

**Safety Data Sheet**  
29 CFR 1910.1200

**Section 1: Company and Product Identification**


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**Product Name:** Silver (I) Permanganate

**Product Code:** 9060

**CAS #:** 7783-98-4

**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** Supplier Emergency Contacts & Phone Number

**Response:** 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:**

Warning

**Hazard Category:**

Acute tox, dermal Cat 5  
Skin corrosion/irritation Cat 3  
Serious eye damage/eye irritation Cat 3  
Acute tox, inh. Cat 4

**Hazard Statements:**

H313: May be harmful in contact with skin  
H316: Causes mild skin irritation  
H320: Causes eye irritation  
H332: Harmful if inhaled

**Precautionary Statements:**

P260: Do not breathe dust/fume/gas/mist/vapors/spray  
P264: Wash thoroughly after handling  
P270: Do not eat, drink or smoke when using this product  
P271: Use only outdoors or in a well-ventilated area  
P272: Contaminated work clothing should not be allowed out of the workplace  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P284: Wear respiratory protection

**Hazards not otherwise classified:**

**Chronic/Carcinogenicity Effects:**

Long term exposure to silver and silver salts can lead to the condition known as argyria-a general gray pigmentation of the skin and mucous membranes.

**Conditions Aggravated By Exposure:**

May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver). May be irritating to skin, eyes and respiratory tract.

**Conditions Aggravated By Overexposure:**

Symptoms include skin rash, running nose, headache, and irritation of mucous membranes. Silver may discolor the skin. To the best of our knowledge, the chemical, the physical, and toxicological properties of this compound have not been thoroughly investigated.

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

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Silver Permanganate	Irritant	7783-98-4	
<b>Chemical Name:</b> Silver Permanganate <b>Chemical Formula:</b> AgMnO <sub>4</sub> <b>Chemical Family:</b> Metal Manganese Compound			
This product contains no hazardous ingredients when evaluated by criteria established in the OSHA Hazard Communication Standard (29 CFR 1910.1200).			

**Section 4: First Aid Measures**

**General Info:** Consult a Physician. Show this safety data sheet to the doctor in attendance.

**Notable Exposure symptoms:** Irritation to skin, eyes and areas of contact. If discomfort occurs or persists, contact a physician.

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

**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.

**Skin contact:** Flush area for 15 minutes with water and wash with soap and water. Remove contaminated clothing and shoes and wash before reuse.

**Section 5: Fire Fighting Measures**

**General Info:** Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Do not direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.

**Extinguishing Method / Equipment:** Use carbon dioxide, dry chemical powder, or appropriate foam.

**Hazardous Decomposition Info:** Can decompose to emit toxic fumes under fire conditions. May accelerate combustion. Contact with other material may cause fire.

**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 respiratory 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. Do not let product enter drains. Sweep up and placed in a proper vessel for recovery or disposal. Avoid raising dust.  
Procedures: Ventilate and wash spill site after cleanup is complete. Spills can be mixed with Sodium Carbonate or ground limestone and swept up..

Small Spills: Sweep or soak up and place in sealed container. Taking care to avoid dusting. Spills can be mixed with Sodium Carbonate or ground limestone and swept up.

**Cleanup Procedures:** 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.

**Section 7: Handling and Storage**

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**Safe Handling** Do not handle until all safety precautions have been read and understood. Keep containers tightly closed. Ensure adequate ventilation. Avoid creating and breathing dust/vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling. Keep away from ignition sources.

**Recommendations for Storage:** Store in cool, dry area in a tightly closed product container away from sources of ignition or flame or combustible material. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Incompatibilities:** Oxidizers, fulminates, ammonia and active metal

**Section 8: Exposure Control / Personal Protection**

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**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 - Dust (Laboratory Fume Hood)

**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:** NIOSH approved chemical cartridge respirator for particulates and dust or self-contained breathing apparatus with full face shield.

**Additional Information:** Observe good chemical hygiene practices. Do not smoke or eat while using this product. Wash hands or exposed skin after using the product.

**Section 9: Physical and Chemical Properties**

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<b>State:</b> Powder	<b>Melting Point:</b> N/A	<b>Freezing Point:</b> N/A
<b>Color:</b> Grey	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.:</b> 226.81	<b>Odor:</b> None	<b>Water Solubility:</b> N/A
<b>Specific Gravity:</b> 6.37	<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 Density:</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.

**Stability:** Stable

**Conditions to Avoid:** Exposure to heat, light, and moisture

**Incompatible materials:** Organic materials, Finely divided metals, Aluminum, Steel

**Decomposition products:** Nature of decomposition is unknown

**Section 11: Toxicological Information**

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**General Information:** May cause argyria, a slate gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate or silver. Causes eye irritation  
To the best of our knowledge the chemical, physical, and toxicological effects of this compound have not been thoroughly investigated.

**Toxicological Information (product):** No Data Available

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

**Toxicological Information (contained substances)**

**Carcinogenicity or mutagenicity:** To the best of our knowledge the chemical, physical, and toxicological effects of this compound have not been thoroughly investigated.

**Sensitization:** Product is not expected to be a sensitizer.

**Other Notes:** None

**Section 12: Ecological Information**

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**General information:** No data available

**Aquatic toxicity:** No specific data available.

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

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

**Section 13: Disposal Information**

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**Product disposal:** Place in a sealed container. 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.

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

**Other considerations:** No further information.

**Section 14: Transport Information**

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**DOT: Proper Shipping Name:**  
Permanganates, inorganic, n.o.s.  
**UN#:** 1482  
**Class:** 5.1  
**Packing Group:** II  
**Hazard Label:** Oxidizer  
**PIH:** Not PIH

**IMO/IMDG:** No data available

**IATA:** Same as DOT 49 CFR regulations. Consult IATA before shipping

**Comments:** None

**Section 15: Regulatory Information**

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**TSCA:** This product is TSCA listed.

**SARA: Section 313 Notification**

This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

**Canadian DSL:** All ingredients of this product comply with the New Substances Notification requirements of the Canadian Environmental Protection Act (CEPA).

**European Union (EU) R8-20/21/22-36** – Contact with combustible material may cause fire. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin S16-26-36/37/39.  
**Regulatory Information:** Avoid contact with skin and eyes S36/37.  
Wear suitable protective clothing and gloves.

**Other International Regulations:** None

**Section 16: Other Information**

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**NFPA Rating**

Health: 0  
Fire: 0  
Reactivity: 3

**HMIS Rating**

Health: 1  
Fire: 0  
Reactivity: 3  
Special  
Hazard(s):  
Oxidizer

**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:** Dr. Ernest Addo

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