

**Safety Data Sheet**  
29 CFR 1910.1200

**Section 1: Company and Product Identification**

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**Product Name:** Palladium (II) Nitrate Hydrate

**Product Code:** 5004

**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**

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**Hazard Pictograms:**



**Signal Word:** Danger

**Hazard Category:** Skin corrosion/irritation Cat 2  
Serious eye damage/eye irritation Cat 3  
Specific target organ tox, single exp. Cat 3 (resp irrit)  
Acute tox, oral Cat 5

**Hazard Statements:** H315: Causes skin irritation  
H320: Causes eye irritation  
H335: May cause respiratory irritation  
H303: May be harmful 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  
P501: Dispose of contents/container in accordance with local/national/international rules.

**Hazards not otherwise classified:** Oxidizing. Irritant. Contact with combustible material may cause fire. Irritating to eyes, respiratory system and skin.  
Target organ(s): Blood. Central nervous system.

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

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Palladium (II) Nitrate	Corrosive / Irritant	10102-05-3	
<b>Chemical Name:</b> Palladium (II) Nitrate/Palladous Nitrate <b>Chemical Family:</b> Platinum Group Metal Salts <b>Chemical Formula:</b> Pd(NO <sub>3</sub> ) <sub>2</sub> .2H <sub>2</sub> O <b>Synonyms:</b> Palladium Dinitrate, Palladium Nitrate			

**Section 4: First Aid Measures**

**General Info:** Ensure proper ventilation.

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

**symptoms:**

**If ingested:** Not expected to be a problem in industry. However if swallowed and discomfort occurs, contact a physician

**If inhaled:** Remove to fresh air immediately. If discomfort occurs or persists, contact a physician.

**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 toxic nitrous oxide (NO<sub>x</sub>)

**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 fumes.

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

**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 Procedures:** Large Spills: Contain actively spilling material if safe and easy to do so, avoid generating dust.

**Equipment and Procedures:** 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).

**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 Precautions:** Do not handle until all safety precautions have been read and understood. Keep containers tightly 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:** Do not store directly on ground. Keep away from heat, sparks, flame, and other sources of ignition.... Store in a dry place.

**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

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**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

**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).

## Section 9: Physical and Chemical Properties

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<b>State:</b> Liquid	<b>Melting Point:</b> N/A	<b>Freezing Point:</b> N/A
<b>Color:</b> Dark Black/brown crystals	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.</b> 266.46	<b>Odor:</b> Acidic	<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>Vapor Pressure:</b> N/A
<b>VOC Content (lbs/gal):</b> N/A	<b>Viscosity:</b> N/A	<b>Autoignition Temp:</b> N/A

## Section 10: Stability and Reactivity

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**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 temperature, air, light, and moisture sensitive

**Incompatible materials:** Alcohols, alkali metals, amines, bases, aluminum, brass copper, copper alloys corrodes steel, galvanized iron, organic materials, reducing agents.

**Decomposition products:** Nitrous oxides, palladium oxides.

## Section 11: Toxicological Information

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

**Toxicological Information (product):** Subchronic (Target Organ Effects) Blood. Central Nervous System.

**Likely Routes of Exposure:** Eye Contact  
 Skin Contact  
 Inhalation  
 Ingestion - possible, but considered unlikely.

**Section 12: Ecological Information**

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**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**

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**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**

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**DOT:** Proper Shipping Name  
NITRATES, INORGANIC, N.O.S. (PALLADIUM (II) NITRATE HYDRATE)  
Hazard Class  
5.1  
Secondary Hazard Class  
NA  
DOT Identification Number  
1477  
DOT Shipping Label  
Nitrates, inorganic, n.o.s.  
Freight Class  
See 49 CFR  
Packaging Exceptions  
See 49 CFR  
Packaging Requirements  
PGII

**IMO/IMDG:** See regulation for information

**IATA:** Same as 49 CFR (DOT) regulation. Refer to IATA regulations for further shipping regulations.

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

**Section 15: Regulatory Information**

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

**SARA Hazard Classes:** SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

**SARA 313:** THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS - NITRATE COMPOUNDS (WATER DISSOCIABLE).

**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) Sign of Danger:** O, Xi

**Regulatory**

**Information:** Indication of Danger: Oxidizing, and Irritant

R: 8, 36/37/38

Risk Phrase: Contact with combustible material may cause fire. Irritating to eyes, respiratory system, and skin.

S: 36,17, 26

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

Keep away from combustible material, Wear suitable protective clothing.

**Section 16: Other Information**

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**NFPA Rating**

Health: 3

Fire: 0

Reactivity: 2

Other: OX

**HMIS Rating**

Health: 3

Fire: 0

Reactivity: 2

Personal

Protection: J

**US CLASSIFICATION AND LABEL TEXT**

Indication of Danger: Oxidizing, Irritant.

Risk Statements: Contact with combustible material may cause fire.

Irritating to eyes, respiratory system and skin. Safety Statements: Keep

away from combustible material. 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.

US Statements: Target organ(s): Blood. Central nervous system.

**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.

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