

# Material Safety Data Sheet

Last Updated: August 11, 2008

Identity: **PHC™ Injectable for Trees**

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## Section I -- Manufacturer

Plant Health Care, Inc.	<b>Emergency Phone #:</b>	800-421-9051
440 William Pitt Way	<b>Phone # for Information:</b>	412-826-5488
Pittsburgh, PA 15238		

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## Section II -- Hazardous Ingredients/Identity Information

Hazardous Components	%	OSHA PEL	ACGIH TLV
Natural fungal spores and dry plant tissue	6.5%	15 mg/m <sup>3</sup> --nuisance dust-- (much less for allergic individuals.)	10 mg/m <sup>3</sup>
Common soil bacteria beneficial for horticulture		--	--
Nuisance Dusts			
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>
Phytoestrogenic compounds (Part B)	0.44%	---	---

HMIS: Health: 1    Flammability: 1    Reactivity: 0    Protection: F

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## 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:** Insoluble  
**Appearance and Odor:** Dark grey brown powder with food-like odor.

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## Section IV -- Fire and Explosion Hazard Data

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

**Extinguishing Media:**      Water, foam, mist. Avoid stirring up dust.

### Special Fire Fighting Procedures:

Wear respiratory protection to avoid breathing dust and smoke. Avoid stirring up flammable dust.

### Unusual Fire and Explosion Hazards:

Take precautions against explosion hazard due to excessive buildup of explosive airborne concentrations of burnable spore dust and plant powder.

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## MSDS PHC™Injectable for Trees

### Section V -- Reactivity Data

**Stability:** Chemically stable      **Conditions to Avoid:** Avoid explosive dust concentrations.  
**Incompatibility (Materials to avoid):** Disinfectants and solvents will kill the active biological ingredients.

**Hazardous Decomposition or Byproducts:** None Known

**Hazardous Polymerization:** Will Not Occur

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### Section VI -- Health Hazard Data

**Route(s) of Entry:** Inhalation--yes      Skin--Yes      Ingestion--Yes      Eyes--yes

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

**Acute:** Red and irritated eyes upon contact. Possible eye infection. Excessive inhalation of dust may result in mild symptoms of hay fever or respiratory irritation. Persons with acute allergies to molds or fungus spores could become asthmatic, with wheezing and breathing difficulties (rare). Allergies could develop over time in some individuals. Skin irritation may occur with prolonged skin contact. Repeated or prolonged skin contact could result in allergic skin rash. Contact with open wounds or broken skin could result in irritation or infection.

**Chronic:** Persons with mold allergies could experience hayfever with sneezing and nasal congestion. Allergies could develop over time, with repeated excessive exposure, theoretically. Repeated and prolonged breathing of excessive dust concentrations could lead to pulmonary diseases. Mild to moderate skin irritation may occur in sensitive individuals with prolonged skin contact.

This product contains a small amount (1% 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:** No.

**Signs and Symptoms of Exposure:** Excessive concentrations of dusts in air could make breathing difficult. Sneezing, stuffed or runny nose, hayfever symptoms could occur in allergic individuals. Persons with acute allergies could become asthmatic, with wheezing and breathing difficulties (rare). Skin or respiratory allergies could develop over time. Individuals with pulmonary and respiratory disease including, but not limited to, asthma and bronchitis, should be precluded from exposure to dust.

**Medical Conditions Generally Aggravated by Exposure:** Hayfever, mold allergies, pulmonary afflictions, immune deficiencies. Persons with seriously weakened or compromised immune systems, such as persons with AIDS, those taking anti-rejection drugs, or persons receiving chemotherapy should consult their physician before handling bacterial products.

#### Emergency and First Aid Procedures:

If hayfever symptoms develop, remove individual from exposure. If wheezing or breathing difficulties develop, remove the individual to fresh air. Give oxygen if available. Call a

## MSDS PHC™Injectable for Trees

physician. If breathing ceases, give artificial respiration, call a physician, get to a hospital. If material is ingested, drink water, induce vomiting, call a physician. If product contacts open wounds or broken skin, wash with water, and apply an over-the-counter topical antiseptic. If infection develops, see a physician.

**Other Health Related Data:** This product contains a small amount (0.22% by weight) of an insoluble isoflavanoid compound classed as a phytoestrogen, which can mimic the effects of the hormone estrogen in mammals. (The isoflavanoid is reportedly 10,000 to 15,000 times less potent hormonally than estradiol.) This compound occurs naturally in numerous foods including soy beans, fruits and grains. Still, avoid prolonged skin contact or inhalation to preclude the possibility of absorption of the hormonal compound.

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

**Steps to be Taken in Case Material is Released or Spilled:** Sweep up spilled material and use as directed. Avoid stirring up dust. Avoid breathing dust. Handle under conditions of adequate ventilation. Wear an approved respirator or dust mask where dusty conditions occur. If spilled in residential living quarters or dining area, clean area with water containing a disinfectant. Residue will not harm drains or sewers. Beware of slippery floors when material becomes wet, or if spillage occurs in wet areas. Wear nonporous gloves when handling. Wash hands after handling.

**Waste Disposal Method:** Excess spilled material may be collected and used as directed. There are no ingredients which are hazardous to the natural environment.

**Other Precautions:** Use good hygiene practices. Wash hands after handling. If spilled on clothes, wash separately from regular clothes. If applied as an aqueous spray, avoid breathing mist.

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### *Section VII -- Control Measures*

**Respiratory Protection:** Under normal use, the material is added to water, after which there is no longer a dust inhalation problem. However, dust may be problem during production. Use a dust mask if needed. If dust is a significant problem, use respirator for fine particulates <10 µm diameter: HEPA Filter Cartridge Type H. If applied as an aqueous spray, avoid breathing mist.

**Ventilation:** Use adequate ventilation to keep dust levels below allowable limits. Hood or other mechanical exhaust is recommended if handling indoors.

**Protective Gloves:** Wear nonporous gloves.

**Eye Protection:** Wear protective goggles if eye contact is possible..

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

**Work/Hygienic Practices:** Avoid stirring up dust. Wash hands after handling. If spilled on clothes, wash separately from regular clothes. If dissolved product is applied by spray, avoid breathing mist. See Medical Conditions section and First Aid section on page 2.