


# MATERIAL SAFETY DATA SHEET

## Palladium Powder, 99.95%

<b>NFPA</b> 	<b>HMIS</b> <table border="1"><tr><td>HEALTH</td><td style="text-align: center;">1</td></tr><tr><td>FLAMMABILITY</td><td style="text-align: center;">1</td></tr><tr><td>REACTIVITY</td><td style="text-align: center;">0</td></tr><tr><td>PERSONAL PROTECTION</td><td style="text-align: center;">C</td></tr></table>	HEALTH	1	FLAMMABILITY	1	REACTIVITY	0	PERSONAL PROTECTION	C
HEALTH	1								
FLAMMABILITY	1								
REACTIVITY	0								
PERSONAL PROTECTION	C								

### 1. Product And Company Identification

<b>Supplier</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States  <b>Company Contact:</b> Wayne Sher <b>Telephone Number:</b> 410-398-7200 <b>FAX Number:</b> 410-398-2918 <b>E-Mail:</b> wsher@colonialmetals.com <b>Web Site:</b> colonialmetals.com	<b>Manufacturer</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States  <b>Company Contact:</b> Wayne Sher <b>Telephone Number:</b> 410-398-7200 <b>FAX Number:</b> 410-398-2918 <b>E-Mail:</b> wsher@colonialmetals.com <b>Web Site:</b> colonialmetals.com
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<b>Supplier Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887	<b>Manufacturer Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887
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**Issue Date:** 07/19/2010

**Product Name:** Palladium Powder, 99.95%  
**Chemical Name:** Palladium Metal, Palladium Powder, Palladium Flake  
**CAS Number:** 7440-05-3  
**Chemical Family:** Metal or Element  
**Chemical Formula:** Pd  
**MSDS Number:** 5000  
**Product Code:** 5000

#### **Synonyms**

Palladium Metal, Palladium Powder, Palladium Flake, Palladium Sponge

### 2. Composition/Information On Ingredients

Ingredient Name	CAS Number	Percent Of Total Weight
Palladium	7440-05-3	99 - 100

### EMERGENCY OVERVIEW

**Warning!** May cause allergic skin reaction. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Inhalation hazard as a fine dust or fume.

**Target Organs:** Liver, lungs.

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### 3. Hazards Identification

#### Primary Routes(s) Of Entry

Eye: Likely  
Skin: Likely  
Inhalation: Likely

#### Eye Hazards

The dust may cause slight to mild irritation of the eyes.

#### Skin Hazards

The dust may cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

#### Ingestion Hazards

Not expected to be a problem in industry. May cause digestive tract irritation.

#### Inhalation Hazards

Hazard associated with inhalation of fine dust or fume. May cause respiratory tract irritation.

#### Subchronic (Target Organ Effects)

#### Chronic/Carcinogenicity Effects

May lead to liver and lung damage.

#### Conditions Aggravated By Exposure

May cause irritation of the respiratory system. Maintain housekeeping and personal hygiene to minimize exposure and prevent sensitization.

#### Conditions Aggravated By Overexposure

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

#### First Aid (Pictograms)



### 4. First Aid Measures

#### Eye

Flush for 15 minutes with plenty of water. Contact a physician immediately.

#### Skin

Flush area for 15 minutes with water and wash with soap and water and rinse thoroughly. If discomfort occurs or persists, contact a physician immediately. Remove contaminated clothing and shoes and wash before reuse.

#### Ingestion

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Contact a physician immediately.

#### Inhalation

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Cough or other symptoms may appear. Contact a physician immediately.

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### 4. First Aid Measures - Continued

#### Note To Physician

Ethanol may inhibit methanol metabolism.

### Fire Fighting (Pictograms)



### 5. Fire Fighting Measures

Flash Point Method: NA

Flammability Class: NA

#### Fire And Explosion Hazards

When metal powder or flake from a solvent suspension is allowed to dry, the residual organic may self-ignite.

#### Extinguishing Media

Use water spray, foam, dry chemical, carbon dioxide (CO<sub>2</sub>), chemical foam, or medium for primary source.

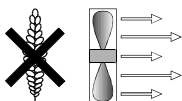
#### Fire Fighting Instructions

If metal suspension residue self-ignites, use CO<sub>2</sub> or dry powder extinguisher. Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

### 6. Accidental Release Measures

Very fine particles can cause a fire or explosion. Sweep or soak up and place in sealed container; Taking care to avoid dusting. Person protected with full face shield and NIOSH approved respirator and cartridge for dust. Ventilate area and wash spill site after pick-up is complete.

### Handling & Storage (Pictograms)



### 7. Handling And Storage

#### Handling Precautions

Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

#### Storage Precautions

Store in a tightly closed container in a cool, dry, well-ventilated place away from incompatible substances.

#### Work/Hygienic Practices

Use good personal hygiene. Wash thoroughly after handling. Wash thoroughly with soap and water after handling.

#### Other Precautions

0.01 ppm high efficiency particular respirator/supplied air respirator/self-contained breathing apparatus; 0.2 ppm same as above with full face piece; 1 ppm powdered air purifying respirator with high efficiency filter/type C supplied air respirator operated in pressure demand mode. Store in a sealed container, plastic or plastic liner, in a cool, well ventilated, dry area away from volatile acids.

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### Protective Clothing (Pictograms)



### 8. Exposure Controls/Personal Protection

#### Engineering Controls

Ventilation: Local Exhaust: Required in handling area  
Mechanical: Desirable to insure concentration of material below TLV/TWA levels  
Other: Closed Ventilation system - dust (Laboratory Fume Hood)

Safety shower and eyewash

#### Eye/Face Protection

ANSI approved safety glasses/goggles, full face shield

#### Skin Protection

Rubber/Neoprene (use compatible chemical-resistant gloves)

#### Respiratory Protection

NIOSH approved chemical cartridge respirator for particulates and dust, if there is a potential for airborne exposure to exceed established threshold value, or self-contained breathing apparatus with full face shield.

#### Other/General Protection

Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and hygiene facilities for washing

### 9. Physical And Chemical Properties

#### Appearance

Gray to black powder

#### Odor

Slight process odor

**Chemical Type:** Pure

**Physical State:** Solid

**Melting Point:** 1555 °C

**Boiling Point:** 3167 °C

**Specific Gravity:** 12.02

**Molecular Weight:** 106.4

**Vapor Pressure:** NA

**Vapor Density:** 12.02 g/cm<sup>3</sup>

**pH Factor:** NA

**Solubility:** Insoluble

**Evaporation Rate:** NA

### 10. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur

#### Conditions To Avoid (Stability)

Incompatible materials, dust generation.

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### 10. Stability And Reactivity - Continued

#### Incompatible Materials

Aluminum, arsenic, ozonides, sodium tetrahydroborates, carbon, formic acid, sulfur, hydrogen + hydrogen peroxide.

#### Hazardous Decomposition Products

Irritating and toxic fumes and gases, hydrogen gas.

### 11. Toxicological Information

#### Miscellaneous Toxicological Information

RTECS#:

CAS# 7440-05-3: RT3480500; RT3593400

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 7440-05-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

### 12. Ecological Information

No Data Available...

### 13. Disposal Considerations

Consult Federal EPA, State and local regulations for proper disposal/recycle/reclamation

NOTE: Chemical additions, processing, or otherwise altering this material may make the waste management information presented above incomplete, inaccurate, or otherwise inappropriate.

#### RCRA Information

NL

### 14. Transport Information

#### Proper Shipping Name

Non-Hazardous

#### Additional Shipping Paper Description

IATA: Same as DOT Regulation 49 CFR. Consult IATA regulation for further information.

### 15. Regulatory Information

#### U.S. Regulatory Information

This product is TSCA listed.

#### Canadian Regulatory Information

WGK (Water Danger/Protection)

CAS# 7440-05-3: 0

Canada - DSL/NDSL

CAS# 7440-05-3 is listed on Canada's DSL List.

Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

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### 15. Regulatory Information - Continued

#### European Union (EU) Regulatory Information

Hazard Symbols:

Not available.

Risk Phrases:

R 43 May cause sensitization by skin contact.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

#### Other International Regulations

### 16. Other Information

#### NFPA Rating

Health: 1

Fire: 1

Reactivity: 0

#### HMIS Rating

Health: 1

Fire: 1

Reactivity: 0

Personal Protection: C

#### Revision/Preparer Information

MSDS Preparer: Wayne S. Sher

MSDS Preparer Phone Number: 410-398-7200

#### Disclaimer

In compliance with the OSHA Hazard Communication Standard, 29 C.F.R 1910.1200, we are providing you with a Materials Safety Data Sheet (MSDS) for the hazardous material you are purchasing.

It is your responsibility to educate your employees on the safe use of the hazardous material. With this in mind, a copy should be forwarded to the supervisor of the user or to the user themselves, and copy should be retained in your files for future reference.

Colonial Metals, Inc. makes no presentation as to the accuracy of the information in the MSDS. The information is believed to be correct; however, you (the customer), should perform your own investigation and independent verification. If you resell the product, you are responsible to forward the information in the MSDS to your customer.

Colonial Metals, Inc.