Safety Data Sheet
29 CFR 1910.1200

Section 1: Company and Product Identification

Product Name: Platinum(II) chloride
Product Code: 6003
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

Signal Word: Danger
Hazard Category:
- Acute tox, oral Cat 5
- Specific target organ tox, single exp. Cat 3 (resp irrit)
- Sensitization, resp. Cat 1
- Skin corrosion/irritation Cat 1
- Serious eye damage/eye irritation Cat 1
- Acute tox, inh. Cat 5
- Sensitization, resp. Cat 1

Hazard Statements:
- H303: May be harmful if swallowed
- H35: May cause respiratory irritation
- H34: May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage
- H33: May be harmful if inhaled
- 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
- P342+311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P302+352: IF ON SKIN: Wash with soap and water
- P304+304: 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
- P331+30: 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
- P501: Dispose of contents/container in accordance with local/regional/national/international rules.

Hazards not OSHA Hazards: Corrosive
otherwise Conditions Aggravated By Exposure: Any respiratory conditions such as asthma classified:
### 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>Platinum(II) chloride</td>
<td>Corrosive</td>
<td>10025-65-7</td>
<td>&gt;99</td>
</tr>
</tbody>
</table>

Chemical Name: Platinum Chloride, Platinous Chloride
Chemical Name: Platinum Chloride, Platinous Chloride
Chemical Family: Platinum Group Metal Salts
Chemical Formula: PtCl₂

### 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**

Irritation to skin, eyes, and areas of contact.

**Symptoms:**

- **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.
- **Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
- **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:** 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 /**

Use water spray, foam, dry chemical, carbon dioxide or medium for primary source.

**Hazardous Decomposition**

Can decompose to emit toxic chlorine gas. Constituents associated with burning / combustion are to be considered toxic. Firefighters should wear self-contained breathing apparatus and full protective gear.

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

### Section 6: Accidental Release Measures

**Personal**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all precautions, 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**

Soak up and place in sealed container. Person protected with full face shield and proper respirator for chlorine vapor and dust. Ventilate area and wash spill site after pickup is complete.

**Procedures:**

- **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 cool, dry area in a tightly closed product container away from sources of ignition or flame.

**Incompatibilities:**

Mixing with reducing agents & oxidizing agents. 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: Mechanical: Desirable to insure concentration of material below TLV/TWA levels

Controls: 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: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory: 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).

Additional Hand protection:

Information: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Immersion protection:
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm

Splash protection:
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Solid</td>
</tr>
<tr>
<td>Melting Point</td>
<td>1078 °F</td>
</tr>
<tr>
<td>(decomposes)</td>
<td></td>
</tr>
<tr>
<td>581 °C (decomposes)</td>
<td></td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Cleaning Point/Range:</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>5-6</td>
</tr>
<tr>
<td>Color</td>
<td>Grayish Green to Black</td>
</tr>
<tr>
<td>Molecular Wt.</td>
<td>266</td>
</tr>
<tr>
<td>Odor</td>
<td>Pungent Odor</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble (Water)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Part. Coeff in octanol/water</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper Flam Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Lower Flam Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC Content (lbs/gal):</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>6</td>
</tr>
<tr>
<td>Density</td>
<td>5.87 g/cm3 @ 25C (77F)</td>
</tr>
</tbody>
</table>

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: Mixing with reducing agents & oxidizing agents

Decomposition products: Hydrogen Chloride Gas
Section 11: Toxicological Information

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

Toxicological Information:

Likely Routes of Exposure:
- Oral LD50
  - LD50 Oral - rat - 3,423 mg/kg

Skin irritation:
- Skin - rabbit - Mild skin irritation - 24 h

May cause allergic respiratory and skin reactions
- Germ cell mutagenicity

Genotoxicity in vitro:
- Human - lymphocyte
  - DNA inhibition
- Hamster - Embryo
  - Morphological transformation

Carcinogenicity or mutagenicity:
- No data available

Sensitization:
- Product is not expected to be a 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.

Bioaccumulative potential:
- No specific data available.

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.

RCRA Information:
- Waste solutions may meet the RCRA Corrosive characteristic

Section 14: Transport Information

DOT: Proper Shipping Name
- CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Platinum dichloride)

Hazard Class
- 8

DOT Identification Number
- 3260

DOT Shipping Label
- CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Platinum dichloride)

Packaging Requirements
- PG III
Section 15: Regulatory Information

OSHA Hazards: Corrosive
TSCA: This chemical is not TSCA registered. For R&D use only
SARA SARA 302 Components:
Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA Hazard Classes
Acute Health Hazard

SARA Section 313 Notification
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 302.

Right to Know: State Regulations:
Massachusetts Right To Know Components:
Platinum dichloride CAS-No. 10025-65-7

Pennsylvania Right To Know Components:
Platinum dichloride CAS-No. 10025-65-7

New Jersey Right To Know Components:
Platinum dichloride CAS-No. 10025-65-7

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

Canadian Regulatory Information:
Class E - Corrosive Material

European Union (EU) Regulatory Information:
R20/21/22 - Harmful by inhalation, in contact with skin, and if swallowed
R36 - Irritating to eyes
S23 - Do not breathe gas/fumes/vapor/spray.
S24/25 - Avoid contact with skin and eyes
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28 - After contact with skin, wash immediately with plenty of water/soap
S36/37/39 - Wear suitable protective clothing, gloves, and eye/face protection

Section 16: Other Information

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>HMIS Rating</th>
<th>Precautionary Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: 2</td>
<td>Health: 2</td>
<td>Corrosive and Irritant</td>
</tr>
<tr>
<td>Fire: 0</td>
<td>Fire: 0</td>
<td></td>
</tr>
<tr>
<td>Reactivity: 0</td>
<td>Reactivity: 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protection: 1</td>
<td></td>
</tr>
</tbody>
</table>

Disclaimer: In compliance with the OSHA Hazard communication Standard, 29 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
Version Date: 7/27/2015