

## Safety Data Sheet

### 29 CFR 1910.1200

#### Section 1: Company and Product Identification

**Product Name:** Allylruthenium(II) tricarbonyl bromide

**Product Code:** 8113

**CAS #:** 31781-74-5

**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

**Emergency Response:** Supplier Emergency Contacts & Phone Number

Chemtrec: 800-424-9300

World Wide - Call COLLECT to U.S: 703-527-3887



www.colonialmetals.com

#### Section 2: Hazards Identification

GHS07

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**Hazard Pictograms:**



**Signal Word:**

Warning

**Hazard Category:**

Serious eye damage/eye irritation Cat 3

Aspiration hazard Cat 2

Acute tox, inh. Cat 5

Skin corrosion/irritation Cat 3

Acute tox, oral Cat 5

**Hazard Statements:**

H320: Causes eye irritation

H305: May be harmful if swallowed and enters airways

H333: May be harmful if inhaled

H316: Causes mild skin irritation

H303: May be harmful if swallowed

**Precautionary Statements:**

P231+232: Handle under inert gas. Protect from moisture

P262: Do not get in eyes, on skin, or on clothing

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove

**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

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Allylruthenium(II) tricarbonyl bromide	Irritant; H320, H316, H333	31781-74-5	100
Chemical Family: Metal or Element Chemical Formula: C <sub>6</sub> H <sub>5</sub> O <sub>3</sub> RuBr			

**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: 5. Fire Fighting Measures**

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**General Info:** No unusual fire or explosion hazards

**Extinguishing** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**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.

**Section 6: 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.

Small Spills: 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. Handle under inert atmosphere.

**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. Store contents under inert gas.

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

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

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**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** 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).

**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 Powder	<b>Melting Point:</b> N/A	<b>Freezing Point:</b> N/A
<b>Color:</b> white to off-white	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.:</b> 306.07 g/mol	<b>Odor:</b> Odorless	<b>Water Solubility:</b> Insoluble
<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 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.

**Stability:** Stable

**Conditions to Avoid:** Mixing with organics

**Incompatible materials:** Halogens, hydrogen peroxide, chlorates, and hypochlorites, alcohols

**Decomposition products:** Metal oxide fume

## 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 (product):** No data available

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

### Toxicological Information (contained substances)

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

**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:** Not Regulated

**IMO/IMDG:** Not Regulated

**IATA:** Same as DOT 49 CFR regulations. Consult IATA before shipping

**Comments:** None

**Section 15: Regulatory Information**

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**TSCA:** This product is NOT listed under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance 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.

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

**Pennsylvania Right To Know Components:**  
 Allylruthenium(II) tricarbonyl bromide CAS-No. 31781-74-5

**New Jersey Right To Know Components:**  
 Allylruthenium(II) tricarbonyl bromide CAS-No. 31781-74-5

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

**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) Hazard Symbols:** Xi  
**Regulatory Risk Phrases:**  
**Information:** Safety Phrases  
 S 29 Do not empty into drains.  
 S 9 Keep container in a well-ventilated place.

**Section 16: Other Information**

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**NFPA Rating**

Health: 0  
 Fire: 0  
 Reactivity: 0

**HMIS Rating**

Health: 0  
 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 Safety Data Sheet (SDS) 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 representation as to the accuracy of the information in the SDS. The information is believe 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 SDS to your customer.*

*Colonial Metals, Inc.*

**SDS Author:** Colonial Metals Inc.- An Ames Goldsmith Company

**Rev. Date:**

11/23/2021