


# MATERIAL SAFETY DATA SHEET

## Ammonium Hexachloro Iridate (IV)

<b>NFPA</b> 	<b>HMIS</b> <table border="1"><tr><td>HEALTH</td><td style="text-align: center;">2</td></tr><tr><td>FLAMMABILITY</td><td style="text-align: center;">0</td></tr><tr><td>REACTIVITY</td><td style="text-align: center;">1</td></tr><tr><td>PERSONAL PROTECTION</td><td style="text-align: center;">J</td></tr></table>	HEALTH	2	FLAMMABILITY	0	REACTIVITY	1	PERSONAL PROTECTION	J
HEALTH	2								
FLAMMABILITY	0								
REACTIVITY	1								
PERSONAL PROTECTION	J								

### 1. Product And Company Identification

<b>Supplier</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States  Company Contact: Joseph Fittos III Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: jfittos@colonialmetals.com Web Site: colonialmetals.com	<b>Manufacturer</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States  Company Contact: Joseph Fittos III Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: jfittos@colonialmetals.com Web Site: colonialmetals.com
<b>Supplier Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887	<b>Manufacturer Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887

**Issue Date:** 09/14/2007

**Product Name:** Ammonium Hexachloro Iridate (IV)  
**Chemical Name:** Ammonium Hexachloroiridium (IV), Ammonium Iridium (IV) Hexachloride  
**CAS Number:** 16940-92-4  
**Chemical Family:** Platinum Group Metal Salts  
**Chemical Formula:** (NH<sub>4</sub>)<sub>2</sub> IrCl<sub>6</sub>  
**MSDS Number:** 3005  
**Product Code:** 3005

#### Synonyms

Diammonium hexachloroiridate, Diammonium iridium hexachloride

### 2. Composition/Information On Ingredients

Ingredient Name	CAS Number	Percent Of Total Weight
Ammonium Hexachloroiridium (IV)	16940-92-4	99.9

### EMERGENCY OVERVIEW

#### Harmful.

To the best of our knowledge the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated. Avoid elevated temperature. Product incompatible with strong reducing agents. Can decompose ammonia and chlorine vapors.

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## Ammonium Hexachloro Iridate (IV)

### 3. Hazards Identification

#### **Primary Routes(s) Of Entry**

Eye: Likely  
Skin: Likely  
Inhalation: Likely  
Ingestion: Likely

#### **Eye Hazards**

Irritation

#### **Skin Hazards**

Harmful and irritating.

#### **Ingestion Hazards**

Harmful to gastrointestinal tract.

#### **Inhalation Hazards**

Harmful and Irritating to upper respiratory tract and mucous membranes.

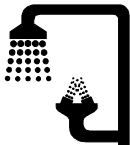
#### **Conditions Aggravated By Exposure**

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 of this compound have not been thoroughly investigated.

### **First Aid (Pictograms)**



### 4. First Aid Measures

#### **Eye**

Flush for 15 minutes with plenty of water. If discomfort occurs or persists, contact a physician immediately.

#### **Skin**

Immediately wash with soap and water and rinse thoroughly. If discomfort occurs or persists, contact a physician immediately. Remove contaminated clothing and shoes and wash before reuse.

#### **Ingestion**

Wash out mouth with water provided victim is conscious, never give anything by mouth to an unconscious person. Seek medical attention immediately.

#### **Inhalation**

Remove to fresh air immediately. If breathing is difficult give oxygen. If required provide artificial respiration. Contact a physician immediately.

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## Ammonium Hexachloro Iridate (IV)

### Fire Fighting (Pictograms)



### 5. Fire Fighting Measures

**Flash Point Method:** NA

**Flammability Class:** NA

#### **Fire And Explosion Hazards**

Use proper safety equipment. Can decompose to emit hydrogen chloride and nitrogen oxides.

#### **Extinguishing Media**

Use medium to fight surrounding fire.

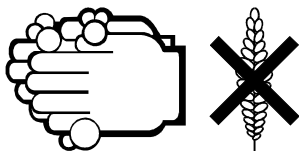
#### **Fire Fighting Instructions**

Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

### 6. Accidental Release Measures

Ensure adequate ventilation. Soak or sweep up and place in a sealed container. Person protected with full face shield and proper respirator for chlorine gas.

### Handling & Storage (Pictograms)



### 7. Handling And Storage

#### **Handling Precautions**

Ensure good ventilation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### **Storage Precautions**

Store in a tightly sealed container in a cool, dry place. Product is hygroscopic, store away from water and moisture.

#### **Work/Hygienic Practices**

Always use good personal hygiene after handling. Keep away from foodstuffs.

#### **Other Precautions**

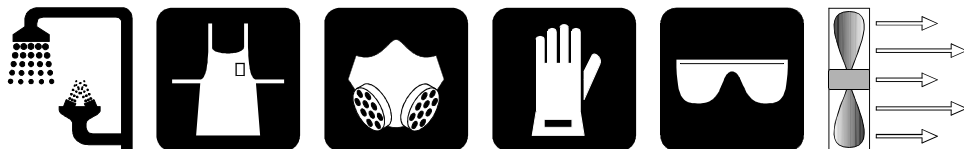
0.01 ppm high efficiency particular respirator/supplied air respirator/self-contained breathing apparatus; 0.2 ppm same as above with full face piece; 1 ppm powdered air purifying respirator with high efficiency filter/type C supplied air respirator operated in pressure demand mode. Store in a sealed container, plastic or plastic liner, in a cool, well ventilated, dry area away from volatile acids.

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## Ammonium Hexachloro Iridate (IV)

### 7. Handling And Storage - Continued

#### Protective Clothing (Pictograms)



### 8. Exposure Controls/Personal Protection

#### Engineering Controls

Ventilation: Local Exhaust: Required in handling area  
Mechanical: Desirable to insure concentration of material below TLV/TWA levels  
Other: NA

Safety shower and eyewash

#### Eye/Face Protection

ANSI approved safety glasses/goggles

#### Skin Protection

Rubber/Neoprene (use compatible chemical-resistant gloves).

#### Respiratory Protection

NIOSH approved chemical cartridge respirator for dust/mist/fume/radionuclide or self-contained breathing apparatus with full face shield.

#### Other/General Protection

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

### 9. Physical And Chemical Properties

#### Appearance

Red/Black crystals

**Chemical Type:** Mixture

**Physical State:** Solid

**Melting Point:** Decomposes °C

**Boiling Point:** NA °C

**Specific Gravity:** NE

**Molecular Weight:** 441.2

**Vapor Pressure:** NA

**Vapor Density:** 2.856 g/cm<sup>3</sup>

**pH Factor:** NA

**Solubility:** 0.7 gm/ 100 ml

**Evaporation Rate:** NA

### 10. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur

#### Incompatible Materials

Water/ moisture.

#### Hazardous Decomposition Products

Hydrogen chloride and nitrogen oxides.

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## Ammonium Hexachloro Iridate (IV)

### 11. Toxicological Information

#### Acute Studies

Oral LD50: 1852 mg/kg (rat)

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

### 12. Ecological Information

No Data Available...

### 13. Disposal Considerations

Place in 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.

### 14. Transport Information

No Data Available...

### 15. Regulatory Information

#### U.S. Regulatory Information

This compound is listed on the TSCA inventory.

#### Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all of the information required by the CPR.

DSL: Yes

NDSL: No

#### European Union (EU) Regulatory Information

Symbol of Danger: Xn

Indication of danger: Harmful

R: 20/21/22

Risk Statements: Harmful by inhalation, in contact with skin and if swallowed.

S: 26-36/37/39-45

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

#### DSCL - Europe (Pictograms)



### 16. Other Information

#### NFPA Rating

Health: 1

Fire: 0

Reactivity: 0

# MATERIAL SAFETY DATA SHEET

## Ammonium Hexachloro Iridate (IV)

### 16. Other Information - Continued

#### HMIS Rating

Health: 2

Fire: 0

Reactivity: 1

Personal Protection: J

#### Revision/Preparer Information

MSDS Preparer: Joseph J. Fittos III

MSDS Preparer Phone Number: 410-398-7200

This MSDS Supercedes A Previous MSDS Dated: 03/15/1998

### 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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