

## Safety Data Sheet

### 29 CFR 1910.1200

#### Section 1: Company and Product Identification

---

**Product Name:** Trans-diamminedichloro Platinum (II)

**Product Code:** 6013

**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

---

GHS07

BLANK

BLANK

BLANK

**Hazard Pictograms:**



**Signal Word:**

Warning

**Hazard Category:**

Acute tox, oral Cat 5  
 Acute tox, inh. Cat 5  
 Acute tox, dermal Cat 5  
 Skin corrosion/irritation Cat 3  
 Serious eye damage/eye irritation Cat 2  
 Specific target organ tox, single exp. Cat 3 (resp irrit)

**Hazard Statements:**

H303: May be harmful if swallowed  
 H333: May be harmful if inhaled  
 H313: May be harmful in contact with skin  
 H316: Causes mild skin irritation  
 H319: Causes serious eye irritation  
 H335: May cause respiratory irritation

**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  
 P501: Dispose of contents/container in accordance with local/regional/national/international rules.

**Hazards not otherwise classified:**

Risk of serious damage to eyes.  
 Toxic by inhalation, in contact with skin, and if swallowed. Limited evidence of the carcinogenic effect.  
 May cause sensitization by inhalation and skin contact.  
 Target organs: Liver, kidneys.

**Section 3: Composition / Information on Ingredients**

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Tetraammineplatinum (II) Chloride Hydrate	Irritant	14913-33-8	100
<b>Chemical Name:</b> Trans-platinum (II) Diammine <b>Chemical Formula:</b> (NH <sub>3</sub> ) <sub>2</sub> PtCl <sub>2</sub>			

**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 Conditions Aggravated By Exposure:** Irritation to skin, eyes and areas of contact.

**symptoms:** May cause irritation of the respiratory system. Maintain housekeeping and personal hygiene to minimize exposure and prevent sensitization.

**If ingested:** Wash out mouth with water provided the victim is conscious. Never give anything by mouth to an unconscious person. Seek medical attention immediately

**If inhaled:** Remove to fresh air immediately. If victim is not breathing provide artificial respiration. If breathing is difficult give oxygen. If Contact a physician immediately

**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.

**Section 5: Fire Fighting Measures**

**General Info:** Use proper safety equipment. Can decompose to emit toxic fumes under fire conditions.

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

**Method /**

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

**Decomposition** self-contained breathing apparatus and full protective gear.

**Info:** In case of fire, can decompose to emit toxic gases when exposed to high heat or flames.

**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/vapor. 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** Sweep up and place in sealed container. Avoid raising dust. Ventilate area and wash spill site after Equipment and pickup is complete

**Procedures:**

**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**

**Safe Handling** Do not handle until all safety precautions have been read and understood. Keep containers tightly

**Precautions:** closed Ensure adequate ventilation. Avoid breathing dust/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling.

**Recommendations** Keep in a tightly closed container

**for Storage:**

**Incompatibilities:** Strong oxidizing agents Refer to Section 10.

**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 (Laboratory fume hood)

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

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

**protection:**

**Skin Protection:** Wear chemical resistant gloves.

**Respiratory** NIOSH approved chemical cartridge respirator for particulates and acid gas or self-contained breathing

**Protection:** apparatus with full face shield

**Additional** Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and hygiene Information: facilities

**Section 9: Physical and Chemical Properties**

<b>State:</b> Solid/Crystals	<b>Melting Point:</b> 340 °C	<b>Freezing Point:</b> N/A
<b>Color:</b> Yellow powder	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.</b> 300.06	<b>Odor:</b> Odorless	<b>Water Solubility:</b> N/A
<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> 2.74	<b>Autoignition Temp:</b> 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.

**Incompatible materials:** Strong oxidizing agents

**Decomposition products:** Nitrogen oxides, hydrogen chloride gas, platinum oxide.

**Section 11: Toxicological Information**

**General Information:** No data available

**Toxicological Subchronic (Target Organ Effects)**

**Information (product):** Liver. Kidneys. Skin. Female reproductive system, uterus. Bones

**Likely Routes of Exposure:** Eye Contact

Skin Contact

Inhalation

Ingestion - possible, but considered unlikely.

**Toxicological Information (contained substances)****Carcinogenicity or Chronic/Carcinogenicity:**

**mutagenicity:** Mouse

Intraperitoneal

dose: 32408 ug/kg

exposure time: 10 w

Frequency: I

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, thorax, or respiration: tumors

**Mutagenicity (Genetic Effects)**

Species: Human

Dose: 50 UMOL/L

Cell Type: lymphocyte

Mutation test: Micronucleus test

Species: Human

Dose: 50 UMOL/L

Exposure Time: 4H

Cell Type: fibroblast

Mutation test: DNA damage

Species: Human

Dose: 100 UMOL/L

SIGMA - P1525 www.sigma-aldrich.com Page 4

Cell Type: lung

Mutation test: DNA damage

Species: Human

Dose: 5 UMOL/L

Cell Type: HeLa cell

Mutation test: DNA damage

Species: Human  
Dose: 5 UMOL/L  
Cell Type: HeLa cell  
Mutation test: Other mutation test systems

Species: Human  
Dose: 20 MG/L  
Cell Type: Other cell types  
Mutation test: DNA damage

Species: Mouse  
Dose: 10 UMOL/L  
Cell Type: fibroblast  
Mutation test: DNA damage

Species: Mouse  
Dose: 10 UMOL/L  
Cell Type: leukocyte  
Mutation test: DNA damage

Species: Mouse  
Dose: 5 MG/L  
Cell Type: Other cell types  
Mutation test: DNA inhibition

Species: Hamster  
Dose: 10 UMOL/L  
Exposure Time: 2H  
Cell Type: fibroblast  
Mutation test: Morphological transformation.

Species: Hamster  
Dose: 320 UMOL/L  
Exposure Time: 2H  
Cell Type: lung  
Mutation test: DNA damage

Species: Hamster  
Dose: 250 UMOL/L  
Cell Type: lung  
Mutation test: Sister chromatid exchange

Species: Hamster  
Dose: 100 MG/L  
Cell Type: lung  
Mutation test: Mutation in mammalian somatic cells.

Species: Hamster  
Dose: 34 UMOL/L  
Cell Type: ovary  
Mutation test: Mutation in mammalian somatic cells.

Species: Mammal  
Dose: 50 UMOL/  
Cell Type: lymphocyte  
Mutation test: DNA L

**Miscellaneous Toxicological Information:**

Oral  
Rat  
> 5110 mg/kg  
LD50  
Intraperitoneal  
Mouse  
27 mg/kg  
LD50

**Irritation data:****Skin**

Rabbit: no irritation effect

**Eyes**

Rabbit: severe irritation effect

**Section 12: Ecological Information**

**Aquatic toxicity:** 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 NOTE:** Chemical additions, processing, or otherwise altering this material may make the waste **considerations:** management information presented above incomplete, inaccurate, or otherwise inappropriate

**Section 14: Transport Information**

**DOT:** Proper Shipping Name  
Non-Hazardous

**IATA:** IATA: Same as DOT regulation. Consult regulation before shipping.

**Section 15: Regulatory Information**

**SARA Section 313** This product does not require reporting under SARA Section 313.

**Notification**

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

**Information:** DSL: No NDSL: No

**European Union** Symbol of Danger: Xi  
**(EU) Regulatory** Indication of Danger: Irritant.

**Information:** R: 41

Risk Statements: Risk of serious damage to eyes.

S: 26-39

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

Wear eye/face protection.

**Section 16: Other Information**

Health: 2	<b>HMIS Rating</b>
Fire: 0	Health: 2
Reactivity: 0	Fire: 0
	Reactivity: 0
	Personal
	Protection: J

**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:** 9/17/2015