

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Rhenium (VII) Oxide

Product Code: 1011

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

Hazard Pictograms:



Signal Word:

Danger

Hazard Category:

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

Hazard Statements:

H320: Causes eye irritation
 H315: Causes skin irritation
 H335: May cause respiratory irritation
 H272: May intensify fire; oxidizer

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
 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.

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Rhenium (VII) Oxide	Irritant/Oxidizer	1314-68-7	0 - 100
Chemical Name: Rhenium (VII) Oxide Chemical Family: Platinum group metal oxide Chemical Formula: Re ₂ O ₇			

Section 4: First Aid Measures

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

General Info: Flammability Class: Not flammable

Extinguishing: In case of fire, use water fog, dry chemical, CO₂, or "alcohol" foam.

Method / Equipment:

Hazardous: Constituents associated with burning / combustion are to be considered toxic. Firefighters should

Decomposition Info: wear self-contained breathing apparatus and full protective gear.

Rhenium (VII) oxide is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

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. 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: Large Spills: Contain actively spilling material if safe and easy to do so, avoid generating dust.

Equipment and Procedures: Collect material and dispose. Ventilate area and wash spill site after pick up is complete.

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

Safe Handling Handle under a dry protective gas. Wear proper personal protective equipment. Ensure good

Precautions: ventilation, avoid inhalation. 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 a rightly closed container under a dry protective gas in a cool dry place away from flammable substances and reducing agents.

Incompatibilities: Store away from strong acids. Keep away from combustible material. Refer to Section 10.

Section 8: Exposure Control / Personal Protection

General / Engineering Local Exhaust: Required in handling area

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

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

State: Solid	Melting Point: 567oF (297oC)	Freezing Point: N/A
Color: Yellow Powder	Boiling Point/Range: N/A	pH: N/A
Molecular Wt.: N/A	Odor: Non-Detectable	Water Solubility: 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: 6.103 g/cm3
VOC Content (lbs/gal): N/A	Viscosity: N/A	Autoignition Temp: N/A

Section 10: Stability and Reactivity

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: Oxidizing agents, Water/Moisture - Reacts with reducing agents and flammable substances

Decomposition products: None Known

Section 11: Toxicological Information

General Information: No data available. To the best of our knowledge, the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated.

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

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

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

DOT: Proper Shipping Name

Oxidizing solid, n.o.s. . (Rhenium (VII) Oxide)

Hazard Class

5.1

DOT Identification Number

1479

DOT Shipping Label

Oxidizing Solid . (Rhenium (VII) Oxide)

Packaging Requirements

PG III

IMO/IMDG: See regulation for information

IATA: Class: 5.1

UN/ ID number: 1479

Label: 5.1

Packaging Group: III

Proper Shipping Name: Oxidizing Solid, N.O.S. (Rhenium (VII) Oxide)

Always consult IATA shipping regulations before shipping.

OTHER: Inquire for further transport information.

Comments: None

Section 15: Regulatory Information

TSCA: All components of this compound are listed in the TSCA inventory.

SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

European Union (EU) GHS Classification

Regulatory Information: Oxidizing solids (Category 2)
 Skin irritation (Category 2)
 Eye irritation (Category 2A)
 Specific target organ toxicity - single exposure (Category 3)

GHS Label elements, including precautionary statements

Signal Word: Danger

Hazard statement(s)

H272 May intensify fire; oxidizer.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

Precautionary statement(s)

P220 Keep/Store away from clothing/ combustible materials.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Section 16: Other Information

<u>NFPA Rating</u>	<u>HMIS Rating</u>	<u>Precautionary Labels</u>
Health: 2	Health: 2	Oxidizer
Fire: 0	Fire: 0	Irritant
Reactivity: 1	Reactivity: 1	
Other: OX	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 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

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