

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Tricarbonyldichlororuthenium (II) Dimer

Product Code: 8017

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



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: Warning

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

Hazard Statements: H319: Causes serious eye irritation
 H315: Causes skin irritation
 H332: Harmful if inhaled
 H312: Harmful in contact with skin
 H302: 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
 P271: Use only outdoors or in a well-ventilated area
 P280: Wear protective gloves/protective clothing/eye protection/face protection
 P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel
 P302+352: IF ON SKIN: Wash with soap and water
 P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove
 P312: Call a POISON CENTER or doctor/physician if you feel unwell
 P322: Specific measures (see First Aid Supplement on this label)
 P330: Rinse mouth
 P332+313: If skin irritation occurs: Get medical advice/attention
 P337+313: If eye irritation persists get medical advice/attention
 P362: Take off contaminated clothing and wash before reuse
 P403+233: Store in a well ventilated place. Keep container tightly closed
 P405: Store locked up
 P501: Dispose of contents/container in accordance with

Hazards not otherwise classified: Toxic by inhalation., Harmful by ingestion., Harmful by skin absorption., Irritant

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Tricarbonyldichlororuthenium (II) Dimer	Irritant	22594-69-0	
Chemical Formula: C6Cl4O6Ru2 Synonyms: CORM-2			

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: 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: Fire Fighting Measures

General Info: Not Combustible or Flammable - Use proper safety equipment.

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

Method / Equipment:

Hazardous Decomposition Info: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas, Ruthenium oxide

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: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Procedures:

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 container tightly closed in a dry and well-ventilated place. Keep in a dry place

Incompatibilities: Refer to Section 10. Strong oxidizing agents

Section 8: Exposure Control / Personal Protection

General / Engineering Controls: Use with adequate general and local exhaust ventilation

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: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN EU).

Section 9: Physical and Chemical Properties

State: Solid	Melting Point: N/A	Freezing Point: N/A
Color: Yellowish	Boiling Point/Range: N/A	pH: N/A
Molecular Wt.: 512.01 g/mol	Odor: N/A	Water Solubility: N/A
Evaporation rate: N/A	Flash Point: N/A	Part. Coeff (n-octanol/water): 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 oxidizing agents. Hygroscopic materials.

Decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas, Ruthenium oxide

Section 11: Toxicological Information

General Information: To the best of our knowledge, the chemical, the physical, and toxicological properties of this compound have not been thoroughly investigated

Section 12: Ecological Information

General information: No data available

Aquatic toxicity: No data available

Section 13: Disposal Information

Product disposal: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. 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:

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: Not Listed - OSHA Hazards

Toxic by inhalation., Harmful by ingestion., Harmful by skin absorption., Irritant

SARA SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

State Right to Know: Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Tricarbonyldichlororuthenium(II) dimer CAS-No. 22594-69-0 Revision Date

New Jersey Right To Know Components

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

Section 16: Other Information

NFPA Rating

Health: 2
Fire: 0
Reactivity: 0

HMIS Rating

Health: 2
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.

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