

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Bis(1,5-cyclooctadiene) Rhodium (I) Tetrafluoroborate

Product Code: 7043

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

Chemtec: 800-424-9300
 World Wide - Call COLLECT to U.S: 703-527-3887

Section 2: Hazards Identification

GHS05

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Hazard Pictograms:



Signal Word: Warning

Hazard Category: Serious eye damage/eye irritation Cat 2
 Skin corrosion/irritation Cat 2
 Acute tox, inh. Cat 4
 Specific target organ tox, single exp. Cat 3 (resp irrit)
 Acute tox, oral Cat 4

Hazard Statements: H319: Causes serious eye irritation
 H315: Causes skin irritation
 H332: Harmful if inhaled
 H335: May cause respiratory irritation
 H302: Harmful if swallowed

Precautionary Statements: P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel
 P337+313: If eye irritation persists get medical advice/attention
 P308+313: IF exposed or concerned: Get medical advice/attention

Hazards not otherwise classified: Is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Bis (1,5-cyclooctadiene) Rhodium (I) Tetrafluoroborate	Corrosive	35138-22-8	
Rhodium		7440-16-6	0 - 25.3
Chemical Name: Bis (1,5-cyclooctadiene) Rhodium (I) Tetrafluoroborate Chemical Formula: [(1,5-C8H12)2Rh]BF4 Chemical Family: Platinum Group Metal	Irritating to the eyes, respiratory system and skin		

Section 4: First Aid Measures

General Info: Corrosive.

Causes burns. Harmful by inhalation, in contact with skin and if swallowed.

Notable Exposure symptoms: Irritation to skin, eyes and areas of contact.**If ingested:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Contact a physician or a poison control center immediately.**If inhaled:** Avoid breathing dust. 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. If not breathing, give artificial respiration. Get medical attention immediately**Eye contact:** Avoid eye contact. In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Consult a Physician.**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**

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:** Use CO₂ (Carbon Dioxide), dry chemical, or foam**Hazardous Decomposition Info:** Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides(NO_x), Hydrogen fluoride, Borane/boron oxides, Rhodium/rhodium 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:** Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal.**Equipment and Procedures:** Ventilate area and wash spill site after material pickup 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**

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:** Suitable: Keep tightly closed. Store in a cool dry place**Incompatibilities:** Strong oxidizing agents**Section 8: Exposure Control / Personal Protection**

General / Ventilation: Local Exhaust: Required in handling area**Engineering Controls:** 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:** Utilize organic vapor respirator if airborne levels are not maintained or if ventilation is inadequate.

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).

Ingredient(s) - Exposure Limits:

Rhodium

Rhodium Metal per ACGIH TWA 1 mg/m³Insoluble Compounds As Rh 1 mg/m³Soluble Compounds as Rh 0.01 mg/m³

Section 9: Physical and Chemical Properties

State: Solid	Melting Point: 190 °C	Freezing Point: N/A
Color: N/A	Boiling Point/Range: N/A	pH: N/A
Molecular Wt.: 406.08	Odor: N/A	Water Solubility: N/A
Specific Gravity: N/A	Flash Point: N/A	Part. Coeff (n-octanol/water): N/A
Upper Flam Limits: N/A	Lower Flam Limits: N/A	Vapor Pressure: N/A
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.

Stability: Air Sensitive (Store Cold)

Conditions to Avoid: Air, and Elevated Temperature

Incompatible materials: Strong oxidizing agents

Decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen fluoride, Borane/boron oxides, Rhodium/rhodium oxides

Section 11: Toxicological Information

General Information: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Toxicological Information (product): No Data Available

Section 12: Ecological Information

General information: No data available

Section 13: Disposal Information

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.

Section 14: Transport Information

DOT: Proper Shipping Name: Bis (1,5-cyclooctadiene) Rhodium (I) Tetrafluoroborate

Hazard Class: Not dangerous goods

IATA: Non-hazardous per IATA regulations. Consult IATA regulations before shipping.

Section 15: Regulatory Information

TSCA: This product is not TSCA listed. For R&D purpose only

SARA 302/311/313 This product is not required reporting under SARA Title 313 requirements

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.

European Union (EU) Regulatory Information: **Symbol of Danger:** C
Indication of Danger: Corrosive.
R: 34

Risk Statements: Causes burns.
S: 26 36/37/39 45

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other Regulations: **US CLASSIFICATION AND LABEL TEXT**

Indication of Danger: Corrosive.

Risk Statements: Causes burns. Harmful by inhalation, in contact with skin and if swallowed.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing.

Wear suitable protective clothing, gloves, and eye/face protection.

Section 16: Other Information

NFPA Rating

Health: 1
Fire: 0
Reactivity: 0

HMIS Rating

Health: 1
Fire: 0
Reactivity: 1
Personal
Protection: C

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.

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