



# BioNutrients™ Total Pak

## 1-0-4

### Guaranteed Analysis

Total Nitrogen (N).....	1 %
1.0% Water Insoluble Nitrogen	
Soluble Potash (K <sub>2</sub> O).....	4 %
Magnesium (Mg).....	0.50 %
Copper (Cu).....	0.05 %
Iron (Fe).....	0.50 %
Manganese (Mn).....	0.20 %
Molybdenum (Mo).....	0.005 %
Zinc (Zn).....	0.05 %

Derived From: Copper EDTA, Ferrous Sulfate, Fish Protein Hydrolysate, Kelp Extract (*Ascophyllum nodosum*), Magnesium Sulfate, Manganese EDTA, Potassium Carbonate, Sodium Molybdate, Zinc EDTA

### Also Contains Non-Plant Food Ingredients:

#### Guaranteed Analysis – Soil Amending Ingredients

Microbial Content.....	0.5%
<i>Bacillus amyloliquefaciens</i> .....	1.0x10 <sup>6</sup> cfu/g
<i>Bacillus licheniformis</i> .....	2.5x10 <sup>5</sup> cfu/g
<i>Bacillus megaterium</i> .....	2.5x10 <sup>5</sup> cfu/g
<i>Bacillus pumilus</i> .....	1.5x10 <sup>6</sup> cfu/g
<i>Bacillus subtilis</i> .....	2.0x10 <sup>6</sup> cfu/g
<i>Pseudomonas fluorescens</i> .....	5.0x10 <sup>4</sup> cfu/g
<i>Pseudomonas putida</i> .....	5.0x10 <sup>4</sup> cfu/g
Humic Acids (derived from Leonardite).....	15.0%
Total Other Ingredients:.....	84.5%

### Product Description:

BioNutrients Total Pak is a combination fertilizer and soil amendment designed to provide N, K and micronutrients while aiding in the conversion of inorganic and organic fertilizers into plant available forms. Application of BioNutrients Total Pak increases microbial populations in the rhizosphere and humic substances to improve soil conditions.

### FIRST AID

**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

### DPH Biologicals

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**Net Weight: 30 lb. (13.63 kg)**

Information regarding the contents and levels of metals in this product is available on the internet at <http://www.aapfco.org/metals.html>

P-3-LBL-TO30TF-001

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 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 to 2 glasses of water. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.

### Storage & Disposal:

**Storage:** BioNutrients Total Pak should be stored in its original container, away from heat and direct sunlight. Preferably store in cool areas out of direct sunlight, away from children and pets, feed, and food products. Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment.

**Disposal:** Do not reuse this container. Dispose of contents/container in accordance with local/regional/national regulations.

**Expiration Date:** product guaranteed effective up to 2 years after date stamped on container.

**Condition of Sale and Warranty:** DPH Biologicals warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. Handling, storage and use of the product by Buyer or User are beyond the control of DPH Biologicals and Seller. Risks such as crop injury or other unintended consequences resulting form, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by Buyer or User. IN NO CASE WILL DPH BIOLOGICALS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

The following precautionary statements and pictograms are based on The Globally Harmonized System of Classifications and Labeling of Chemicals (GHS) and are mandated by the Occupational Safety and Health Administration (OSHA).



#### WARNING

Causes skin irritation  
Causes serious eye irritation

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

Wear protective gloves and eye protection.

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

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.



P-F-PWD-TOP-30LB

**Mixing and Application:**

Tank mix BioNutrients Total Pak according to the directions in the table below. For liquid applications, it is recommended to pre-dissolve the product in a small amount of water, creating a slurry, prior to adding to the spray tank. Use of a 100-mesh screen to filter the slurry prior to adding to the spray tank or incorporating a 100-mesh screen in your application system to prevent clogging is recommended. Mix only enough for the immediate application. Do not mix product with bactericides or copper compounds. It is recommended to mix BioNutrients Total Pak with other products the day of use.

<b>GREENHOUSE, NURSERY &amp; LANDSCAPE RATES</b>		
<b>Application</b>	<b>Rate</b>	<b>Directions</b>
Ornamental Tree & Shrub Care	<u>Initial Application:</u> Mix 1 lb. of material per 100 gal of water. Metric: Mix 454 g of material per 378 L of water. <u>Maintenance:</u> Mix ½ lb. of material per 100 gal of water. Metric: 226 g of material per 378 L of water.	Soil inject, drench or spray at appropriate rates to ensure proper soil penetration. 2 inch DBH Caliper Tree requires 1.5 gal solution within the tree drip line area and 1 ft from the flair of the tree.
New Field Plantings and Landscape Transplants	Mix ½ to 1 lb. of material per 100 gal of water. Metric: Mix 227 – 454 g of material per 378 L of water.	Drench or sprench at appropriate rates to ensure proper soil penetration.
Greenhouse Plants, Injection Systems	Mix ¼ – ½ lb. of material per gal stock tank at 1:100. Metric: Mix 113 – 227 g of material per 3.78 L stock tank at 1:100.	Drench or sprench at appropriate rates to ensure proper soil penetration.
Annual Flower and Perennial Beds	Mix ½ – 1 lb. of material per 100 gal of water. Metric: Mix 227 – 454 g of material per 378 L of water.	Drench or sprench at appropriate rates to ensure proper soil penetration.

<b>DRY FERTILIZER INCORPORATION</b>		
Granular Fertilizer Addition	Mix is 1 – 5 lb. per 2000 lb. of fertilizer. 0.5 kg – 2.5 kg per 1000 kg of fertilizer.	Mix last into blender.

<b>TURF APPLICATION</b>		
<b>Application</b>	<b>Rate</b>	<b>Frequency/Directions</b>
Regular Turf Maintenance	Mix ½ – 1 lb. of product into 50 – 100 gal of water per acre. Metric: Mix 567 g – 1.34 kg of product into 470 – 950 L water per hectare.	Apply monthly throughout growing season.
Overseeding, Aeration, Newly Seeded Areas, Sod Overseeding, Aeration, Newly Seeded Areas, Sod	Apply ¼ – 1 lb. of product per 5000 ft <sup>2</sup> . Metric: Apply 114 g – 454 g of product per 465 m <sup>2</sup> .	Apply at time of aeration, sodding or seeding in the seed hopper or with starter fertilizer. Reapply monthly as needed.
Hydroseeding	Mix ¼ – 1 lb. of product per 5000 – 8000 ft <sup>2</sup> per 500 – 800 gal of slurry. Metric: mix 114 – 454 g of product per 465 – 745 m <sup>2</sup> per 1895 – 3025 L.	Add to tank before seed and mulch.
Sand Topdressing or Divot & Ball Mark Repair	Mix ½ – 1 lb. of product per cubic yard. Metric: mix 225 – 454 g of product per 0.75 cubic meter. Hand Repair: Lightly sprinkle into divot hole prior to replacement turf.	Mix thoroughly with sand just prior to use.

<b>FOR BULK SOIL BLENDING</b>	
<u>Bulk Soil (cubic yards)</u>	<u>BioNutrients Total Pak</u>
1	½ – 1 lb.
50	25 – 50 lb.
80	40 – 80 lb.
100	50 – 100 lb.