

Vital Earth's®

Mycorrhizal

Material Safety Data Sheet

I. PRODUCT NAME/TRADE NAME:

Vital Earth's® Mycorrhizal

Sizes: Sample 2.25 oz, 4.4 lb/1.9958 kg,
22 lb/9.9790 kg

EPA REGISTRATION #: None

CHEMICAL NAME/COMMON NAME:

Endomycorrhizal and ectomycorrhizal
fungi spores. Derived from Dacite
(glacial rock powder).

WHIMIS Classification of Product:

Product use:

Emergency Telephone Number:

503-493-2784

Information Telephone Number:

503-493-2784

Date Prepared: 02/11/11

Is not a controlled product and is not covered
Under Hazardous Product Act and WHIMIS.

Growing Media

II. HAZARDOUS INGREDIENTS

Ingredient	%	CAS #	LD50	LC50
May contain up to				
Crystalline Silica (Quartz)	55	140808-60-7	N/A	N/A

Ingredient	OSHA	ACGIH	Other
Fine Sand	0.1 mg/m ³	.01 mg/m ³	(BC-WCB)

(as Crystalline Silica, Quartz)

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/m³ for respirable free silica.

III. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	4046 degrees F 2230 degrees C	Specific Gravity (H ₂ O = 1)	2.65
Vapor Pressure (mmHg):	N/A	Melting Point:	>1832 degrees F >1000 degrees C
Vapor Density (Air = 1):	N/A	Freezing Point:	2930 degrees F 1610 degrees C
Solubility in Water:	<1%	Evaporation Rate	
	Carrier dacite soluble (Butyl Acetate + 1) and mycorrhizal insoluble		N/A

Appearance and

Odor: Light brown micronized.
Slightly earthen/natural
odor.

pH: 6-7

IV. FIRE AND EXPLOSION HAZARD DATA

Flash point Flammable Limits: N/A

(Method Used): N/A

LEL: N/A

Extinguishing Media: Water, CO2, dry

chemical foam UEL: N/A

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
Hazardous Decomposition or Byproducts:	Carbon dioxide, carbon monoxide
Hazardous Polymerization:	Will Not Occur
Condition to Avoid:	Exposure to acid
Reactivity, and under what conditions:	Reacts with inorganic acids, giving carbon dioxide gas. Reacts with water forming polymerized silicates and calcium hydroxide.

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):	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
Yes	Yes	Yes

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.”

Possible stomach disorders if taken orally, possible lung injury if breathed repeatedly.

Effects of Chronic Exposure to Product:

Excessive inhalation of crystalline silica dust may result in respiratory disease, including silicosis, lung cancer, pneumoconiosis 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:

May result in infection if product comes in direct contact with lungs, eyes or open wounds. 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:

N/A

Teratogenicity:

None

Reproductive Toxicity:

None

Mutagenicity:

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. 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. 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:

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

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 to fresh air and administer artificial Respiration if required.

IX. SPECIAL PRECAUTIONS

Keep out of reach of children. Read and follow all label instructions.

XI. PREPARATION DATE OF MSDS

Prepared by:	Conscious Earthworks, LLC
Phone:	503-493-2784
Date:	02/11/11

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