



## MSDS—PHC Palm Saver

**Unusual Fire and Explosion Hazards:** Dispersion of fine dust in the air may form an explosive mixture. If decomposed with heat, will give off toxic fumes of ammonia and formaldehyde, sulfur oxides, and above 1800 F, phosphorus oxides and fluoride gases.

---

### *Section V -- Reactivity Data*

**Stability:** Chemically stable      **Conditions to Avoid:** Avoid stirring up dust. Avoid ignition of dust.

**Incompatibility (Materials to avoid):** Some ingredients of this product may ignite on contact with hydrogen trisulfide. Some ingredients may react violently when mixed with hydrogen peroxide, ethylene oxide, nitric acid, calcium hypochlorite, magnesium, or fluorine, or when heated with powdered aluminum, calcium disilicate, magnesium, or metal acetylides. Acids: Several ingredients are soluble in aqueous acids generating heat. Incompatible with phosphorus, maleic anhydride, and ethoxyethyl alcohols with ether.

### *Section V -- Reactivity Data*

**Hazardous Decomposition or Byproducts:** When burned: CO, CO<sub>2</sub>, SO<sub>2</sub>, Hydrocarbons, small amounts of sulfuric acid.

**Hazardous Polymerization:** Will Not Occur

---

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

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

**Target Organs:** Upper respiratory system.

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

**Acute:** May irritate skin or eyes, nose throat or respiratory system; abrasive or corrosive action of dust can injure the eye. May result in allergic response, or infection if product comes in direct contact with open wounds. Product dust or spray mist may be irritating to nasal and respiratory passages, and/or lungs if inhaled. Inhalation: Avoid breathing dust. Dust may be slightly irritating with symptoms of sore throat and coughing. Levels above 10 µg/m<sup>3</sup> of suspended sulfates in the air may cause an excess risk of asthmatic attacks in susceptible persons. Contains some manganese compounds, which can cause localized inflammation if small particles become embedded into the skin. Excessive inhalation of manganese compounds (above allowable levels) can produce, pleuritis, and/or fatal pneumonia. Ingestion of significant amounts may cause diarrhea and abdominal pain.

**Chronic:** This product produces fine dusts, which may cause delayed respiratory disease or allergy if inhaled over a prolonged period of time, continuously or intermittently. Potentially allergenic. Avoid breathing dust. Prolonged or repeated contact may cause skin irritation in individuals sensitive to mineral dust. Repeated or prolonged inhalation of magnesium (Mg) dust has been reported to cause increased incidence of digestive disorders. Long-term exposure to excessive levels of dust containing significant amounts of manganese (Mn) compounds can cause a Parkinson Disease-like syndrome or psychosis. Target Organs of manganese (Mn) toxicity include respiratory

## MSDS—PHC Palm Saver

system, central nervous system, blood, kidneys.

**Carcinogenicity:** This product may contain a small amount of **crystalline silica**. IARC Monographs concludes that there is "limited evidence" of the carcinogenicity of crystalline silica to humans. IARC Classification 2A: probable human carcinogen. The National Toxicology Program (NTP) lists respirable crystalline silica among substance which may "reasonably be anticipated to be carcinogens."

**Signs and Symptoms of Exposure:** Eye irritant. Excess inhalation of dust may result in irritation of the throat, and respiratory system, or cause shortness of breath, and reduced pulmonary function. Infection could result if product contacts open wounds. Can cause eye irritation or allergic response. See above under "Health Hazards, Chronic". If ingested in sufficient quantity, may cause gastrointestinal disturbance, including nausea, abdominal pain, diarrhea, and fluorosis. Contains some manganese compounds, which can cause localized inflammation if small particles become embedded into the skin. Chronic exposure to manganese compounds (usually by inhalation) may lead to Parkinson's; asthenia, insomnia, mental confusion; metal fume fever: dry throat, cough, chest tightness, dyspnea (breathing difficulty), rales, flu-like fever; low-back pain; vomiting; malaise (vague feeling of discomfort); lassitude (weakness, exhaustion); kidney damage.

**Medical Conditions Generally Aggravated by Exposure:** Individuals with any pulmonary and/or respiratory disease such as asthma, bronchitis, emphysema, etc. should not be exposed to dust or mist. Interactions with medications may occur. May provoke asthmatic response in persons with asthma who are sensitive to airway irritants. Contact with open wounds could potentially result in irritation or infection. Individuals with kidney impairment may be at increased risk. Persons with compromised immune systems, such as those with AIDS, or those undergoing chemotherapy, or receiving anti-rejection drugs should consult with their physician before handling bacterial products.

**Emergency and First Aid Procedures:** If material is ingested, drink water, induce vomiting, call a physician. If inhaled, remove to fresh air, give oxygen if needed; give artificial respiration if needed, get medical attention. In case of skin contact, wash area with soap and water. In case of contact with an open wound, wash with soap and water, and use an over-the-counter approved topical antiseptic. If material gets into eyes, flush with water, see physician if discomfort persists.

---

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

**Steps to be Taken in Case Material is Released or Spilled:** Avoid stirring up excessive dust. Sweep up and collect excess material with adequate ventilation, and use the spilled product as originally intended. Then rinse area with water. Product does not exhibit any characteristics of a hazardous waste, and it is suitable for landfill disposal. Follow all local, state, and federal regulations regarding disposal.

**Waste Disposal Method:** Collect excess and apply to plants as originally intended. Material does not contain pesticides.

**Precautions to be Taken in Case Material is Released or Spilled:** Avoid stirring up excessive dust. Avoid ignition of dust. Avoid inhaling dust. Gloves are recommended.

## MSDS—PHC Palm Saver

**Other Precautions:** Wash hands after handling. Use normal hygiene practices. If spilled on clothes, wash as usual.

---

### *Section VII -- Control Measures*

**Respiratory Protection:** Dust mask. Use NIOSH/MSHA approved respirator where TLV limits for crystalline silica may be exceeded.

**Ventilation:** Any means adequate to avoid buildup of concentrations above the TLV or PEL, or of explosive airborne concentrations, such as mechanical ventilation, hood, good engineering controls, etc.

**Protective Gloves:** Rubber, latex, vinyl, or other gloves recommended.

**Eye Protection:** Safety goggles recommended.

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

**Work/Hygienic Practices:** Wash hands after handling. If spilled on clothes, wash as usual.

---