

Product# 3035

Safety Data Sheet

29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Bis(1,5-cylcooctadiene)Iridium Tetrafluoroborate

Product Code: 3035

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

BLANK

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
 Carcinogenicity Cat 1

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
 H350: May cause cancer

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:
 Target Organ Effect, Irritant, Carcinogen

Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Pentamethylcyclopentadienyl Iridium(III) chloride dimer	Irritant, Flammable	35138-23-9	100
Chemical Name: Bis(1,5-cylcooctadiene)Iridium Tetrafluoroborate Chemical Formula: (C8H12)2Ir]BF4			

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: Avoid breathing vapors, gases and fumes. Firefighters should wear self-contained breathing apparatus and full protective gear. Eliminate sources of ignition

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 and 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. Do not let product enter drains.

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: Keep container tightly closed in a dry and well-ventilated place. Store away from reducing agents. Store Cold (-20C under an inert gas)

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:** Use impervious clothing. Handle product with chemical-resistant gloves. Inspect gloves prior to use. Properly disposed of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands following glove removal.**Respiratory** Respiratory protection is not required. Where protection from nuisance levels of dusts are desired,**Protection:** 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: MP Range in Literature 32-48°C	Freezing Point: N/A
Color: Powder	Boiling Point/Range: N/A	pH N/A
Molecular Wt. N/A	Odor: N/A	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 Fluoride, Borane/boron oxides, Iridium Oxides**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 availableSkin Corrosion / Irritation: No data availableSerious Eye Damage/ Eye Irritation: No data AvailableRespiratory or skin sensitization: No data availableGerm Cell Mutagenicity: No data availableReproductive Toxicity: No data availableSpecific target organ toxicity – single exposure (GHS): No data availableSpecific 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: Bis(1,5-cylcooctadiene)Iridium Tetrafluoroborate

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

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

SARA 311/312 No SARA Hazards
Hazards:

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: Bis(1,5-cylcooctadiene)Iridium Tetrafluoroborate, CAS #35138-23-9

New Jersey Right To Know Components: Bis(1,5-cylcooctadiene)Iridium Tetrafluoroborate, CAS #35138-23-9

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

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

NFPA Rating

Health: 0
Fire: 1
Reactivity: 0

HMIS Rating

Health: 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: John Kerchner

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