

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Potassium Pentachloronitrosyl Ruthenium (II)

Product Code: 8051

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

Hazard Pictograms:



Signal Word: Warning

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

Hazard Statements: H320: Causes eye irritation
 H316: Causes mild skin irritation
 H333: May be harmful if inhaled
 H313: May be harmful in contact with skin
 H303: May be harmful if swallowed
 H335: May cause respiratory irritation

Precautionary Statements: P261: Avoid breathing dust/fume/gas/mist/vapors/spray
 P264: Wash thoroughly after handling
 P270: Do not eat, drink or smoke when using this product
 P280: Wear protective gloves/protective clothing/eye protection/face protection

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 %
Potassium Pentachloronitrosyl Ruthenium (II)	Irritant	14854-54-7	97 - 100
Product Name: Potassium Pentachloronitrosyl Ruthenium (II) Chemical Name: Potassium Pentachloronitrosyl Ruthenium (II) Chemical Family: Platinum Group Metal Chemical Formula: K ₂ [Ru(NO)Cl ₅] Synonyms: Potassium pentachloronitrosylruthenate (II)			

Section 4: First Aid Measures

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: Not expected to be a problem in industry. The toxicological effects of this product have not been fully investigated. However if swallowed and discomfort occurs, contact a physician.

If inhaled: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Eye contact: Flush for 15 minutes with plenty of water. If discomfort occurs or persists, contact 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: Use proper safety equipment. Can decompose to emit toxic hazardous decomposition products.

Extinguishing: Use CO₂ (Carbon Dioxide), dry chemical, or foam.

Method / Equipment:

Hazardous: Firefighters should wear self-contained breathing apparatus and full protective gear. Hazardous

Decomposition Info: decomposition products formed under fire conditions.

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 Equipment and Procedures: Contain actively spilling material if safe and easy to do so. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete. Do not let product enter drains.

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: Keep tightly closed. Store in a cool dry place.

Incompatibilities: Strong bases, Mineral acids

Section 8: Exposure Control / Personal Protection

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 Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Additional Information: Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and hygiene facilities for washing

Section 9: Physical and Chemical Properties

State: Solid	Melting Point: 220 °C	Freezing Point: N/A
Color: N/A	Boiling Point/Range: N/A	pH: N/A
Molecular Wt. 386.55	Odor: N/A	Water Solubility: 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:** Strong bases, Mineral acids.
- Decomposition products:** Nitrogen oxides, Hydrogen chloride gas, Potassium oxides, Ruthenium oxides.

Section 11: Toxicological Information

- General Information:** Acute Oral Effects
May be harmful if ingested.
Acute Inhalation Effects
Material is irritating to mucous membranes and upper respiratory tract
- Toxicological Information (product):** Intraperitoneal
Mouse
127 MG/KG
LD50
Remarks: Behavioral: Muscle contraction or spasticity.
Behavioral: Coma. Lungs, Thorax, or Respiration: Respiratory depression.
- Likely Routes of Exposure:** Eye Contact
Skin Contact
Inhalation
Ingestion - possible, but considered unlikely.

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.

Section 14: Transport Information

- DOT:** Proper Shipping Name:
Not Dangerous Goods
Hazard Class:
Non-hazardous for shipping
- IATA:** IATA: Non-hazardous for shipping. Consult IATA regulations before shipping.

Section 15: Regulatory Information

- TSCA:** All ingredients of this product are excluded from listing under the U.S. Toxic Substances Control Act
- SARA SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- 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:** WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR
- European Union (EU) Symbol of Danger:** Xi
- Regulatory Information** **Indication of Danger:** Irritant.
R: 36/37/38
Risk Statements: Irritating to eyes, respiratory system and skin.
S: 26-36
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Section 16: Other Information

NFPA Rating

Health: 2
Fire: 0
Reactivity: 0

HMIS Rating

Health: 2
Fire: 0
Reactivity: 0
Personal
Protection: J

Precautionary Label

Irritant

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.

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