

# Platinum

## MATERIAL SAFETY DATA SHEET

### I. PRODUCT IDENTIFICATION

**Manufacturer/Supplier:**

ESPI Metals

1050 Benson Way, Ashland, OR 97520

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**Product Name:** Platinum

**Formula:** Pt

**CAS Number:** 7440-06-4

## II. HAZARDOUS INGREDIENTS

**Hazardous Component:** Platinum

**Percent (%):** 0-100

**OSHA/PEL:** 1 mg/m<sup>3</sup>

**ACGIH/TLVL:** 1 mg/m<sup>3</sup>

### **HMIS Rating (Powder):**

**Health:** 1

**Flammable:** 3

**Reactivity:** 1

### **HMIS Rating (Solid):**

**Health:** 0

**Flammability:** 0

**Reactivity:** 0

## III. PHYSICAL DATA

**Boiling Point:** 3827 °C

**Melting Point:** 1772 °C

**Specific Gravity:** 21.45 g/cm<sup>3</sup>

**Solubility in H<sub>2</sub>O:** Insoluble

**Appearance and Odor:** White metal, no odor

#### **IV. FIRE AND EXPLOSION HAZARDS DATA**

**Flash Point:** N/A

**Autoignition Temperature:** N/A

**Flammable Limits: Upper:** N/A      **Lower:** N/A

**Extinguishing Media:** Use foam, carbon dioxide, dry sand, dry ground dolomite, dry powder extinguishing agents.

**Special Firefighting Procedures:** If involved in a fire wear NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant protective clothing, hat, gloves and boots. If without risk move material out of fire area.

**Unusual Fire & Explosion Hazard:** Can be flammable in powdered form when exposed to excessive heat.

#### **V. HEALTH HAZARD INFORMATION**

**Effects of Exposure:**

To the best of our knowledge the chemical, physical and toxicological properties of platinum have not been thoroughly investigated and recorded.

Platinum is considered to have low toxicity. Exposure to dust of pure metallic form may cause skin sensitization and irritation to the eyes. Ingestion and inhalation may have irritating effects.

**Acute Effects:**

**Inhalation:** Inhalation of dust may cause irritation of the respiratory tract with coughing, wheezing and difficulty breathing.

**Ingestion:** No adverse effects expected.

**Skin:** May cause irritation and allergic reaction.

**Eye:** May cause irritation.

**Chronic Effects:** None known

**Medical Conditions Generally Aggravated by Exposure:** None known

**Carcinogenicity:** NTP: No      IARC: No      OSHA: No

**EMERGENCY AND FIRST AID PROCEDURES:**

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician.

**INGESTION:** Procedures normally not needed. If large quantities are ingested, seek medical advice.

**SKIN:** Immediately wash skin with soap and plenty of water. If irritation persists, call a physician.

**EYE:** Flush eyes with plenty of water. If irritation develops, call a physician.

**VI. REACTIVITY DATA**

**Stability:** Stable

**Conditions to Avoid:** None expected

**Incompatibility (Material to Avoid):** Aqua regia, molten alkali cyanides. Attacked by halogens, by fusion with caustic alkalies, alkali nitrates, alkali peroxides, by arsenates and phosphates in presence of reducing agents. Strong oxidizers, and organic materials.

**Hazardous Decomposition Products:** Chloroplatinic acid

**Hazardous Polymerization:** Will not occur

## **VII. SPILL OR LEAK PROCEDURES**

**Steps to be Taken in Case Material is Released or Spilled:** Wear appropriate respiratory protection and protective clothing specified in section VIII. Scoop up or vacuum using a high efficiency particulate absolute HEPA filter and place the spilled material into a container for reclamation or disposal. Take care not to raise dust.

**Waste Disposal Method:** Dispose of in accordance with State, Federal and Local regulations.

## **VIII. SPECIAL PROTECTION INFORMATION**

**Respiratory Protection:** A NIOSH/MSHA approved dust respirator is recommended if dust is generated.

**Ventilation:** Local exhaust ventilation as necessary to control any air contaminants to within their PEL's or TLV's during the use of this material.

**Protective Gloves:** Chemical resistant gloves should be worn.

**Eye Protection:** Safety glasses (with side shields)

**Other Protective Equipment:** Body protection as necessary to prevent skin contact.

## **IX. SPECIAL PRECAUTIONS**

**Precautions to Be Taken in Handling and Storage:** Store in a cool, dry location away from incompatible materials. Keep container tightly closed. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Avoid generating or breathing dust. Use only with adequate ventilation.

**Work Practices:** Implement engineering and work practice controls to reduce and maintain concentration of exposure. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air. Maintain eyewash capable of sustained flushing, safety drench shower and facilities for washing.

**TSCA Listed:** Yes

**DOT Regulations:**

**Solid Forms:**

**Hazard Class:** None

**Sponge and Powder:**

**Hazard Class:** 4.1

**Identification Number:** 3089

**Packing Group:** III

**Proper Shipping Name:** Metal powder, flammable, n.o.s. (platinum)

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a

guide. ESPI shall not be held liable for any damage resulting from handling or from contact with the above product.

Issued by: S. Dierks

Revised/Verified: October 2010