

**Safety Data Sheet**  
**29 CFR 1910.1200**

**Section 1: Company and Product Identification**

**Product Name:** Potassium Tetrachloroplatinate (II)

**Product Code:** 6021

**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** Supplier Emergency Contacts & Phone Number

**Response:** Chemtrec: 800-424-9300  
 World Wide - Call COLLECT to U.S: 703-527-3887

**Section 2: Hazards Identification**

GHS06 GHS05 GHS07 BLANK

**Hazard Pictograms:**



**Signal Word:** Danger

**Hazard Category:** Acute tox, oral Cat 3  
 Sensitization, resp. Cat 1  
 Sensitization, skin Cat 1  
 Skin corrosion/irritation Cat 2  
 Serious eye damage/eye irritation Cat 1

**Hazard Statements:** H301: Toxic if swallowed  
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H317: May cause an allergic skin reaction  
 H315: Causes skin irritation  
 H318: Causes serious eye damage

**Precautionary Statements:** P261: Avoid breathing dust/fume/gas/mist/vapours/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  
 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.

**Hazards not** Conditions Aggravated By Exposure

**otherwise** May cause irritation of the respiratory system. Maintain housekeeping and personal hygiene to

**classified:** minimize exposure and prevent sensitization. Asthma attacks may occur upon the minutest reexposure to the substance

Conditions Aggravated By Overexposure:

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 %
Potassium Tetrachloroplatinum (II)	Toxic/Corrosive	10025-99-7	99.9
<b>Chemical Name:</b> Potassium Tetrachloroplatinate (II), Chloropotassiumplatinate, Potassium Platinous Chloride <b>Chemical Family:</b> Platinum Group Metal <b>Chemical Formula:</b> Cl <sub>4</sub> K <sub>2</sub> Pt <b>Synonyms:</b> Platinous Potassium Chloride, Potassium Chloroplatinite, Potassium platinochloride Potassium platinum (II) tetrachloride, Potassium tetrachloroplatinate (II) Potassium tetrachloroplatinate (II)			

**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:** 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: 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** Carbon dioxide, appropriate foam or dry powder  
**Method /**

**Hazardous** Constituents associated with burning / combustion are to be considered toxic. Firefighters should wear

**Decomposition** self-contained breathing apparatus and full protective gear. Use NIOSH/MSHA approved self-

**Info:** 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 **precautions,** ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate **protective** protective equipment and clothing during clean-up. Avoid breathing dust/vapors. Ventilate **equipment and** area if easy to do so. Contact local authorities if significant spillages cannot be contained. For personal **procedures:** protection, see section 8 of the SDS.

**Containment** Large Spills: Contain actively spilling material if safe and easy to do so, avoid generating dust.

**Equipment and** Neutralize with dilute alkalies solution or use soda ash or lime. Soak up and place in a sealed container.

**Procedures:** Personnel to be protected with full face shield and proper respirator for hydrogen chloride and chlorine. Collect material and dispose

**Cleanup** Collect all contaminated media, or other cleanup materials into a waste receptacle. If cleaning surface

**Procedures:** is necessary, utilize vacuum cleaner, provided adequate ventilation is available.

**Section 7: Handling and Storage**

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**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 for Storage:** Store in cool, dry area in a tightly closed product container away from sources of ignition or flame.

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

**Other Precautions:** .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 / 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:** 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 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 respirator is 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 Information:** Ingredient(s) - Exposure Limits

**Information:** Potassium Tetrachloroplatinum (II)  
ACGIH - TWA - 0.002 mg/m3 (Pt)  
MSHA Standard-Air - TWA 0.002 mg/m3 (Pt)  
OSHA PEL - 8H TWA 0.002 mg/m3 (

**Section 9: Physical and Chemical Properties**

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<b>State:</b> Solid	<b>Melting Point:</b> 250 °C	<b>Freezing Point:</b> N/A
<b>Color:</b> Dark Red Brownish Crystals	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.</b> 415.11	<b>Odor:</b> Hydrogen Chloride odor	<b>Water Solubility:</b> Moderately
<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>Specific Gravity:</b> 3.38	<b>Autoignition Temp:</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.

**Incompatible materials:** Mixing with mineral acids and organic reducing agents

**Decomposition products:** Hazardous Decomposition Products: Platinum oxide, Potassium oxides, Hydrogen chloride gas. Conditions To Avoid (Polymerization)

**Section 11: Toxicological Information**

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

**Toxicological Subchronic (Target Organ Effects)**

**Information:** Sensitization: May cause allergic reaction.

**(product): SIGNS AND SYMPTOMS OF EXPOSURE**

Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Exposure can cause:

Dermatitis. Asthma.

**TOXICITY DATA**

Oral

Child

400 mg/kg

LDLO

Remarks: Cardiac: Other changes.

**Intraperitoneal**

Mouse

45 MG/KG

LD50

Remarks: Tumorigenic: Active as anti-cancer agent.

**CHRONIC EXPOSURE - MUTAGEN**

Species: Human

Dose: 150 UMOL/L

Cell Type: lymphocyte

**Mutation test: Micronucleus test**

Species: Mouse

Dose: 50 MG/L

Cell Type: lymphocyte

**Mutation test: DNA inhibition**

Species: Mouse

Dose: 100 MG/L

Cell Type: leukocyte

**Mutation test: DNA inhibition**

**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:** 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**

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**DOT:** Proper Shipping Name  
 Toxic solid, inorganic, n.o.s. (Potassium tetrachloroplatinate (II))  
 Hazard Class  
 6.1  
 DOT Identification Number  
 UN3288  
 DOT Shipping Label  
 Toxic solid, inorganic, n.o.s. (Potassium tetrachloroplatinate (II))  
 Packaging Requirements  
 II

**IMDG:** UN number: 3288 Class: 6.1 Packing group: II EMS-No: F-A, S-A  
 Proper shipping name: TOXIC SOLID, INORGANIC, N.O.S. (Potassium tetrachloroplatinate (II))  
 Marine pollutant: No

**IATA:** UN number: 3288 Class: 6.1 Packing group: II  
 Proper shipping name: Toxic solid, inorganic, n.o.s. (Potassium tetrachloroplatinate (II))

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

**Comments:** None

**Section 15: Regulatory Information**

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**TSCA:** All ingredients of this product are listed under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**SARA 313 SARA Hazard Classes**  
 Acute Health Hazard

**SARA Section 313 Notification**  
 This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

**Canadian Regulatory Information:** Class D, Div 1 - Poisonous or Infectious Material: immediate and serious toxic effects  
 Class E - Corrosive Material

**European Union (EU) Regulatory Information:** Symbol of Danger: T  
 Indication of Danger: Toxic.

R: 25-38-41-42/43  
 Risk Statements: Toxic if swallowed. Irritating to skin. Risk of serious damage to eyes. May cause sensitization by inhalation and skin contact.

S: 22-26-36/37/39-45  
 Safety Statements: Do not breathe dust. 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 the label where possible).

**Section 16: Other Information**

**Other International US CLASSIFICATION AND LABEL TEXT**

**Regulations:** Indication of Danger: Toxic.

Risk Statements: Toxic if swallowed. Irritating to skin. Risk of serious damage to eyes. May cause sensitization

by inhalation and skin contact.

Safety Statements: Do not breathe dust. 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 the label where possible).

**NFPA Rating**

Health: 3  
Fire: 0  
Reactivity: 0  
Other: COR

**HMIS Rating**

Health: 3  
Fire: 0  
Reactivity: 0  
Personal  
Protection: J

**Precautionary Label**

Toxic by ingestion, Skin and respiratory sensitizer,  
Irritant

***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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