

Material Safety Data Sheet

Identity: Palladium

Formula: Pd

SECTION I - GENERAL INFORMATION

Manufacturer: [Stanford Advanced Materials](#) (SAM)

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

SECTION II - PRODUCT INFORMATION/HAZARDOUS INGREDIENTS

Molecular weight: 106.42

CAS #	OSHA PEL	ACGIH TLV	%
7440-05-03	1.0mg/m ³	1.0mg/m ³	100

SECTION III - PHYSICAL/ CHEMICAL CHARACTERISTICS

Physical Status: Solid

Boiling Point: 3167°C

Melting Point: 1554.9 °C

Density: 12.02g/cm³

Solubility in water: Insoluble

Specific Gravity (Water =1): 12.02

Vapor Pressure (vs. air or mmHg): 26mmHg

Evaporation Rate: N/A

Percent Volatile: N/A

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point: N/A*Method Used:* N/A*Explosive Limits:* Non-flammable LEL: N/A UEL:

N/A

*Extinguishing Media:*DO NOT USE FIRE. Can use CO₂, foam, and dry chemicals*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 emit toxic fumes upon decomposition

SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): Extreme heat

Incompatibility: Organic solvents, acids, bases, ammonia, and Zinc (Zn)

Hazardous Decomposition or Byproducts: PdO

Hazardous Polymerization: Will not occur

Conditions to avoid (hazardous polymerization): None known

SECTION VI - HEALTH HAZARD DATA

Effects of exposure are unknown. It is best to work under conditions described below.

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: Contact poison control/medical attention immediately

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:

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 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.