



Super Conductor Materials, Inc.

391 Spook Rock Industrial Park, Suffern, NY 10901 · 845.368.0240 · Fax 845.368.0250 · www.scm-inc.com

Chemtrec: (800) 424-9300
Poison Center: (800) 562-8236
Revision Date: January 8th, 2019

SAFETY DATA SHEET

Identity: Platinum

Formula: Pt

SECTION I - GENERAL INFORMATION

Manufacturer: Super Conductor Materials, Inc.

The information below is believed to be accurate and represents the best information available to Super Conductor Materials, Inc. However, SCM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Molecular weight: 195.08

CAS #	OSHA PEL	ACGIH TLV	%
7440-06-4	1.0mg/m ³	1.0mg/m ³	0.0-100.0%

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: 3825.0°C
Melting Point: 1768.4°C
Evaporation Rate: N/A

Specific Gravity (H₂O=1): 21.45g/cm³
Vapor Pressure (vs. air or mmHg): N/A
Solubility in water: Insoluble
Flash point: N/A

Appearance and odor: Silver-white powder and pieces, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Method Used: Non-flammable

Explosive Limits: LEL: N/A

UEL: N/A

Extinguishing Media: Use suitable extinguishing agent for surrounding material and type of fire

Special Fire Fighting Procedures:

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire and Explosion Hazards:

- May undergo hazardous reactions with aluminum; acetone; arsenic; carbon + methanol; nitrosyl chloride; dioxygen difluoride; ethanol; hydrazine; hydrogen + air; hydrogen peroxide; lithium; methyl hydroperoxide; ozonides; peroxymonosulphuric acid; phosphorus; selenium; tellurium; vanadium dichloride + water.
- Finely divided platinum may ignite if contacted with flammable organic solvents.
- Platinum can catalyze oxidation and ignition of flammable gases and vapors.



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SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): Extreme heat

Incompatibility: Aluminum; acetone; arsenic; carbon + methanol; nitrosyl chloride; dioxygen difluoride; ethanol; hydrazine; hydrogen + air; hydrogen peroxide; lithium; methyl hydroperoxide; ozonides; peroxy monosulphuric acid; phosphorus; selenium; tellurium; vanadium dichloride + water; organic solvents and reducing agents.

Hazardous Decomposition or Byproducts: None recorded

Hazardous Polymerization: Will not occur

Conditions to avoid (hazardous polymerization): None

SECTION VI - HEALTH HAZARD DATA

Route of entry: Inhalation? Yes Ingestion? Yes Skin? Yes Eyes? Yes Other? No

Exposure to complex platinum salts has been shown to cause symptoms of intoxication such as wheezing, coughing, running of the nose, chest tightness, shortness of breath and cyanosis. Furthermore, many people working with platinum salts are troubled with dermatitis. They may become sensitized after years of exposure. Symptoms of platinum allergy include rhinitis, conjunctivitis, asthma, urticarial and contact dermatitis. (Sax, Dangerous Properties of Industrial Materials, eighth edition)

Signs and Symptoms of Overexposure:

Inhalation: May cause a red throat, sneezing, coughing, tightness of chest, wheezing and difficulty breathing.

Ingestion: No acute or chronic health effects recorded.

Skin: May cause redness, itching, and inflammation.

Eye: May cause redness, itching, watering and inflammation.

Health Hazards (Acute and Chronic):

Inhalation:

Acute: May cause irritation to the respiratory system, platinum asthma, sensitization and cyanosis.

Chronic: May cause pulmonary fibrosis.

Ingestion:

Acute: No acute health effects recorded.

Chronic: No chronic health effects recorded.

Skin:

Acute: May cause irritation.

Chronic: May cause dermatitis and sensitization.

Eye:

Acute: May cause irritation.

Chronic: No chronic health effects recorded.

Target Organs: No target organs recorded

Carcinogenicity: NTP? No

IARC Monographs? No

OSHA Regulated? No

Medical Conditions Aggravated by Exposure: Pre-existing respiratory disorder



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Emergency and First Aid Procedures:

- Inhalation:* Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention
- Ingestion:* Give 1-2 glasses of milk or water and induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person. Contact Poison Control Center
- Skin:* Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, and seek medical attention if symptoms persist
- Eye:* Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Wear appropriate respiratory and protective equipment specified in section VIII. Isolate spill area, provide ventilation and extinguish sources of ignition. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

Waste disposal method:

Ship to precious metal refiner or dispose of in accordance with state, local, and federal regulations

Hazard Label Information:

Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

NIOSH approved respirator, impervious rubber gloves, safety glasses, clothes to prevent contact.

Ventilation:

- Local Exhaust: To maintain concentration at low exposure levels.
- Mechanical (General): Recommended.

Work/Hygienic/Maintenance Practices:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. 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.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established