

## Safety Data Sheet 29 CFR 1910.1200

### Section 1: Company and Product Identification

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**Product Name:** Silver Chlorate

**Product Code:** 9023

**CAS #:** 7783-92-8

**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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GHS07

GHS03

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**Hazard Pictograms:**



**Signal Word:** Danger

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

**Hazard Statements:** H272: May intensify fire; oxidizer  
H315: Causes skin irritation  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation

**Precautionary Statements:** P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking  
P220: Keep/Store away from clothing/.../combustible materials  
P221: Take any precaution to avoid mixing with combustibles  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray  
P264: Wash thoroughly after handling  
P271: Use only outdoors or in a well-ventilated area  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P302+352: IF ON SKIN: Wash with soap and water  
P304+341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove  
P332+313: If skin irritation occurs: Get medical advice/attention  
P337+313: If eye irritation persists get medical advice/attention  
P336: Thaw frosted parts with lukewarm water. Do not rub affected areas  
P362: Take off contaminated clothing and wash before reuse  
P370+378: In case of fire: Use ... for extinction  
P403+233: Store in a well ventilated place. Keep container tightly closed  
P405: Store locked up  
P501: Dispose of contents/container in accordance with

**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:**

Prolonged or repeated inhalation, application or ingestion of silver compounds may cause a permanent bluish discoloration of the skin and mucous membranes.

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

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Silver Chlorate	Irritant/Oxidizing Solid	7783-92-8	100
<b>Chemical Name:</b> Silver Chlorate <b>Chemical Family:</b> Metal Chlorate Salt <b>Chemical Formula:</b> AgClO <sub>3</sub>	Environmental Hazard		
<b>Synonyms:</b> Silver Chlorate			
Avoid contact and inhalation.			

**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.

**symptoms:**

**If ingested:** Rinse mouth. Seek immediate medical attention immediately. 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 immediate medical attention.

**Skin contact:** Flush area for 15 minutes with water and wash with soap and water. Contact a physician immediately. 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.

**Extinguishing Method / Equipment:** Use water spray, carbon dioxide, dry chemical powder, or alcohol-resistant foam.

**Method / Equipment:**

**Hazardous** Can decompose to emit toxic fumes under fire conditions, Carbon dioxide, carbon monoxide,

**Decomposition Info:** silver/silver oxides

**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:** 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. Ventilate and wash spill site after cleanup is complete..

**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

**Precautions:** 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 (2-8°C), dry area in a tightly closed product container under inert gas away from sources of ignition or flame. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Incompatibilities:** Heat and Light Sensitive, Strong oxidizing agents

**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 is below PEL/TWA of 0.0100mg/m<sup>3</sup> 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> Solid	<b>Melting Point:</b> 446 °F 230 °C	<b>Freezing Point:</b> N/A
<b>Color:</b> Off White Powder	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.</b> 191.32 g/mol	<b>Odor:</b> None	<b>Water Solubility:</b> Soluble
<b>Specific Gravity:</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 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 light, and moisture

**Incompatible materials:** Strong oxidizing agents, strong acids

**Decomposition products:** Carbon dioxide, carbon monoxide, silver/silver oxides

**Section 11: Toxicological Information**

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

**Toxicological Acute Studies**

**Information** No Data Available

**(product): Respiration:** No data available.

**Behavioral:** No data available

**Likely Routes of** Eye Contact

**Exposure:** Skin Contact

Inhalation

Ingestion - possible, but considered unlikely.

**Carcinogenicity or mutagenicity:** To the best of our knowledge the chemical, physical, and toxicological effects of this compound are not present at levels greater than or equal to 0.1% per IARC/ACGIH/NTP/OSHA.

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

**Other Notes:** May cause argyria (a slate gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver).

**Section 12: Ecological Information**

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**General information:** Very Toxic to Aquatic Life

**Aquatic toxicity:** Acute Toxicity - Fish And Invertebrates  
EC50: Daphnia- 0.004 mg/l- 48h

**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:  
Oxidizing Solid, n.o.s. Silver Chlorate

Hazard Class:

5.1

DOT Identification Number:

1479

DOT Shipping Label:

Environmentally Hazardous Substance , Solid, N.O.S. Silver Chlorate

Packaging Requirements:

Packaging Group II

**IMO/IMDG:** Same as DOT

**IATA:** Same as DOT

**Comments:** None

**Section 15: Regulatory Information**

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

**SARA:** SARA Hazard Classes:

Acute Health Hazard

SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

SARA Section 313 Notification:

Silver Compounds

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

**European Union (EU) Symbol of Danger:** Xi

**Regulatory Indication of Danger:** Oxidizing Solid

**Information: R:** 36/37/38

Irritating to eyes, respiratory system and skin.

**S:** 26-36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed

**S 61** - Avoid release to the environment. Refer to special instructions/safety data sheets

## **Section 16: Other Information**

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### **NFPA Rating**

Health: 2

Fire: 0

Reactivity: 2

### **HMIS Rating**

Health: 2

Fire: 0

Reactivity: 2

Personal

Protection: J

### **Precautionary Label**

Oxidizing solid

**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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