

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Palladium (II) Sulfate Solution

Product Code: 5060-S

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

Response: Chemtrec: 800-424-9300
 World Wide - Call COLLECT to U.S: 703-527-3887

Section 2: Hazards Identification

Hazard Pictograms:



Signal Word:

Warning

Hazard Category:

Skin corrosion/irritation Cat 1
 Sensitization, skin Cat 1
 Specific target organ tox, single exp. Cat 3 (resp irrit)
 Acute tox, oral Cat 4

Hazard Statements:

H314: Causes severe skin burns and eye damage
 H317: May cause an allergic skin reaction
 H335: May cause respiratory irritation
 H302: 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
 P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Hazards not otherwise classified:

Conditions Aggravated By Overexposure:

May be harmful if inhaled. Material is extremely destructive to the tissue of the upper respiratory tract and mucous membranes.
 Irritation to severe pain followed by vomiting and diarrhea, perforation of the esophagus and stomach may occur.
 Causes severe skin burns. Corrosive to living tissue. May be harmful if absorbed through the skin.

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Palladium	Irritant, Corrosive	7440-05-3	3 - 4
Sulfuric Acid		7664-93-9	30 - 40
Product Name: Palladium (II) Sulfate Solution		13566-03-5	
Chemical Family: Platinum Group Metal Synonyms: Palladium (II) Sulfate, Palladous Sulfate Chemical Formula: PdSO ₄ Chemical Name: Palladium (II) Sulfate/Palladous Sulfate			

Section 4: First Aid Measures

General Info: Corrosive. Causes burns.

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

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

symptoms:

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

If swallowed, Contact a physician immediately, 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 immediately.

Skin contact: Take off immediately all contaminated clothing. Rinse with water thoroughly. Get medical advice immediately.

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: Flash Point: N/A

Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

Extinguishing Method / Equipment: Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

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/vapor. 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: Dike major spills. Neutralize with slaked lime or sodium bicarbonate solution. 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: Neutralize with slaked lime or sodium bicarbonate solution. 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 Store in cool, dry area in a tightly closed product container.
for Storage:

Incompatibilities: Hygroscopic

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 Mechanical: Desirable to insure concentration of material below TLV/TWA levels

Controls: 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 Where risk assessment shows air-purifying respirators are appropriate use a full-face particle

Protection: 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 Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and

Information: hygiene facilities for washing

Section 9: Physical and Chemical Properties

State: Liquid Solution	Melting Point: N/A	Freezing Point: N/A
Color: Dark brown	Boiling Point/Range: N/A	pH 1-9
Molecular Wt. N/A	Odor: Odorless	Water Solubility: Very Soluble
Evaporation rate: N/A	Flash Point: N/A	Part. Coeff (n-octanol/water) N/A
Upper Flam Limits: N/A	Lower Flam Limits: N/A	Vapor Density: N/A
Vapor Pressure: N/A	Specific Gravity: 1.4-1.7	Autoignition Temp: N/A

Section 10: Stability and Reactivity

General: Corrosive. To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated. Avoid elevated temperatures. Product incompatible oxidizing agents.

Incompatible materials: Oxidizing Agents

Decomposition products: Palladium oxides and sulfur oxides.

Section 11: Toxicological Information

General Information: Conditions Aggravated By Exposure:

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Toxicological Information Ingredient(s) - Toxicological Data

Sulfuric Acid

(product): ACGIH - TWA - 1 mg/m³ or STEL - 3 mg/m³NIOSH and OSHA - TWA 1 mg/m³ and IDLH: 15 mg/m³

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

Likely Routes of Exposure: Eye Contact

Skin Contact

Inhalation

Ingestion - possible, but considered unlikely.

Other Notes: None**Section 12: Ecological Information**

General information: No Data Available**Aquatic toxicity:** No Data Available**Degradation / Mobility info:** No 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:

Corrosive Liquid, n.o.s. (Contains Sulfuric Acid))

Hazard Class:

8

Secondary Hazard Class:

NA

DOT Identification Number:

1760

DOT Shipping Label:

Corrosive

Freight Class:

NL

Packaging Exceptions:

See DOT 49 CFR

Packaging Requirements:

See DOT 49 CFR

Additional Shipping Paper Description:**IMO/IMDG:** Inquire for further transport information.**IATA:** Corrosive Liquid, n.o.s. (Contains Sulfuric Acid)), 8, UN 1760. PG III. Consult IATA regulation**OTHER:** Inquire for further transport information.**Comments:** None

Section 15: Regulatory Information

TSCA: This product is not TSCA listed. For R & D purpose only.

SARA Hazard This product does not require reporting under SARA.

Classes:

SARA 313 This product does not require reporting under SARA Title 313.

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: Yes

**European Union
(EU) Regulatory
Information:**

Symbol of Danger: C

Indication of Danger: Corrosive.

R: 34

Risk Statements: Causes burns.

S: 22-26-36/37/39-45

Safety Statements: Do not breathe dust. 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: 1

HMIS Rating

Health: 3

Fire: 0

Reactivity: 1

Personal

Protection: J

Precautionary Label: Corrosive

***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.

SDS Author: John Kerchner

Version Date: 6/15/2015