

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Pentamethylcyclopentadienyliridium(III) chloride dimer

Product Code: 3054

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

GHS07

GHS02

GHS09

BLANK

Hazard Pictograms:



Signal Word: Warning

Hazard Category: Acute tox, oral Cat 5
 Skin corrosion/irritation Cat 2
 Serious eye damage/eye irritation Cat 3
 Aspiration hazard Cat 2
 Sensitization, skin Cat 1
 Hazard to aquatic environment, acute Cat 3

Hazard Statements: H303: May be harmful if swallowed
 H315: Causes skin irritation
 H320: Causes eye irritation
 H305: May be harmful if swallowed and enters airways
 H317: May cause an allergic skin reaction
 H402: Harmful to aquatic life

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
 P308+313: IF exposed or concerned: Get medical advice/attention
 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: OSHA Hazards:
 Combustible Liquid, Skin sensitizer, Irritant, Very toxic to aquatic life

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Pentamethylcyclopentadienyliridium(III) chloride dimer	Irritant, Combustible	12354-84-6	100
Chemical Name: Pentamethylcyclopentadienyliridium(III) chloride dimer Chemical Family: Organometallic Compound Chemical Formula: C ₂₀ H ₃₀ Cl ₄ Ir ₂			

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: Fire And Explosion Hazards
Vapors may ignite and explode. Flammable liquid

Extinguishing Method / Equipment: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Hazardous Decomposition Info: Constituents associated with burning / combustion are to be considered toxic. Firefighters should wear self-contained breathing apparatus and full protective gear.

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 (SCBA) and clothing during clean-up. Avoid breathing dust. Ventilate area if easy to do so and wash spill site after clean up is complete. 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, avoid generating dust. Collect material and dispose.

Small Spills: Sweep 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 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.

Recommendations for Storage: Store in cool, dry area in a tightly closed product container away from sources of ignition or flame.

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 away from volatile acids.

Section 8: Exposure Control / Personal Protection

General / Engineering Ventilation: Local Exhaust: Yes**Controls:** Mechanical: Yes
Other: Fume Hood**Work Clothing:** Protective work clothing which covers skin and prevents exposures. Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and hygiene facilities for washing.**Eye/face protection:** Wear safety glasses with side shields or goggles or face shield.**Skin Protection:** Wear chemical resistant gloves.**Respiratory Protection:** Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).**Additional Information:** Contains no substances with occupational exposure limit values**Section 9: Physical and Chemical Properties**

State: Solid	Melting Point: N/A	Freezing Point: N/A
Color:	Boiling Point/Range: N/A	pH: N/A
Molecular Wt. 192.2	Odor: Pine	Water Solubility: No Data Available
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 Pressure: N/A
VOC Content (lbs/gal): N/A	Viscosity: N/A	Autoignition Temp: N/A
Specific Gravity: 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**Decomposition products:** Hazardous decomposition products formed under fire conditions - Carbon oxides, hydrogen chloride gas**Section 11: Toxicological Information**

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

(product): Acute Toxicity: No data available
Skin Corrosion / Irritation: No data available
Serious Eye Damage/ Eye Irritation: No data Available
Respiratory or skin sensitization: No data available
Germ Cell Mutagenicity: No data available
Reproductive Toxicity: No data available
Specific target organ toxicity – single exposure (GHS): No data available
Specific target organ toxicity – repeated exposure (GHS): No data available

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

Toxicological Information (contained substances)

Carcinogenicity or mutagenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Sensitization: Product is considered to be a possible sensitizer.

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.

Bio accumulative potential: No specific data available.

Section 13: Disposal Information

Product disposal: Consult Federal EPA, State and local regulations for proper disposal/recycle/reclamation

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: Pentamethylcyclopentadienyl Iridium(III) chloride dimer

DOT Identification Number: Not a Dangerous Good

Hazard Class: Not a Hazardous Good

IMO/IMDG: Considered non-hazardous for transport.

IATA: Considered non-hazardous for transport.

OTHER: Inquire for further transport information.

Section 15: Regulatory Information

TSCA: All ingredients of this product are listed or are excluded from listing under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SARA 302 Components: SARA 302: This material does not contain any chemical components SARA Title III, Section 302 reporting requirements.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that are above the threshold reporting levels established by SARA Title III, Section 313

SARA 311/312 Hazards: No SARA Hazards

Canadian DSL: This product contains the following components that are not on the Canadian DSL nor NDSL lists. Pentamethylcyclopentadienyl Iridium(III) chloride dimer CAS #: 12354-84-6

Section 16: Other Information

Health: 0	<u>HMIS Rating</u>
Fire: 1	Health: 0
Reactivity: 0	Fire: 1
	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 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: Dr. Ernest Addo

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