

## Safety Data Sheet

### 29 CFR 1910.1200

#### Section 1: Company and Product Identification

**Product Name:** Rhenium (IV) Oxide

**Product Code:** 1008

**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

GHS07

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**Hazard Pictograms:**



**Signal Word:** Warning

**Hazard Category:** Serious eye damage/eye irritation Cat 3  
 Skin corrosion/irritation Cat 3  
 Acute tox, oral Cat 5  
 Acute tox, inh. Cat 5

**Hazard Statements:** H320: Causes eye irritation  
 H316: Causes mild skin irritation  
 H303: May be harmful if swallowed  
 H333: May be harmful if inhaled

**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  
 P308+313: IF exposed or concerned: Get medical advice/attention  
 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:** Not applicable, none known. The toxicological properties of this material have not been fully investigated. This product is considered non-hazardous when evaluated by criteria established in the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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

| Hazardous substance (name)  | Hazard Category | CAS#       | Weight % |
|---|-----------------|------------|----------|
| Rhenium (IV) Oxide  | Irritant        | 12036-09-8 | 0 - 100  |
| Chemical Family: Platinum group metal oxide<br>Chemical Formula: ReO <sub>2</sub> |                 |            |          |

#### Section 4: First Aid Measures

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**General Info:** Ensure proper ventilation.

**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 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.

#### Section 5: Fire Fighting Measures

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**General Info:** Product is not flammable

**Extinguishing Method / Equipment:** In case of fire, use water fog, dry chemical, CO<sub>2</sub>, or "alcohol" foam. 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.

In case of fire, can decompose to emit toxic and other hazardous decomposition products.

#### 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 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, avoid generating dust. Collect material and dispose

Small Spills: Wash and collect to waste receptacles.

**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

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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/vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling.

**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.

**Recommendations for Storage:** Store in cool, dry area in a tightly closed product container away from oxidizing agents. Do not store directly on ground.

**Incompatibilities:** Store away from strong acids or oxidizing agents. Refer to Section 10.

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

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**General / Local Exhaust:** Required in handling area  
**Engineering Controls:** levels  
**Mechanical:** Desirable to insure concentration of material below TLV/TWA  
**Other:** Closed Ventilation system – (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:** Utilize organic vapor respirator if airborne levels are not maintained or if ventilation is inadequate.  
**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> 1832 °F 1000 | <b>Freezing Point:</b> N/A                |
| <b>Color:</b> Black               | <b>Boiling Point/Range:</b> N/A    | <b>pH:</b> N/A                            |
| <b>Molecular Wt.</b> 186.2        | <b>Odor:</b> None                  | <b>Water Solubility:</b> Insoluble        |
| <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.  
**Incompatible materials:** Mixing with oxidizing agents  
**Decomposition products:** Metal Oxide fumes

**Section 11: Toxicological Information**

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**General Information:** No data available

**Toxicological Information (product):** Product has not been tested. Prolonged inhalation may be harmful to human health. Irritating in case of skin or eye contact. May be harmful if swallowed or in contact with skin.  
**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:** Not applicable.

**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:** Dispose of product in accordance with local, regional, and national regulations. Consult with waste contractor.

**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:** Non-hazardous

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

**IATA:** See regulation for information

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

**Comments:** None

**Section 15: Regulatory Information**

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

**SARA 313** 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 New Substances Notification requirements of the Canadian Environmental Protection Act (CEPA).

**European Union (EU)** R21 - Harmful in contact with skin

**Regulatory** R36/37/38 - Irritating to eyes, respiratory system and skin

**Information:** S22 - Do not breathe dust

S3/9/14/49 - Keep only in the original container, in a cool, well-ventilated place away from...(incompatible materials to be indicated by the manufacturer)

**Section 16: Other Information**

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**NFPA Rating**

Health: 1

Fire: 0

Reactivity: 0

**HMIS Rating**

Health: 1

Fire: 0

Reactivity: 0

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.

**Version Date:**

6/15/2015