

Product# 3017

## Safety Data Sheet

### 29 CFR 1910.1200

#### Section 1: Company and Product Identification

**Product Name:** Iridium (III) Chloride Hydrate

**Product Code:** 3017

**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

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**Hazard Pictograms:**



**Signal Word:** Warning

**Hazard Category:** Acute tox, oral Cat 4  
 Skin corrosion/irritation Cat 2  
 Serious eye damage/eye irritation Cat 2  
 Aspiration hazard Cat 2

**Hazard Statements:** H302: Harmful if swallowed  
 H315: Causes skin irritation  
 H319: Causes serious eye irritation  
 H305: May be harmful if swallowed and enters airways

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

#### Section 3: Composition / Information on Ingredients

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Iridium (III) Chloride Hydrate	Irritant	14996-61-3	99.9
<b>Chemical Family:</b> Platinum Group Metal Complex <b>Chemical Formula:</b> IrCl <sub>3</sub> .XH <sub>2</sub> O <b>Synonyms:</b> Iridium trichloridehydrate			

**Section 4: First Aid Measures**

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**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**

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**General Info:** Finely divided iridium may be a moderate fire hazard. As with any metal, upon heating may melt and with continued heating produce hazardous vapors. Emits toxic fumes under fire conditions.

**Extinguishing Method / Equipment:** Water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**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**

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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 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**

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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.

**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**

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**General / Engineering Controls:** Ventilation: Local Exhaust: Yes  
 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:** 0.1 mg/m<sup>3</sup> supplied air respirator with a full face piece

**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**

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<b>State:</b> Solids	<b>Melting Point:</b> 1405 °F 763 °C	<b>Freezing Point:</b> N/A
<b>Color:</b> Dark Brown Crystals	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.</b> 298.58	<b>Odor:</b> N/A	<b>Water Solubility:</b> Insoluble
<b>Evaporation rate:</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
<b>Specific Gravity:</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. Conditions To Avoid (Stability) Elevated temperature.

**Incompatible materials:** Strong oxidizing agents, acids, bases, alkaline metal salts, copper, zinc salts, cyanides

**Decomposition products:** Hydrogen chloride gas, iridium oxides

**Section 11: Toxicological Information**

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**General Information:**

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

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

**Toxicological Information (contained substances)**

**Carcinogenicity or mutagenicity:** No data available

**Sensitization:** Product is not expected to be a sensitizer.

**Section 12: Ecological Information**

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**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.

**Bioaccumulative potential:** No specific data available.

**Section 13: Disposal Information**

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**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**

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**DOT:** Considered non-hazardous for transport.

**IMO/IMDG:** Considered non-hazardous for transport.

**IATA:** Same as DOT. Always consult IATA manual before shipping.

**OTHER:** Inquire for further transport information.

**Section 15: Regulatory Information**

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**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.

**Canadian DSL:** 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.

DSL: Yes

NDSL: No

**European Union (EU) Regulatory Information:** Symbol of Danger: F-Xi  
Indication of Danger: Toxic

**Section 16: Other Information**

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Health: 2	<b><u>HMIS Rating</u></b>
Fire: 0	Health: 2
Reactivity: 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 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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