# **Material Safety Data Sheet**

**PHC Ecto Spore Spray Identity: Date Prepared:** August 11, 2008

Section I -- Manufacturer

Plant Health Care, Inc. **Emergency Phone #:** 800-421-9051 440 William Pitt Way **Phone # for Information:** 412-826-5488

Pittsburgh, PA 15238

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### Section II -- Hazardous Ingredients/Identity Information

OSHA PEL ACGIH TLV **Hazardous Components** 

Live Bacteria beneficial to plants.

Live spores of PT mycorrhizal fungus

No reportable quantities of hazardous chemical ingredients are present.

No toxic chemicals subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.

### Section III -- Physical/Chemical Characteristics

**Boiling Point:** NA **Specific Gravity:** NA Vapor Pressure: NA **Melting Point:** >200 FVapor Density: heavier than air **Evaporation Rate:** NA

Solubility in Water: dispersible

Appearance and Odor: brown speckled powder, mild 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 fog, foam, alcohol foam, CO<sub>2</sub>, dry chemical

#### **Special Fire Fighting Procedures:**

Fire fighters should wear butyl rubber boots, gloves, and a NIOSH/MSHA approved selfcontained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Not a fire or explosion hazard when stored under normal conditions.

### Section V -- Reactivity Data

**Stability:** Chemically stable **Conditions to Avoid:** High heat sources, sparks, open flame. **Incompatibility (Materials to avoid):** Long term storage in direct contact with reactive metals such as aluminum, zinc, copper, nickel, magnesium, etc. may react to release hydrogen gas which can form explosive mixtures with air. Aqueous reaction with strong alkalis can create heat. Other materials to avoid include strong oxidizing agents, strong acids, and strong reducing agents.

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**Hazardous Decomposition or Byproducts:** Burning may release noxious fumes and gases such as carbon monoxide, nitrous oxides, acetic acid, sulfuric acid, sulfur dioxide, or other toxic compounds depending on the other combustion sources.

**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):**

<u>Acute</u>: Prolonged or repeated <u>skin contact</u> may irritate skin or eyes; Could cause skin rash, with swelling and itching in allergic individuals. Direct <u>contact with eyes</u> or open wounds could result in infection. Avoid skin and eye contact. <u>Inhalation</u> of dust or mist could introduce the bacteria and fungi spores contained in the product into the respiratory tract, where allergic responses, irritation, or infection may occur in sensitive individuals. Some individuals could theoretically experience hayfever symptoms. <u>Ingestion</u> of large quantities may be harmful. May result in infection if product comes in direct contact with lungs, eyes or open wounds. Allergies may develop over time in some individuals with repeated exposure.

<u>Chronic</u>: Prolonged inhalation of dust may lead to allergic sensitization or respiratory tract irritation.

**Note**: The bacteria and fungi used in this product are common soil microbes, and are not considered pathogenic, that is, they are not involved in causing disease in plants, animals, or man. However, persons with a compromised immune system should contact their physician before handling microbial products.

Carcinogenicity: No Data

Signs and Symptoms of Exposure: See health hazards, above.

Medical Conditions Generally Aggravated by Exposure: Individuals with any pulmonary and/or respiratory disease such as asthma, bronchitis, hayfever, etc. should not be exposed to dust or mist. May provoke asthmatic response in persons with asthma who are sensitive to airway irritants. Eyes and open wounds should not be contacted by product dust or spray mist. Can cause allergic skin reaction in some individuals. Could cause hayfever symptoms (theoretically) in some individuals with similar allergies. Persons with compromised immune systems, such as those with advanced AIDS, or those undergoing chemotherapy should discuss with their physician before handling microbial products. Risk of both respiratory, eye, or wound infection is increased for persons with weakened immune systems.

**Emergency and First Aid Procedures:** Eyes: Flush with water for at least 15 minutes. If irritation persists, call a physician. Watch for possible infection.

<u>Skin:</u> Wash affected area with soap and water. Antibacterial soap is recommended. If material contacts wounded or broken skin, treat wound with an approved antiseptic to prevent infection. If irritation develops, consult a physician. Remove and launder contaminated clothing before reuse. If allergic reaction or infection develops, seek medical attention.

Inhalation: If inhaled, move to fresh air. If difficulty in breathing persists, administer oxygen,

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and get immediate medical attention. Watch for possible development of respiratory infection. <u>Ingestion</u>: Seek immediate medical attention. Unless advised otherwise, induce vomiting. Do not give anything by mouth if person is unconscious or nearly so, has no gag reflex, or is having convulsions.

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

**Steps to be Taken in Case Material is Released or Spilled:** Avoid stirring up 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. 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.

**Waste Disposal Method:** Collect spilled material and use as directed: mix with water and drench soil at base of pine or oak trees as with normal use. Otherwise, disposal must be in accord with federal, state, and local regulations.

**Precautions to be Taken in Handling or Storage:** Avoid stirring up dust. Avoid unnecessary skin contact. Do not breath dust, mist, or fumes.

**Other Precautions:** Eye wash fountains should be readily available, and easily accessible if eye contact with dust or mist is likely.

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#### Section VII -- Control Measures

**Respiratory Protection:** Dust mask, particularly during application; avoid spray techniques which create fine mists in the breathing zone.

**Ventilation:** Use local exhaust for liquid dissolved material, and filtered exhaust for dry, dusty material. Do not breathe dusts, mists, or fumes. Avoid unnecessary skin contact. Do not freeze.

**Protective Gloves:** Rubber, latex, vinyl, or any gloves without pores.

**Eye Protection:** Chemical goggles or face shield is recommended when spraying.

**Other Protective Clothing or Equipment:** Coveralls, apron, gloves, boots as necessary to prevent skin contact. Open wounds or disruptions in the skin should be covered with a chemical-resistant patch to minimize absorption risks and infection risks. Clean clothing should be worn daily to avoid possible long-term buildup of the product leading to chronic overexposure.

Work/Hygienic Practices: The bacteria contained in this product are strains of typically harmless soil and water bacteria, and do not cause 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. Do not eat, drink, or smoke when handling product. Wash hands after handling. If spilled on clothes, wash separately from other clothes. If material contacts wounded or broken skin, was affected area with antibacterial soap and water. Treat wound with an antiseptic to prevent infection. If spilled on clothes, wash as

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usual. Clean clothing should be worn daily to avoid possible long-term buildup of the product leading to chronic overexposure. Clothes heavily soiled with the product should be washed separately from other clothes.