

**Safety Data Sheet**  
29 CFR 1910.1200

**Section 1: Company and Product Identification**


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**Product Name:** Osmium Powder, Sponge

**Product Code:** 4000

**CAS #:** 7440-04-2

**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:** Warning

**Hazard Category:** Serious eye damage/eye irritation Cat 1  
Skin corrosion/irritation Cat 2  
Specific target organ tox, single exp. Cat 3 (resp irrit)  
Acute tox, inh. Cat 5  
Acute tox, oral Cat 5

**Hazard Statements:** H318: Causes serious eye damage  
H315: Causes skin irritation  
H335: May cause respiratory irritation  
H333: May be harmful if inhaled  
H303: May be harmful if swallowed

**Precautionary Statements:** P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P337+313: If eye irritation persists get medical advice/attention  
P308+313: IF exposed or concerned: Get medical advice/attention

**Hazards not otherwise classified:** Conditions Aggravated By Exposure  
May cause irritation of the respiratory system. Maintain housekeeping and personal hygiene to minimize exposure and prevent sensitization.  
Conditions Aggravated By Overexposure  
To the best of our knowledge, the chemical, the physical, and toxicological properties have not been thoroughly investigated.

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


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Hazardous substance (name)	Hazard Category	CAS#	Weight %
Osmium Powder, Sponge	Irritant	7440-04-2	100
<b>Chemical Name:</b> Osmium Powder <b>Chemical Formula:</b> Os	Irritating to the eyes, respiratory system and skin		

**Section 4: First Aid Measures**

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**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 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 immediate medical attention.

**Skin contact:** Flush area for 15 minutes with water and wash with soap and water. If discomfort occurs or persists, contact a physician. Remove contaminated clothing and shoes and wash before reuse.

**Section 5: Fire Fighting Measures**

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**General Info:** Avoid breathing vapors, gases and fumes. Firefighters should wear self-contained breathing apparatus and full protective gear. Eliminate sources of ignition.

**Extinguishing Method / Equipment:** For small (incipient) fires, use water spray or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective.

**Hazardous Decomposition Info:** Constituents associated with burning / combustion are to be considered toxic. Firefighters should wear self-contained breathing apparatus and full protective gear.

**Section 6: Accidental Release Measures**

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**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 or soak up and place in sealed container for reclamation or disposal, taking care to avoid dusting. Ventilate area and wash spill site after pick-up is complete.

Small Spills: May be mixed with vermiculite, sand or other suitable inert material and swept. Sweep or soak up and place in sealed container. Taking care to avoid dusting.

**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 Precautions:** Do not handle until all safety precautions have been read and understood. Keep containers tightly closed. Ensure adequate ventilation. Avoid breathing dust. 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. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Incompatibilities:** Strong oxidizing agents, halogens, chlorine trifluoride, oxygen difluoride

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

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**General / Engineering Controls:** Ventilation: Local Exhaust: Required in handling area

**Controls:** Mechanical: Desirable to insure concentration of material below TLV/TWA levels  
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** Utilize organic vapor respirator if airborne levels are not maintained or if ventilation is inadequate.  
**Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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> Solid Powder	<b>Melting Point:</b> 3045°C	<b>Freezing Point:</b> N/A
<b>Color:</b> Blue Gray	<b>Boiling Point/Range:</b> 5000°C	<b>pH:</b> N/A
<b>Molecular Wt. Rh</b> 102.91	<b>Odor:</b> Odorless	<b>Water Solubility:</b> No Data
<b>Specific Gravity:</b> 12.41	<b>Flash Point:</b> N/A	<b>Part. Coeff (n-octanol/water vapor pressure):</b> N/A
<b>Upper Flam Limits:</b> N/A	<b>Lower Flam Limits:</b> N/A	<b>Autoignition Temp:</b> N/A
<b>Density:</b> 22.6 g/cm	<b>Viscosity:</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:** At room temperature and exposed to air, osmium powder may gradually oxidize to form very toxic osmium (VIII) oxide. Therefore, store in a tightly closed sealed container.

**Conditions to Avoid:** Heat, flames and sparks. Extremes of temperature and direct sunlight

**Incompatible materials:** Oxygen, Halogens, Phosphorus

**Decomposition products:** Hazardous decomposition products formed under fire conditions – osmium 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 Information** Subacute Toxicity:

**Information (product):** Oxidation of osmium may form the volatile and highly irritating osmium(VIII)oxide. Exposure may cause bronchitis and dermatitis.

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

### Toxicological Information (contained substances)

**Carcinogenicity or mutagenicity:** No data Available

**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 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

Non-Hazardous

Hazard Class

NA

Secondary Hazard Class

NA

**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:** Listed in the TSCA

**SARA Components:** **SARA 302 Components:** SARA 302: This material does not contain any chemical components SARA Title III, Section 302 reporting requirements.

**SARA 313 Components:** **SARA 313:** This material does not contain any chemical components with known CAS numbers that are above the threshold reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** Acute Health Hazard

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

**States Right to Know Massachusetts Right To Know Components:** No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components:** Osmium, CAS #7440-04-2

**New Jersey Right To Know Components:** Osmium, CAS #7440-04-2

**California Prop. 65 Components:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

### Section 16: Other Information

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**NFPA Rating**

Health: 2

Fire: 0

Reactivity: 1

**HMS Rating**

Health: 2

Fire: 0

Reactivity: 1

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

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