# Vital Earth’s®

## All Purpose Guano Mix

### 3-2-2

**Material Safety Data Sheet**

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**I. PRODUCT NAME/TRADE NAME:** Vital Earth’s® All Purpose Guano Mix

**Emergency Telephone Number:** 503-493-2784

**Information Telephone Number:** 503-493-2784

**Sizes:** Sample, 4.4 lb/1.9958 kg, 22 lb/9.9790 kg, 44 lb/19.958 kg

**Date Prepared:** 08/10/12

**EPA REGISTRATION #:** None

**CHEMICAL NAME/COMMON NAME:** Seabird Guano/Bat Guano

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

**Product use:** Soil Treatment/Fertilizer (Natural)

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**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>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica (Quartz) / fine sand. May contain up to:</td>
<td>55</td>
<td>140808-60-7</td>
<td>N/A</td>
<td>N/A</td>
<td>0.1 mg/m^3</td>
<td>(BC-WCB)</td>
</tr>
</tbody>
</table>
The proportion of the silica that is in the respirable size range (<10 nm particle size) varies, but is always less than 0.005 percent of the total sand by weight. NIOSH recommends a Permissible Exposure Limit (PEL) of 0.1 mg/m^3 for respirable free silica.

### III. PHYSICAL/CHEMICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>4046 F, 2230 C</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>2.65</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&gt;1832 F, &gt;1000 C</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>2930 F, 1610 C</td>
</tr>
<tr>
<td>Vapor Pressure (mmHg)</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>Variable</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate + 1)</td>
<td>NA</td>
</tr>
<tr>
<td>% Volatiles by vol.</td>
<td>NE</td>
</tr>
<tr>
<td>Density</td>
<td>Variable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Beige/Brown/Grey colored dry material, slight guano odor</td>
</tr>
<tr>
<td>Flash Point/Method</td>
<td>NA</td>
</tr>
<tr>
<td>pH</td>
<td>6-7</td>
</tr>
</tbody>
</table>

### IV. FIRE AND EXPLOSION HAZARD DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>NA</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>This material is slightly combustible due to</td>
</tr>
<tr>
<td>(Method Used)</td>
<td>NA</td>
</tr>
</tbody>
</table>
Extinguishing Media: Water, Carbon Dioxide, residual protein. Direct
Dry Chemical Foam flame results in short
lived sustained flame.
Dust explosion

Hazardous Combustion conditions unknown.

Products: Dioxides from fire Use water to extinguish.

Sensitivity to LEL: NA
Mechanical Impact: NA
UEL: NA

Sensitivity to Static

Discharge: NA Conditions of Flammability: Will burn in a fire

Auto Ignition (C): NA

Special Fire Fighting

Procedures: Treat as class A. Fight
fire upwind. Wear
positive pressure self-
contained breathing
apparatus and full
protective equipment.
Do not breathe smoke
or spray mist. Avoid
fallout and runoff. Dike to prevent entering drains, sewers, or water courses. Evacuate people downwind from fire.

Unusual Fire and Explosion Hazards: Avoid production of an extremely dusty air space in areas of local burning or electrical sparking.

V. REACTIVITY DATA

Chemical Stability: Stable

Incompatibility (Products to Avoid): Strong oxidizing agents, fire, water

Hazardous Decomposition or Byproducts: Carbon dioxide, carbon monoxide

Hazardous Polymerization: Will Not Occur

Condition to Avoid: Exposure to heat and acid

Reactivity, and under what conditions: Reacts with inorganic acids, giving carbon dioxide gas. Reacts with water forming
VI. TOXICOLOGICAL PROPERTIES/HEALTH HAZARD DATA

Route(s) of Entry

Skin: Wear proper personal protective equipment to reduce skin exposure. Avoid open wound. No absorption.

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 of Chronic): NA

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

Signs and Symptoms of Exposure: NA
Effects of Chronic Exposure to Product: Excessive inhalation of crystalline silica dust may result in respiratory disease, including silicosis, lung cancer, pneumonoconiosis and pulmonary fibrosis. The International Agency for Research on Cancer (IARC) has evaluated in their Monograph Volume 68 (1997) that crystalline silica quartz is a human carcinogen.

Irritancy of Product: Individuals with pulmonary and/or respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation, should be precluded from exposure.

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: Use gloves impervious to moisture. The use of a barrier cram is recommended.

Eyes: Use appropriate eye protection, e.g.: goggles, to minimize contact with dust. Full protective hood is recommended for sandblasting.

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:
If uncontaminated, collect for reuse or disposal.
Use a clean up system which does not create dust, e.g. a vacuum equipped with a HEPA filter. If contaminated or not required for reuse, dispose in approved landfill in accordance with local regulations.

Waste Disposal Method:
If uncontaminated, dispose as a non-metallic Mineral. If contaminated, use appropriate method for containment with applicable local regulation(s).

Precaution to be taken in handling and storing:
Product should be kept in a dry place. Avoid creation of respirable dust if possible. Protect workers as above. Use effective ventilation and dust collection. Avoid eye and skin contact with wet product during use.

Special shipping information: Protect from moisture.
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/give oxygen with artificial respiration if necessary.

IX. SPECIAL PRECAUTIONS

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

X. REGULATORY DATA
SARA HAZARDOUS CLASS: Acute

SARA 313: NO

SARA 302: NO

TPQ:

CERCLA: NO

RQ:

RCRA: NO

NFPA HAZARD RATING:

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

HMIS CODES:

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

XI. PREPARATION DATE OF MSDS

Prepared by: Conscious Earthworks, LLC
Phone: 503-493-2784
Date: 08/10/12

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