid contact with skin and eyes. Wash hands thoroughly after handling.

Advice on general occupational hygiene: Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage precautions: Store closed in original container in a dry, cool and well-ventilated place. Store at temperatures above 5°C. Keep away from incompatible materials. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Specific end use(s): The identified uses for this product are detailed in Section 1.2.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control Parameters

Occupational exposure limits

Material	Type	Value	Source
Urea (CAS 57-13-6):	ACGIH TWA OSHA PEL (TWA)	10 mg/m ³ – inhalation particulate 5 mg/m ³ – Respirable (particulate)	USA ACGIH USA OSHA
Methylene diurea (CAS 13547-17-6):	N/A	N/A	N/A
Ferrous Sulfate (CAS 7782-63-0):	No biological exposure limits noted for ingredient(s)	1 mg/m ³	US ACGIH Threshold Limit Values US NIOSH: Pocket guide to Chemical Hazards
Plant extracts (CAS 69235-69-4):	N/A	N/A	Not listed
Fish hydrolysate (CAS N/A):	N/A	N/A	Not listed
Dried bacillus subtilis (CAS 68038-70-0):	N/A	N/A	N/A
Yucca schidigera (CAS 223749-05-1):	N/A	N/A	Not listed in IFA database
Kelp extract (CAS 69235-69-4):	N/A	N/A	N/A
Potassium humate 9CAS 68514-28-3):	N/A	N/A	N/A

8.2. Exposure controls

Protective equipment

General information: Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

Appropriate engineering controls: Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas to keep below nuisance dust limit of 15 mg/m³

Eye / face protection: Use chemical splash-type goggles / safety glasses. Have eye wash station available in immediate vicinity.

Hand protection: Wear approved impermeable gloves. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.

Other skin and body protection: Wear impervious clothing such as an approved splash protective suit, protective apron. Have emergency shower in immediate vicinity. Wash contaminated clothing before reuse. Handle in accordance with good hygiene and safety practices

Hygiene measures: Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin contamination.

Respiratory protection: If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (e.g., a full-face airline respirator (ALR)).

Environmental exposure controls: Eye bathing equipment should be available on the premises. Provide quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available. Ensure adequate ventilation, especially in confined areas.

Equipment:

HMIS Letter:

C



Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State:	Powder	Evaporation Rate:	N/A
Color	Brown	Boiling Point:	N/A
Odor:	Organic Sweet Odor	Freezing Point:	N/A
Weight per Gallon / Liter:	41.82 / cu ft.	Viscosity:	N/A
Storage Life at 70F:	>18 months	Flash Point/Method:	N/A
pH – 21C:	4.5	Vapor Pressure:	N/A
Solubility:	N/A	Storage Temperature:	N/A

9.2. Other information

Other properties: N/A

Section 10 - STABILITY AND REACTIVITY

- 10.1. Reactivity:** Keep away from reducing agents, strong bases, organics, combustible material, and oxidizable materials. Avoid heating this substance.
- 10.2. Chemical Stability:** Stable under normal conditions. Decomposes on heating. Stable under recommended storage conditions.
- 10.3. Possibility of Hazardous Reactions:** Contact with organic substances may cause fire or explosion. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.
- 10.4. Conditions to Avoid:** Excessive heat; Contamination; Exposure to UV-rays; pH variations. Store out of direct light.
- 10.5. Incompatible Materials**
- Materials to avoid:** None known
- 10.6. Hazardous Decomposition Products:** N/A

Section 11 - TOXICOLOGICAL INFORMATION
11.1. Information on Toxicological Effects
Toxicological effects:
Acute toxicity Dermal LD₅₀: 0.5 ml dosage level (rabbit)

Acute toxicity Oral LD₅₀: 5000 mg/kg dosage level (rat)

Acute toxicity Inhalation LD₅₀: N/A

Chronic Toxicity: N/A

Symptoms: Dust, fume, gas, vapors, mists, can cause upper airway irritation, inflammation of the nose, hoarseness, shortness of breath, and a sensation of burning or tightness in the chest. Prolonged exposure can cause irritation, especially to individuals allergic to fish. Exposure to can cause stinging pain and tearing of eyes.

Teratogenicity: N/A

Mutagenicity: This product is not recognized as mutagenic by Research Agencies. In vivo tests did not show mutagenic effects.

Embryotoxicity: N/A

Specific Target Organ Toxicity: N/A

Reproductive Toxicity: No toxicity to reproduction in animal studies.

STOT SE: Not Classified

STOT RE: Not Classified

Target Organs: Eyes, Lungs, Respiratory System, Skin

Respiratory Sensitization: N/A

Skin Sensitization: Moderately irritating

Carcinogenicity
IARC: N/A **NTP:** N/A

ACGIH: N/A **OSHA:** N/A

Section 12 - ECOLOGICAL INFORMATION
Ecotoxicity
12.1. Toxicity: Not expected to have significant environmental effects

12.2. Persistence and degradability: Non-degradable

12.3. Bioaccumulative potential: Not bioaccumulative

12.4. Mobility in Soil: Will likely be mobile in the environment due to its water solubility.

12.5. Results of PBT and vPvB Assessment: N/A

12.6. Other Adverse Effects: N/A

Section 13 - DISPOSAL CONSIDERATIONS
13.1. Waste Treatment Methods
Disposal methods: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product, residue and/or container.

The information offered in Section 13 for the product as shipped.

US EPA Waste Number: N/A

Section 14 - TRANSPORTATION INFORMATION

General: Product is a non-regulated material; not flammable, not corrosive, not explosive and not radioactive.
In accordance with DOT / TDG / ADR / RID / ADNR / IMDG / ICAO / IATA

Regulatory Information	14.1 UN Number	14.2 Proper Shipping Name	14.3 Class(es)	14.1 Packing Group	14.5 Environmental Hazard	14.6 Special Precautions For User	Additional Information
ADR / RID Class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A
ADNR Class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A
IMDG Class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A
IATA class	Not regulated for transportation	Not regulated	Not regulated	Not regulated	Not classified as marine pollutant	N/A	N/A

14.7. Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code: Not regulated

Section 15 - REGULATORY INFORMATION

15.1. Safety, health and Environmental Regulations / Legislation Specific for the Substance or Mixture

EU legislation: Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 453/2010 of May 2010.

US Federal Regulations

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

SARA 311/312 Hazard Categories:

Acute health hazard: NO	Sudden release of pressure hazard: NO
Chronic health hazard: NO	Reactive Hazard: NO
Fire hazard: NO	

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)

CERCLA / EPCRA: This material, as supplied, is not subject to the Comprehensive Response Compensation and Liability Act (CERCLA) or as an extremely hazardous substance (EHS) under the Emergency Planning and Community Right to Know Act (EPCRA) / Superfund Amendments and Reauthorization Act (SARA).

Section 16 - OTHER INFORMATION

REVISED DATE: 29 September 2016

Other Precautions:

Read entire label before using

Abbreviations / Acronyms:

N/E Not Established	N/A Not applicable
ACGIH American Conference of Governmental Industrial Hygienists	
TLV Threshold Limit Values	
PEL Permissible Exposure Limit	
REL Recommended Exposure Limit	
OSHA Occupational Safety and Health Administration	



SAFETY DATA SHEET

NIOSH	National Institute for Occupational Safety and Health
TWA	Time Weighted Average over 8 hours of work
TLV	Threshold Limit Value over 8 hours of work
REL	Recommended Exposure Limit
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit during x minutes
IDLH	Immediately Dangerous to Life or Health
TSCA	Toxic substance Control Act (United States)
DSL	Domestic Substance List (Canada)
EINECS	European Inventory of Existing Commercial Chemical Substances (Europe)
ELINCS	European List of Notified Chemical Substances (Europe)
ENCS	Existing Chemical Substances
IECSC	Inventory of Existing Chemical Substances
KECL	Korea Existing Chemicals Inventory
PICCS	Philippines Inventory of Chemical and Chemical Substances
AICS	Australian Inventory of Chemical Substances
NZIoC	New Zealand Inventory of Chemicals
HMIS	Hazardous Material Identification System (American Coatings Association)
NFPA	National Fire Protection Association
PBT	Persistent Bioaccumulative and Toxic
vPvB	Very Persistent and very Bioaccumulative
STOT SE	Specific Target Organ Toxicity; Single Exposure
STOT RE	Specific Target Organ Toxicity; Repeated Exposure
FHSA	Federal Hazardous Substances Act
GER-MAK	Germany Maximum Workplace Concentration
DOT	Department of Transportation
TDG	Transportation of Dangerous Goods (Canada)
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail (EU)
ADNR	Regulation for the Carriage of Dangerous Substances on Waterways (EU)
IMDG	International Maritime Dangerous Goods
ICAO	International Civil Aviation Organization
IATA	International Air Transport Association

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