Section 1: Company and Product Identification

Product Name: Ammonium Hexachloroplatinate (IV)

Product Code: 6008

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

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: Danger

Hazard Category:
- Acute tox, oral Cat 4
- Acute tox, inh. Cat 3
- Acute tox, dermal Cat 4
- Skin corrosion/irritation Cat 2
- Serious eye damage/eye irritation Cat 1
- Sensitization, resp. Cat 1

Hazard Statements:
- H302: Harmful if swallowed
- H331: Toxic if inhaled
- H312: Harmful in contact with skin
- H315: Causes skin irritation
- H318: Causes serious eye damage
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

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+310: IF SWALLOWED: Immediately call a POISON CENTER or 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 comfortable for breathing
- P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
- P312: Call a POISON CENTER or doctor/physician if you feel unwell
- P330: Rinse mouth
- P332+313: If skin irritation occurs: Get medical advice/attention
- P337+313: If eye irritation persists get medical advice/attention
- P361: Remove/Take off immediately all contaminated clothing
- P403+233: Store in a well ventilated place. Keep container tightly closed
- P405: Store locked up
- P501: Dispose of contents/container in accordance with local/regional/national/international rules.
Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous substance (name)</th>
<th>Hazard Category</th>
<th>CAS#</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Hexachloroplatinate (IV)</td>
<td>Toxic</td>
<td>16919-58-7</td>
<td>100</td>
</tr>
</tbody>
</table>

Chemical Name: Ammonium Platinic Chloride, Diammonium Hexachloroplatinate
Chemical Family: Platinum Group Metal
Chemical Formula: \( \text{NH}_4\text{H}_2\text{PtCl}_6 \)
Synonyms: Ammonium chloroplatinate; Ammonium platinic chloride; Diammonium hexachloroplatinate; Diammonium

Section 4: First Aid Measures

General Info: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Notable Exposure symptoms:
- If ingested: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. Call a physician or a poison control center immediately.
- If inhaled: Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory protection.
- 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: 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.

Additional Info: Observe for any symptoms for several hours after exposure. Follow up with medical attention if symptoms develop.

Section 5: 5. Fire Fighting Measures

General Info: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Emits toxic fumes under fire conditions.

Extinguishing Method / Hazardous Decomposition:
- Carbon dioxide, appropriate foam or dry powder
- Constituents associated with burning / combustion are to be considered toxic. Firefighters should wear self-contained breathing apparatus and full protective gear. Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Section 6: 6. Accidental Release Measures

Personal: 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 and clothing during clean-up. Avoid breathing dust/vapors. 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: Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as saw dust. Provide ventilation.

Cleanup: 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: Do not handle until all safety precautions have been read and understood. Keep containers tightly closed. Ensure adequate ventilation. Avoid breathing dust/vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling.

Recommendations: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

Incompatibilities: Store away from strong volatile acids. Refer to Section 10.

Other Precautions: .01 ppm high efficiency particulate 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 / Ventilation: Local Exhaust: Required in handling area

Engineering Controls: Mechanical: Desirable to insure concentration of material below TLV/TWA levels

Other: Closed ventilation system with corrosive resistant materials

Safety shower and eyewash

Work Clothing: Protective work clothing which covers skin and prevents exposures.

Eye/face: Wear safety glasses with side shields or goggles or face shield.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use full-face particle respirator type N(( (US) or type 92 (EN 143) respirator cartridges as a back up to engineering controls. If the respirators the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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.

Additional Information: or exposed skin after using the product.

Section 9: Physical and Chemical Properties

State: Powder

Melting Point: N/A

Freezing Point: N/A

Color: Deep Yellow

Boiling Point/Range: N/A

Odor: None

pH N/A

Water Solubility: 0.7 g/100 ml (15°C)

Molecular Wt.: 443.89

Evaporation Rate: N/A

Flash Point: N/A

Part. Coeff (n-octanol/water)

Upper Flam Limits: N/A

Lower Flam Limits: N/A

Vapor Pressure: N/A

VOC Content (lbs/gal): N/A

Autoignition Temp: N/A

Specific Gravity: N/A

Section 10: Stability and Reactivity

General: Stable under normal temperatures and pressures. Dusts may form an explosion hazard. Boiling with potassium hydroxide yields a product that, after drying, explodes at 205°C or when mixed with combustible materials.

Incompatible: Strong oxidizing agents, strong acids

Decomposition: Hydrogen chloride, nitrogen oxides, ammonia and/or derivatives, nitrogen, chloride fumes.

products:
Section 11: Toxicological Information

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

Toxicological Information
Product has not been tested. Prolonged inhalation may be harmful to human health. Irritating in case of skin or eye contact. May be harmful if swallowed or in contact with skin.

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

Carcinogenicity or mutagenicity:
Oral (rat): 195 mg/kg; LD50

Section 12: Ecological Information

General
Product not tested.

Section 13: Disposal Information

Product disposal: Dispose of product in accordance with local, regional, and national regulations. Consult with waste contractor.

Container disposal: Treat empty containers with extra care. Consult waste contractor.

Other considerations: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. 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
DOT regulated - small quantity provisions apply (see 49CFR173.4)

IATA: Same as DOT 49 CFR. Consult IATA regulation before shipping

OTHER: Inquire for further transport information.

Section 15: Regulatory Information

TSCA: CAS# 16919-58-7 is listed on the TSCA inventory
SARA 313: No chemicals are reportable under Section 313

Canadian Regulatory Information: This product has a WHMIS classification of D1B, D2A. CAS# 16919-58-7 is listed on Canada's DSL List.

European Union (EU) Regulatory Information:
Risk Phrases:
- T - Toxic
- R 25 Toxic if swallowed.
- R 40 Possible risks of irreversible effects.
- Safety Phrases:
  - S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other International Regulations

Exposure Limits
CAS# 16919-58-7: OEL-ARAB Republic of Egypt: TWA 0.002 mg(Pt)/m3 (dust) OEL-AUSTRALIA: TWA 0.002 mg(Pt)/m3 OEL-BELGIUM: TWA 0.002 mg(Pt)/m3 OEL-CZECHOSLOVAKIA: TWA 0.001 mg(Pt)/m3; STEL 0.002 mg(Pt)/m3 OEL-DENMARK: TWA 0.002 mg(Pt)/m3 OEL-FINLAND: TWA 0.002 mg(Pt)/m3 OEL-GERMANY: TWA 0.002 mg(Pt)/m3 OEL-HUNGARY: STEL 0.002 mg(Pt)/m3 OEL-THE NETHERLANDS: TWA 0.002 mg(Pt)/m3 OEL-THE PHILIPPINES: TWA 0.002 mg(Pt)/m3 OEL-RUSSIA: STEL 0.005 mg/m3; Skin OEL-SWITZERLAND: TWA 0.002 mg(Pt)/m3 OEL-UNITED KINGDOM: TWA 0.002 mg(Pt)/m3 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV
Section 16: Other Information

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>HMIS Rating</th>
</tr>
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<tbody>
<tr>
<td>Health: 2</td>
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<tr>
<td>Fire: 0</td>
<td>Fire: 0</td>
</tr>
<tr>
<td>Reactivity: 1</td>
<td>Reactivity: 1</td>
</tr>
<tr>
<td>Personal</td>
<td>Protection: J</td>
</tr>
</tbody>
</table>

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.  
SDS Author: John Kerchner  
Version Date: 7/27/2015