



Cambridge Isotope Laboratories, Inc.  
50 Frontage Road  
Andover, MA 01810

Number:  
Issue Date

PDLM-6121  
06/27/11

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## MATERIAL SAFETY DATA SHEET

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### 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description PALLADIUM-104 METAL (104PD)

Cambridge Isotope Laboratories, Inc.  
50 Frontage Rd  
ANDOVER, MA 01810  
USA

E-mail [cilsales@isotope.com](mailto:cilsales@isotope.com)  
Web Site [www.isotope.com](http://www.isotope.com)

#### Phone Numbers

Emergency Contact Chemtrec  
Emergency Phone 1-800-424-9300 (24 hours)  
  
Customer Service 1-800-322-1174 (8:30-5:30 EST)  
Phone  
Transportation 1-202-483-7616 (24 hours)

### 2 HAZARDS IDENTIFICATION

#### OSHA Hazards

Flammable solid, Irritant

#### GHS Classification

Flammable solids (Category 1)  
Skin irritation (Category 2)  
Eye irritation (Category 2)  
Specific Target Organ Toxicity - Single exposure (Category 3)

#### GHS Label Information

Signal Word Danger

#### Hazards Identification

Flame  
Exclamation mark

#### Hazard Statement(s)

Flammable solid.  
Causes skin irritation.  
Causes serious eye irritation.



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May cause respiratory irritation.

### Precautionary Statement(s)

Keep away from heat/sparks/open flames/hot surfaces- No smoking.

Avoid breathing dust/fume/gas/mist/vapours/spray.

IF IN EYES: Rinse with water for several minutes. Remove contact lenses.

### HMIS Ratings

Physical	3
Flammability	0
Health	2

### NFPA Codes

Fire	0
Health	2
Reactivity	3

### Potential Health Effects

Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through the skin. Causes skin irritation.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Composition / Information on Ingredients

Synonyms	Precipitated palladium
Chemical Formula	Pd
Molecular Weight	103.90
CAS No.	15128-18-4
EC No.	231-115-6

## 4 FIRST AID MEASURES

### First Aid Measures

Eyes	Flush eye with water for 15 minutes. Get medical attention.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash with soap and plenty of water. Consult a physician.



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Additional Information Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### 5 FIRE FIGHTING MEASURE

#### Fire Fighting Measures

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Fire Fighting Equipment Wear self contained breathing apparatus for fire fighting if necessary.

Fire Fighting Procedures Use water spray to cool unopened containers.

### 6 ACCIDENTAL RELEASE MEASURES

#### Accidental Release Measures

Personal Precautions Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

### 7 HANDLING AND STORAGE

#### Precautions for Safe Handling

Handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

#### Conditions for Safe Storage

Storage Store at room temperature away from light and moisture.



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### 8 EXPOSURE CONTROL / PERSONAL PROTECTION

#### Personal Protection

Eyes - Face	Wear safety glasses with side shields (or goggles) and a face shield.
Skin	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory	When appropriate, use NIOSH/CEN approved respirator.
Protective Clothing	Wear suitable protective clothing and gloves.
Work Hygienic Practices	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Physical and Chemical Properties (Unlabeled Compound)

Form	Solid
pH	No data available
Melting Point	No data available
Boiling Point	No data available
Flashpoint	No data available
Flammability	The substance or mixture is a flammable solid with the subcategory 1.
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Solubility in Water	No data available
Auto Ignition Temperature	No data available

### 10 STABILITY AND REACTIVITY

#### Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Conditions to Avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Materials to avoid	Strong acids, Halogens, Bases, Arsenic, Methanol, Ethanol, Alcohols



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### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Serious No data available

Damage/Eye  
Irritation

Skin No data available  
Corrosion/Irritation

Inhalation No data available

Respiratory or Skin Not available  
Sensitization

Germ Cell Not available  
Mutagenicity

IARC No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC.

ACGIH No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH.

NTP No component of this product present at levels greater than or equal to 0.1% is identifiable as a known or anticipated carcinogen by NTP.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Not available  
Toxicity

#### Specific Target Organ Toxicity

Single Exposure Inhalation - May cause respiratory irritation.

Repeated Exposure No data available

#### Signs and Symptoms of Exposure

The chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Other Information

RTECS RT3480500

### 12 ECOLOGICAL INFORMATION

#### Toxicity



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Persistence and Degradability	Not available
Bioaccumulative Potential	Not available
Mobility in Soil	Not available
PBT and vPvB Assessment	Not available
Other Adverse Effects	Not available

### 13 DISPOSAL CONSIDERATIONS

#### Disposal Considerations

Product Disposal      Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.

### 14 TRANSPORT INFORMATION

#### Transportation Information-DOT/IATA/IMDG

UN Number	3089
Prop. Ship. Name	Metal powders, flammable, n.o.s., (Palladium-102 Metal 102Pd)
Hazard Class	4.1
Packing Group	II
Marine Pollutant	No
Poison Inhalation Hazard	No

### 15 REGULATORY INFORMATION

#### Regulatory Information

Flammable solid, Irritant

#### SARA

Sara 302 Component	No chemicals in this material are subject to the reporting requirements.
Sara 313 Component	No chemicals in this material are subject to the reporting requirements.



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### SARA 311/312 Hazards

Fire (Y/N) Y

Acute (Y/N) Y

### STATE REGULATIONS

Massachusetts No

Right to Know

Pennsylvania Right to Know Yes

New Jersey Right to Know Yes

California Proposition 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### Canada

DSL Status All components are on the Canadian DSL list.

### EU

Hazard Flammable. Irritant.

### Safety Statements

Keep away from sources of ignition - No smoking.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing.

Keep container tightly closed and in a well-ventilated place.

### Risk Statements

Irritating to eyes, respiratory system and skin.

## 16 OTHER INFORMATION

Additional MSDS Information This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Approved On 06/27/11

Version Number 1