

Product# 4005

Safety Data Sheet
29 CFR 1910.1200

Section 1: Company and Product Identification**Product Name:** Potassium Hexachloroosium (IV)**Product Code:** 4005

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

GHS06

GHS05

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Hazard Pictograms:**Signal Word:** Danger

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

Hazard Statements: H301: Toxic if swallowed
H311: Toxic in contact with skin
H331: Toxic if inhaled
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

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
P261: Avoid breathing dust/fume/gas/mist/vapors/spray
P264: Wash thoroughly after handling
P280: Wear protective gloves/protective clothing/eye protection/face protection
P284: Wear respiratory protection
P302+352: IF ON SKIN: Wash with soap and water
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove
P310: Immediately call a POISON CENTER or doctor/physician

Hazards not otherwise classified: THE SUBSTANCE CAN BE ABSORBED INTO THE BODY BY INHALATION OF ITS VAPORS, BY INHALATION OF ITS AEROSOL AND BY INGESTION. A HARMFUL CONTAMINATION OF AIR CAN BE REACHED VERY QUICKLY ON EVAPORATION OF THIS SUBSTANCE AT 20 DEGREE C. CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.

OSHA Hazards

Oxidizing, Target Organ Effect, Highly toxic by inhalation, Highly toxic by ingestion, Highly toxic by skin absorption, Respiratory sensitizer, Corrosive

Target Organs

Eyes, Central nervous system, Male reproductive system., Kidney

Other hazards which do not result in classification

Primary Routes(s) Of Entry:

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

Eye Hazards:

REDNESS, PAIN, BLURRED VISION, LOSS OF VISION, SEVERE DEEP BURNS.

Skin Hazards:

POSSIBLE SKIN DISCOLORATION (green or black), REDNESS, SKIN BURNS, PAIN, BLISTERS. VERY TOXIC IN CONTACT WITH THE SKIN.

Ingestion Hazards:

ABDOMINAL CRAMPS, BURNING SENSATION, SHOCK OR COLLAPSE. VERY TOXIC IF SWALLOWED.

Inhalation Hazards:

BURNING SENSATION, COUGH, HEADACHE, WHEEZING, SHORTNESS OF BREATH, VISUAL DISTURBANCES, SYMPTOMS MAY BE DELAYED. VERY TOXIC IF INHALED.

Subchronic (Target Organ Effects):

EYES, SKIN, RESPIRATORY SYSTEM, CENTRAL NERVOUS SYSTEM.

Conditions Aggravated By Exposure:

AVOID ALL CONTACT WITH THIS CHEMICAL.

Conditions Aggravated By Overexposure:**Section 3: Composition / Information on Ingredients**

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Potassium Hexachloroosmium (IV)	Toxic	16871-60-6	99.9
Synonyms: Osmium Potassium Chloride		Chemical Family: Platinum Group Metal Salts Chemical Formula: K ₂ O ₈ Cl ₁₆	

Section 4: First Aid Measures

General Info: Ensure proper ventilation.

Notable Exposure symptoms: 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. CONTACT A PHYSICIAN IMMEDIATELY

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.. If victim is not breathing provide artificial respiration. If breathing is difficult give oxygen. 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. CONTACT A PHYSICIAN IMMEDIATELY

Skin contact: Take off immediately all contaminated clothing. Rinse with water thoroughly. CONTACT A PHYSICIAN IMMEDIATELY

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: Material is corrosive on exposure. Risk of fire and explosion when mixed with combustible substances. No contact with flammable substances. Not combustible but enhances combustion of other substances. Emits toxic fumes under fire conditions

Extinguishing Method / Equipment: Suitable: Carbon dioxide, dry chemical powder, appropriate foam

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

- Personal precautions, protective equipment and procedures:** EVACUATE AREA IMMEDIATELY! CONSULT AN EXPERT (Onsite HazMat Team or 911). Soak or sweep up or cover spill with dry sand or vermiculite and mix well. SWEEP SPILLED SUBSTANCE INTO CONTAINERS; DO NOT LET THIS CHEMICAL ENTER THE ENVIRONMENT (EXTRA PERSONAL PROTECTIVE EQUIPMENT WITH FULL PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS IS A MUST).
- 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. Ventilate area and wash spill site after cleanup is complete

Section 7: Handling and Storage

- 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. If eyes are exposed to vapor over a short period of time, night vision will be affected for about one evening. One will notice colored halos around lights. Avoid contact with eyes, skin and clothing. Avoid breathing dust or solution spray. Avoid exposure to vapor. Avoid prolonged or repeated exposure. Keep container closed when not in use. Use only with adequate personal protection. Use with local exhaust ventilation. Use only in closed systems. Use NIOSH approved respiratory protection.
- Recommendations for Storage:** Store in cool, dry area in a tightly closed product container, plastic or plastic liner, away from volatile acids. Do not store directly on ground and store away from sources of ignition or flame.
- Other Precautions:** 0.1 mg.m3 supplied air respirator with a full face piece, any self-contained breathing apparatus with a full face piece. Any chemical cartridge respirator with a high efficiency particulate filter with a full face piece and cartridges providing protection against osmic acid. Any air-purifying full face piece respirator (gas mask) with a chin style or front or back mounted canister providing protection against osmium tetroxide and having a high efficiency particulate filter. 1 mg/m3 any supplied air respirator with a full face piece and operated in a pressure-demand or other positive pressure mode

Section 8: Exposure Control / Personal Protection

- 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:** NIOSH approved chemical cartridge respirator for acid gas and dust/mist/fume or self-contained breathing apparatus with full face shield.
- Additional Information:** None

Section 9: Physical and Chemical Properties

State: Solid	Melting Point: 600 °C	Freezing Point: N/A
Color: Red Crystals	Boiling Point/Range: 266.0 °F 130 °C	pH: N/A
Molecular Wt. 481.12	Odor: Sharp chlorine like	Water Solubility: Soluble
Evaporation rate: N/A	Flash Point: N/A	Packing Density: 3.42 g/cm3 @25C (77F)

Upper Flam Limits: N/A	Lower Flam Limits: N/A	Vapor Pressure: N/A
VOC Content (lbs/gal): N/A	Viscosity: N/A	Autoignition Temp: N/A

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. Conditions To Avoid (Stability) Elevated temperature. Contact with Hydrochloric Acid will cause formation of poisonous chlorine gas.
- Incompatible materials:** Strong oxidizing agents
- Decomposition products:** Hydrogen chloride gas, potassium oxides.

Section 11: Toxicological Information

General Information: No Data Available

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

Toxicological Information (contained substances)

Carcinogenicity or mutagenicity: No data available

Sensitization: Product is not expected to be a sensitizer.

Section 12: Ecological Information

General information: Product not tested. Toxicity - Aquatic And Terrestrial Plants
THIS SUBSTANCE MAY BE HAZARDOUS TO THE ENVIRONMENT; SPECIAL ATTENTION SHOULD BE GIVEN TO CRUSTACEA.

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: Consult Federal EPA, State and local regulations for proper disposal/recycle/reclamation. RCRA Information OsO4 is a listed EPA Hazardous Waste - P087

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

DOT: Proper Shipping Name:

Toxic solid, corrosive, inorganic, n.o.s. (Dipotassium hexachloroosmate)

Hazard Class:

6.1

Secondary Hazard Class:

8

DOT Identification Number:

3290

DOT Shipping Label:

Toxic solid, corrosive, inorganic, n.o.s. (Dipotassium hexachloroosmate)

Packaging Requirements:

PG II

IMO/IMDG: UN number: 3290 Class: 6.1 (8) Packing group: II EMS-No: F-A, S-B**Proper shipping name:** TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S. (Dipotassium hexachloroosmate)**Marine Pollutant:** No**IATA: UN number:** 3290 Class: 6.1 (8) **Packing group:** II**Proper shipping name:** Toxic solid, corrosive, inorganic, n.o.s. (Dipotassium hexachloroosmate)**OTHER:** Inquire for further transport information.**Comments:** None**Section 15: Regulatory Information**

TSCA: THIS CHEMICAL IS TSCA LISTED**SARA 313 RCRA Hazardous Waste****Acute Health Hazard****Chronic Health Hazard****SARA Section 313 Notification:**

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 313.

SARA 302 Components:

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

State Regulations: Massachusetts Right To Know Components:

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components:

Dipotassium hexachloroosmate CAS-No. 16871-60-6 Revision Date

New Jersey Right To Know Components:

Dipotassium hexachloroosmate CAS-No. 16871-60-6 Revision Date

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

DSL: No

NDSL: Yes

European Union (EU) Regulatory Information:**Symbol of Danger:** T**Indication of Danger:** Toxic**R:** 23/24/25-34**Risk Statements:** Toxic by inhalation, in contact with skin and if swallowed. Causes burns.**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

NFPA Rating

Health: 3
Fire: 0
Reactivity: 0
Other:

HMIS Rating

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

Precautionary Label:

Highly toxic by inhalation, Highly toxic by ingestion,
Highly toxic by skin absorption, Respiratory sensitizer,
Corrosive

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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