

## Safety Data Sheet

### 29 CFR 1910.1200

#### Section 1: Company and Product Identification

---

**Product Name:** Palladium (II) Chloride

**Product Code:** 5001

**Company:** Colonial Metals, Inc.  
 Building 20  
 505 Blue Ball Road  
 Elkton, MD 21921 United States  
 Company Contact: EHS Director  
 Telephone Number: 410-398-7200  
 FAX Number: 410-398-2918  
 E-Mail : info@colonialmetals.com  
 Web Site: www.colonialmetals.com



www.colonialmetals.com

**Emergency Response:** Supplier Emergency Contacts & Phone Number  
 Chemtrec: 800-424-9300  
 World Wide - Call COLLECT to U.S: 703-527-3887

#### Section 2: Hazards Identification

---

**Hazard Pictograms:**



**Signal Word:** Danger

**Hazard Category:** Skin corrosion/irritation Cat 3  
 Sensitization, skin Cat 1  
 Specific target organ tox, single exp. Cat 3 (resp irrit)  
 Acute tox, oral Cat 3

**Hazard Statements:** H316: Causes mild skin irritation  
 H317: May cause an allergic skin reaction  
 H335: May cause respiratory irritation  
 H301: Toxic if swallowed

**Precautionary Statements:** P202: Do not handle until all safety precautions have been read and understood  
 P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking  
 P264: Wash thoroughly after handling  
 P280: Wear protective gloves/protective clothing/eye protection/face protection  
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
 P402+404: Store in a dry place. Store in a closed container  
 P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

**Hazards not otherwise classified:**

Conditions Aggravated By Exposure:

May cause irritation of the respiratory system. Exposure to nitric acid causes tissue corrosion from topical contact and acute pulmonary edema or chronic obstructive pulmonary disease from inhalation.

**Section 3: Composition / Information on Ingredients**

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Palladium Chloride	Irritant, Corrosive	7647-10-1	99-100
<b>Chemical Family: Platinum Group Metal Salts</b> <b>Synonyms:</b> Palladium (II) Chloride, Palladous Chloride <b>Chemical Formula:</b> PdCl <sub>2</sub>			

**Section 4: First Aid Measures**

**General Info:** Ensure proper ventilation.

**Notable Exposure symptoms:** Irritation to skin, eyes and areas of contact.

**If ingested:** Rinse mouth. Seek immediate medical attention. Clear the airway and administer artificial respiration if not breathing.

If swallowed, do not induce vomiting unless directed to do so by medical personnel.

**If inhaled:** Remove the victim from the contaminated area while protecting yourself from exposure by wearing an appropriate respirator. Put a similar respirator on the victim if possible. Get medical attention immediately.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical attention if irritation develops or persists.

**Skin contact:** Take off immediately all contaminated clothing. Rinse with water thoroughly. Get medical advice if irritation develops or persists.

**Additional Info:** Observe for any symptoms for several hours after exposure. Follow up with medical attention if symptoms develop. Note To Physician, Treat symptomatic symptoms

**Section 5: Fire Fighting Measures**

**General Info:** Use proper safety equipment. This substance is an oxidizer and it's heat of reaction with reducing agents or combustibles may cause ignition. Can decompose to emit fumes under fire conditions

**Extinguishing Method / Equipment:** Use water spray, foam, dry chemical, carbon dioxide or medium for primary source.

**Method / Equipment:**

**Hazardous Decomposition Info:** Use proper safety equipment. Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Can decompose to emit toxic chlorine gas.

**Decomposition Info:** full protective clothing. Can decompose to emit toxic chlorine gas.

**Section 6: Accidental Release Measures**

**Personal precautions, protective equipment and procedures:** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing dust. Ventilate area if easy to do so. Contact local authorities if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Containment Equipment and Procedures:** Large Spills: Contain actively spilling material if safe and easy to do so, avoid generating dust. Have emergency response team respond. Soak up and place in sealed container for reclamation or disposal. Use proper exposure controls and personal protection equipment (See Personal Protection).

Small Spills: Soak up and place in sealed container for reclamation or disposal. Use proper exposure controls and personal protection equipment (See Personal Protection).

**Cleanup Procedures:** Collect all contaminated media, or other cleanup materials into a waste receptacle. If cleaning surface is necessary, utilize vacuum cleaner, provided adequate ventilation is available.

## Section 7: Handling and Storage

---

**Safe Handling** Do not handle until all safety precautions have been read and understood. Keep containers tightly

**Precautions:** closed Ensure adequate ventilation. Avoid breathing dust/vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling.

**Recommendations for Storage:** Store in cool, dry area in a tightly closed product container.

**Incompatibilities:** Store away from strong acids or oxidizing agents. Refer to Section 10.

**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.

## Section 8: Exposure Control / Personal Protection

---

**General / Ventilation:** Local Exhaust: Required in handling area  
**Engineering Controls:** Mechanical: Desirable to insure concentration of material below TLV/TWA levels  
**Other:** Closed Ventilation system with corrosive-resistant materials  
 Safety shower and eyewash

**Work Clothing:** Protective work clothing which covers skin and prevents exposures.

**Eye/face protection:** Wear safety glasses with side shields or goggles or face shield.

**Skin Protection:** Wear chemical resistant gloves.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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

## Section 9: Physical and Chemical Properties

---

<b>State:</b> Crystal/Powder	<b>Melting Point:</b> 1252-1256 °F 678-680 °C	<b>Freezing Point:</b> N/A
<b>Color:</b> Dark red/brown	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.</b> 177.31	<b>Odor:</b> Slight odor of hydrogen chloride	<b>Water Solubility:</b> Soluble
<b>Evaporation rate:</b> N/A	<b>Flash Point:</b> N/A	<b>Part. Coeff (n-octanol/water):</b> N/A
<b>Upper Flam Limits:</b> N/A	<b>Lower Flam Limits:</b> N/A	<b>Packing Density:</b> 4 g/cm <sup>3</sup> @ 25C (77F)
<b>VOC Content (lbs/gal):</b> N/A	<b>Specific Gravity:</b> 4.0	<b>Autoignition Temp:</b> N/A

**Section 10: Stability and Reactivity**

---

**General:** This product is stable and non-reactive under normal conditions of use. Product is not subject to hazardous polymerization. Avoid open flame and ignition sources.

**Conditions To Avoid (Stability):** Elevated temperatures

**Incompatible materials:** Oxidizing agents.

**Decomposition products:** Hydrogen chloride gas.

**Section 11: Toxicological Information**

---

**General Information:** To the best of our knowledge the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated.

**Toxicological Acute Studies**

**Information** LD50: oral- rat- 2704 mg/kg

**(product):** LD50: oral- mouse- >1000 mg/kg

LD50: oral- rat- 200 mg/kg

**Skin Effects**

Rabbit: mild skin irritation- 24h- Draize Test

May cause allergic skin reaction.

Subchronic (Target Organ Effects)

Behavioral (convulsions or effect on seizure threshold) lungs, thorax or respiration (tumors)blood (leukemia)paternal effects (spermatogenesis)paternal effects (testes, epididymis, sperm duct)tumorigenic carcinogenic by rtecs criteria)only selected registry of toxic effects of chemical substances(rtecs) data is presented here. See actual entry in rtecs for complete information.

**Chronic/Carcinogenicity**

Carcinogenicity: Mouse- oral

Tumorigenic: Carcinogenic by RTECS criteria. Lungs, thorax, or respiration: Tumors, Blood:Tumors

**Reproductive Effects**

Rat: Intratesticular

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Paternal Effects: Testes, epididymis, sperm duct.

Mouse: Subcutaneous

Paternal Effects: Testes, epididymis, sperm duct.

**Mutagenicity (Genetic Effects)**

Genotoxicity in vitro - Human - lymphocyte

DNA inhibition

**Conditions Aggravated By Exposure**

Contact with skin can cause: Dermatitis, Allergic reactions

Genotoxicity in vitro: human- lymphocyte

DNA inhibition

**Likely Routes of** Eye Contact

**Exposure:** Skin Contact

Inhalation

Ingestion - possible, but considered unlikely.

**Other Notes:** None

**Section 12: Ecological Information**

---

**General information:** Product not tested.

**Aquatic toxicity:** No specific data available. Do not allow large quantities of product to reach water, ground water, water courses or sewer systems.

**Degradation / Mobility info:** No specific data available.

**Bioaccumulative potential:** No specific data available.

**Section 13: Disposal Information**

---

**Product disposal:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.  
Consult Federal EPA, State and local regulations for proper disposal/recycle/reclamation

**Container disposal:** Treat empty containers with extra care. Consult waste contractor.

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

**Section 14: Transport Information**

---

**DOT: Proper Shipping Name:**

Not Dangerous Goods

**IMO/IMDG:** Not Dangerous Goods

**IATA:** Not Dangerous Goods. Refer to IATA regulations for further shipping regulations.

**OTHER:** Inquire for further transport information.

**Comments:** None

**Section 15: Regulatory Information**

---

**TSCA:** All ingredients of this product are listed under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**SARA Hazard Classes:** SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

**SARA 313:** This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and

**Canadian DSL:** This information and product has been classified in accordance with the hazard criteria of CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

**European Union (EU) Regulatory Information:** Symbol of Danger: I  
Indication of Danger: Irritant

R: 34

Risk Statements: Causes burns.

R: 37/38-41-43

Risk Statements: Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitization by skin contact.

S: 26- 36/37/39-45

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

Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Section 16: Other Information**

---

**NFPA Rating**

Health: 3

Fire: 0

Reactivity: 0

**HMIS Rating**

Health: 3

Fire: 0

Reactivity: 0

Personal

Protection: J

**Disclaimer:** In compliance with the OSHA Hazard communication Standard, 2.9 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 believe to be correct; however, you (the customer), should preform 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.*

**SDS Author:** John Kerchner

**Version Date:** 6/15/2015