

# Material Safety Data Sheet

**Last Update:** August 11, 2008

**Identity: PHC™ Nursery Media Mix Inoculant**

## Section I -- Manufacturer

Plant Health Care, Inc.  
440 William Pitt Way  
Pittsburgh, PA 15238

**Emergency Phone #:** 800-421-9051  
**Phone # for Information:** 412-826-5488

## Section II -- Hazardous Ingredients/Identity Information

Potentially Hazardous Components	%	OSHA PEL	NIOSH	ACGIH
Phytoestrogenic compound (formononetin)	0.22%	---	---	
Beneficial soil bacteria in spore form		--	--	--
Humate (Coal Dust, Humic Acids)	42%	1.5 mg/m <sup>3</sup>	-	0.1 mg/m <sup>3</sup>
Silica (silica, clay, and diatom. earth)	1.25% - 3.5%	0.1 mg/m <sup>3</sup>	50µg/m <sup>3</sup>	
Natural fungus spores	<0.1%	-	-	-
Nuisance Dust				
Respirable (TWA)		5 mg/m <sup>3</sup>		10 mg/m <sup>3</sup>
Total (TWA)		15 mg/m <sup>3</sup>		10 mg/m <sup>3</sup>

### ***Section III -- Physical/Chemical Characteristics***

<b>Boiling Point:</b>	NA	<b>Specific Gravity:</b>	NA
<b>Vapor Pressure:</b>	NA	<b>Melting Point:</b>	NA
<b>Vapor Density:</b>	NA	<b>Evaporation Rate:</b>	NA

**Solubility in Water:** Most components Insoluble

**Appearance and Odor:** Mixed powders and granules, slight odor of seaweed.

### ***Section IV -- Fire and Explosion Hazard Data***

**Flash Point:** No Data      **Flammable Limits; LEL:** No Data; **UEL:** No Data

**Extinguishing Media:** Water, fog, or foam.

### Special Fire Fighting Procedures:

Wear respiratory protection to avoid breathing dust and smoke.

### Unusual Fire and Explosion Hazards:

Take precautions against explosion hazard due to buildup of explosive airborne concentrations of this dust. Avoid stirring up dust with hose stream. When burned, typical components of smoke such as CO, CO<sub>2</sub>, SO<sub>2</sub>, hydrocarbons, are released.

## Section V -- Reactivity Data

<b>Stability:</b> Chemically stable	<b>Conditions to Avoid:</b> Avoid explosive dust concentrations.
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## **MSDS -- PHC™ VAM Media Mix Inoculant**

**Incompatibility (Materials to avoid):** None Known

**Hazardous Decomposition or Byproducts:** When burned, typical components of smoke such as CO, CO<sub>2</sub>, SO<sub>2</sub>, hydrocarbons, are released.

**Hazardous Polymerization:** Will Not Occur

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### **Section VI -- Health Hazard Data**

**Route(s) of Entry:** Inhalation--yes

Skin--No

Ingestion--Yes

#### **Health Hazards (Acute and Chronic):**

**Acute:** Excessive inhalation of dust may result in shortness of breath and reduced pulmonary function. Persons with acute allergies to molds or other fungus could become asthmatic, with wheezing and breathing difficulties (rare), or could experience typical hayfever symptoms.

Contact with eyes or open wounds may result in irritation.

**Chronic:** Sensitive individuals may develop an allergic sensitivity (rare) to the dust via repeated skin contact or inhalation resulting in contact dermatitis (rare) or sinus irritation. Contains some silica. May cause delayed respiratory disease if dust is inhaled repeatedly over a prolonged period of time.

This product contains a small amount (0.22% by weight) of an insoluble isoflavanoid compound (formononetin) classed as a phytoestrogen, which can mimic the effects of the hormone estrogen in mammals. Avoid prolonged skin contact to preclude the possibility of skin absorption of the hormonal compound.

**Carcinogenicity:** IARC Monographs: Yes (Crystalline Silica). On the evaluation of the Carcinogenic Risk of Chemicals to Humans (Vol. 42, 1987), IARC concludes that there is "limited evidence" of the carcinogenicity of crystalline silica to humans. IARC classification 2A.

#### **Signs and Symptoms of Exposure:**

Sneezing, stuffed or runny nose, hayfever symptoms in allergic individuals. Persons with acute allergies could become asthmatic, with wheezing and breathing difficulties (rare). Excessive inhalation of dust may result in shortness of breath and reduced pulmonary function. Allergic sensitivity to skin contact may result in itching, swelling, or rash (rare).

**Medical Conditions Generally Aggravated by Exposure:** Hayfever, mold allergies. Individuals with pulmonary and respiratory disease including, but not limited to, asthma and bronchitis, should be precluded from exposure to dust. Contact with eyes or open wounds may result in irritation and/or infection. Persons having medical conditions making them sensitive to exposure to common bacteria (such as individuals with AIDS, or those taking some anti-rejection drugs, or individuals receiving chemotherapy) should consult with their physician before handling bacterial products.

#### **Emergency and First Aid Procedures:**

If skin contact occurs, wash with soap and water. Apply antiseptic if material contacts open wounds. Watch for infection. If material gets into eyes, do not rub them, rinse with copious amounts of water, and see a physician to remove granular particles that fail to wash out. Watch for allergic reaction or eye infection. In cases of respiratory distress, remove individual from

## ***MSDS -- PHC™ VAM Media Mix Inoculant***

exposure and get medical assistance. Administer oxygen if needed. If hayfever symptoms develop, remove individual from exposure. If wheezing or breathing difficulties develop, remove the individual to fresh air. Give oxygen or artificial respiration if necessary. Get medical attention. If material is ingested, drink water, induce vomiting, call a physician. Ingredients are not expected to be particularly toxic, but irritation of intestinal tract is expected if significant amounts are ingested. Treat symptoms.

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### ***Section VII -- Precautions for Safe Handling and Use***

**Steps to be Taken in Case Material is Released or Spilled:** Wet down, and sweep up carefully to avoid stirring up dust. Avoid breathing dust. If spilled in residential living quarters or dining area, clean area with soap and water.

**Waste Disposal Method:** Excess material may be used as usual, or mixed with the soil at the base of trees or in flower beds.

**Precautions to be Taken in Storage/Handling:** Avoid breathing dust. Avoid stirring up dust. Handle under conditions of adequate ventilation. Floors will become very slippery if spilled material gets wet. Wear gloves when handling. Avoid acids and extreme heat.

**Other Precautions:** Wash hands after handling, and before eating, drinking or smoking. Use normal hygiene practices.

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### ***Section VII -- Control Measures***

**Respiratory Protection:** Dust Mask.

**Ventilation:** Use adequate ventilation to keep dust levels below safe limits.

**Protective Gloves:** Nonporous gloves.

**Eye Protection:** Safety Glasses recommended if there is potential for eye contact.

**Other Protective Clothing or Equipment:** Apron recommended.

**Work/Hygienic Practices:** The bacteria contained in this product are strains of typically harmless soil and water bacteria, are not involved with disease or infections under normal circumstances. However, reasonable precautions are in order. Handle as you would rich, dark soil or compost: keep it out of your mouth, eyes, lungs, and broken skin. Wash hands after handling, and before eating, drinking, or smoking. Avoid stirring up dust. If spilled in residential living quarters or dining area, clean area with soap and water.