Vital Earth's®

PHC BioPak®

Material Safety Data Sheet

I. PRODUCT NAME/TRADE NAME:
Vital Earth's® PHC BioPak®
Sizes: Sample, 1 lb/0.4536 kg, 5 lb/2.268 kg

EPA REGISTRATION #: none

CHEMICAL NAME/COMMON NAME:
Leonardite/Humate with beneficial soil

WHIMIS Classification of Product: Is not a controlled product and is not covered under Hazardous Product Act and WHIMIS.

Product use: Soil Treatment, common soil bacteria beneficial for horticulture.

II. HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>%</th>
<th>CAS #</th>
<th>LD50</th>
<th>LC50</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: NE
Specific Gravity (H2O=1): NA
Vapor Pressure

**Vapor Density**
(Air = 1): NE

**% Volatiles by vol.:** NE

**Solubility in Water:** Soluble

**Appearance and Odor:**
Mixture of black, brown, and white crystals, flakes. Slight herbal odor.

**Flash Point/Method:** NA

**pH:** 6.8-7.0

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**IV. FIRE AND EXPLOSION HAZARD DATA**

**Flash point**
(Method Used): NA

**Flammable Limits:** NA

**LEL:** NA

**UEL:** NA

**Extinguishing Media:** Water, fog, foam, alcohol foam, Carbon Dioxide, dry chemicals.
<table>
<thead>
<tr>
<th>Hazardous Combustion Products:</th>
<th>Sensitivity to Mechanical Impact:</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity to Static Discharge:</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Auto Ignition (°C):</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Special Fire Fighting Procedures:</td>
<td>Do not stir up dust with hose streams, as dust cloud is flammable and may be explosive. Wear respiratory protection to avoid breathing dust and smoke. Beware of slippery floors if products becomes wet.</td>
<td></td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards:</td>
<td>May ignite if dust is suspended in air in the presence of an ignition source.</td>
<td></td>
</tr>
</tbody>
</table>
V. REACTIVITY DATA

Chemical Stability: Stable

Incompatibility (Products to Avoid): NA

Hazardous Decomposition or Byproducts: When burned: Carbon Monoxide, Carbon Dioxide, Sulfur Dioxide, Hydrocarbons, small amounts of sulfuric acid.

Hazardous Polymerization: NA

Condition to Avoid: NA

Reactivity, and under what conditions: NA

VI. TOXICOLOGICAL PROPERTIES/HEALTH HAZARD DATA

Route(s) of Entry

Skin: Wear proper personal protective equipment to reduce skin exposure.

Ingestion: Do not ingest. Wash hands and face thoroughly before eating, drinking or smoking.

Inhalation: Wear proper respiratory protection for the exposures encountered.
Eye Contact: Can cause eye irritation. Wear proper eye protection to reduce exposure. If contact occurs, flush eyes with water for a minimum of 15 minutes.

Health Hazard (Acute and Chronic): Acute: Could cause skin rash, with swelling and itching in allergic individuals. Product dust and spray mist may be irritating to nasal and respiratory passages, and/or lungs if inhaled. Chronic: This product produces fine dusts, which may cause delayed respiratory disease if inhaled over a prolonged period of time, continuously or intermittently. Potentially allergenic. Repeated or prolonged skin contact with powder or dissolved product may result in allergic skin rash in sensitive individuals.

Carcinogenicity: IARC monographs NTP OSHA
None Known None Known None Known

Signs and Symptoms of Exposure: Excess inhalation of airborne dusts may result in shortness of breath and reduced pulmonary function. Infection, irritation and/or allergic reaction may result if product contacts eyes, or open wounds. See above under "Health Hazards, Chronic".
Irritancy of product: May result in infection if product comes in direct contact with lungs, eyes or open wounds.

Sensitization to product: NA

Teratogenicity: None

Reproductive Toxicity: None

Mutagenecity: None

Synergistic Products: None

VII. PRECAUTION FOR SAFE HANDLING AND USE

Personal Protective Equipment

Respiratory: When dust is present, use a NIOSH/MSHA approved half- or a full-face respirator with a High Efficiency Particle Aerosol (HEPA) cartridge

Skin: Wear proper personal protective equipment to reduce skin exposure.

Eyes: Use appropriate eye protection e.g.: goggles, to minimize contact with dust.
| Other: | Wear sturdy work clothing and footwear for the specific application. |
| Environmental Hazards: | Dike area to prevent entering drains, sewers or water courses. |
| Engineering controls: | In restricted spaces, use effective ventilation, e.g. Local Air Ventilation. Do not permit excessive accumulation of dust in work areas. Best practice is to clean up with a vacuum equipped with a HEPA filter. |
| Steps to be taken in case material is released or spilled: | Avoid stirring up excessive dust. Wet down spilled material lightly before sweeping to prevent producing airborne dusts. Then sweep up and collect excess material with adequate ventilation, and use the product as directed. |
| Waste Disposal Method: | Dilute excess or spilled product according to usage instructions (0.25 to 1.0 lb per 100 gal.), and apply to trees, grass, or ornamental plants as originally intended. |
| Precaution to be taken in handling and storing: | Product should be kept in a dry place. Avoid creation of respirable dust if possible. Avoid |
ignition of dust. Protect workers as above. Use effective ventilation and dust collection. Avoid eye and skin contact with wet product during use.

Special shipping information: NA

VIII. CONTROL/FIRST AID MEASURES/HEALTH PRECAUTION DATA

Respirator Protections: Use only NIOSH/MSHA - approved respiratory protection for nuisance particles up to 10 times the PEL/TLV. Positive pressure self-contained breathing apparatus should be used for confined space entry and high exposures above the nuisance particulate PEL/TLV.

Ventilation: Local exhaust/general ventilation to control nuisance dust.

Protective/Work Gloves: Rubber, latex, vinyl, or other impervious gloves recommended.

Eye Protection: Safety Goggles or glasses with side shields and brow protection Recommended.

Other Protective Clothing or Equipment: Not required

Work / Hygienic Practices: Wash to remove dust after use
Eyes: Flush with tempered water for at least 20 minutes. Obtain medical attention.

Skin: Wash with soap and water. For caustic burns to skin consult a doctor.

Ingestion: Drink large amounts of water. Do not induce vomiting. Seek immediate medical attention.

Gross inhalation of dust: Remove victim to fresh air and administer CPR if necessary.

SUPPLEMENT INFORMATION: THIS BACTERIA CONTAINED IN THIS PRODUCT ARE STRAINS OF TYPICALLY HARMLESS SOIL AND WATER BACTERIA, AND DO NOT CAUSE INFECTIONS UNDER NORMAL CIRCUMSTANCES. PROPER PRECAUTIONS ARE ADVISED TO PREVENT INFECTION OF OPEN WOUNDS, INHALATION OF EXCESSIVE AMOUNTS OF DUST AND EYE IRRITATION. THE PROPER HYGIENE PRACTICES NECESSARY TO PREVENT HEALTH HAZARDS FROM ANY NATURALLY
IX. SPECIAL PRECAUTIONS

Keep out of reach of children. Do not wash down sewer system. Read and follow all label instructions.

X. REGULATORY DATA

SARA HAZARD CLASS: Acute

SARA 313: NO

SARA 302: NO

TPQ:

CERCLA: NO

RQ:

RCRA: NO

NFPA HAZARD RATING:

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>[0]</td>
<td>[0]</td>
<td>[ ]</td>
</tr>
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NFPA HAZARD RATING SCALE:

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = Minimal</td>
<td>1 = Slight</td>
<td>2 = Moderate</td>
</tr>
<tr>
<td>3 = Serious</td>
<td>4 = Severe</td>
<td></td>
</tr>
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</table>

HMIS CODES:

HMIS HAZARD RATING SCALE:
Health: [1] 0 = Minimal 3 = Serious
Fire: [0] 1 = Slight 4 = Severe
Reactivity: [0] 2 = Moderate

XI. PREPARATION DATE OF MSDS

Prepared by: Conscious Earthworks, LLC
JAHOVIAH EARTH, LLC/Dba: PHOENIX ORGANICS
Phone: 503-493-2784
541-535-1134
Date: 01/15/08

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