

## MATERIAL SAFETY DATA SHEET

Product: PFG and PFG Detail  
Chemical Type: Coating containing ZnCdS:Ag

Issue Date JANUARY 9, 2007

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### INGREDIENTS

<u>MATERIAL</u>		<u>OSHA</u> <u>PEL</u>	<u>ACGIH</u> <u>TLV</u>	<u>% BY WT.</u>
*Cadmium Sulfide	CAS# 1306-23-6	OSHA Action Level OSHA PEL	0.0025 mg/m <sup>3</sup> 0.0050 mg/m <sup>3</sup>	40.0%
*Zinc Sulfide	CAS# 1314-98-3	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	60.0%
*Silver	CAS# 7440-22-4	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>	<0.1%

**\*NOTE: THIS MATERIAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986 AND CFR 40 PART 372.**

### PHYSICAL/CHEMICAL CHARACTERISTICS

<b>Boiling Point:</b>	N/A	<b>Specific Gravity:</b>	N/A
<b>Vapor Pressure (mm Hg):</b>	N/A	<b>Melting Point:</b>	N/A
<b>Vapor Density (Air=1):</b>	N/A	<b>Evaporation Rate:</b>	N/A
<b>Solubility in Water:</b>	Insoluble		
<b>Appearance and Odor:</b> Plastic sheet with yellow green coating, odorless			

### FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** N/A                      **Flammable Limits:** N/A                      **LEL:** N/A                      **UEL:** N/A  
**Extinguishing Media:** Use extinguishing media suitable for the surrounding fire.  
**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus.  
**Unusual Fire and Explosion Hazards:** When material is exposed to high temperatures it may produce oxides or sulfur and/or hydrogen sulfide as well as normal organic combustion products.

### REACTIVITY DATA

**Stability:** Material is unstable at high temperatures in air.  
**Conditions to Avoid:** High temperatures in air and contact with mineral acids.  
**Incompatibility (Materials to Avoid):** Contact with mineral acids can produce hydrogen sulfide.  
**Hazardous Polymerization:** Will not occur.

### HEALTH AND SAFETY DATA

**Routes of Entry:** The material can be swallowed  
**Health Hazards:** In general zinc sulfide is considered to be of low toxicity, there are no reports in the literature of adverse effects attributed to zinc sulfide. Cadmium compounds have a high oral toxicity, causing emetic and irritant effects on ingestion. Inhalation of cadmium dust can cause pulmonary edema and kidney injury.  
**Signs and Symptoms:** Ingestion may cause nausea, vomiting, diarrhea and abdominal pains. Inhalation of dust may result in lung injury. Skin contact may cause a rash, redness or dermatitis.  
**Medical Conditions Generally Aggravated by Exposure:** Persons suffering from lung dysfunction should avoid exposure to dust.  
**Emergency and First Aid Procedures:**

**Inhalation:** Not a likely hazard unless the screen is cut or ground. If symptoms of pulmonary involvement develop (coughing, labored breathing, etc.) remove from exposure immediately and obtain medical attention.

**Ingestion:** Give person large quantities of water to drink, induce vomiting and obtain medical attention.

**Skin Contact:** Wash affected area with mild soap and water. If irritation occurs seek medical attention.

**Eye Contact:** Flush with large amounts of water for 15 minutes. If irritation occurs seek medical aid.

**Carcinogenic Assessment:** Cadmium compounds have been reported by NTP and IARC to be carcinogens.

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## PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps to be Taken in Case Material is Released or Spilled:** If airborne dust is generated, use an appropriate NIOSH approved respirator. Clean up spills using methods that avoid dust generation such as vacuuming (with a vacuum that has an appropriate filter to prevent airborne dust levels that exceed the PEL or TLV). Wet dust mopping or wet clean up is preferred to reduce dusting.

**Waste Disposal Method:** Dispose of in accordance with appropriate government regulations.

**Precautions to be Taken in Handling and Storage:** Store away from mineral acids, strong oxidizers and flammable materials. Use an approved respirator if exposure to dust could occur. Gloves are recommended when skin contact is likely.

**Other Precautions:** Maintain good house keeping procedures to prevent accumulation of dust. Use clean-up methods that minimize dust generation such as vacuuming with an approved vacuum or wet clean up. If airborne dust is generated use an appropriate NIOSH approved respirator.

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## CONTROL MEASURES

**Respiratory Protection:** Cadmium is a carcinogen, use an approved NIOSH dust mask or equivalent if airborne dust concentrations exceed the PEL or TLV. All requirements set forth in 29 CFR 1910.134 should be followed.

**Ventilation:** Local exhaust to meet the TLV and PEL is recommended to minimize airborne dust exposure.

**Protective Gloves:** Gloves of a non-pervious type are recommended when skin contact is likely.

**Eye Protection:** Safety Glasses with side shields or goggles are recommended.

**Other Protective Equipment:** Protective clothing such as aprons, coveralls, etc. should be used and washed regularly. Do not shake to remove dust. Periodic medical examinations are recommended for individuals regularly exposed to dust.

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**END OF MATERIAL SAFETY DATA SHEET**