

## Safety Data Sheet

### 29 CFR 1910.1200

#### Section 1: Company and Product Identification

**Product Name:** Hydrogen Tetrachloro Aurate (III) Trihydrate

**Product Code:** 2001

**CAS #:** 16961-25-4

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

#### Section 2: Hazards Identification

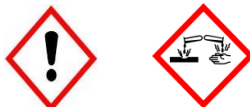
GHS07

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**Hazard Pictograms:**



**Signal Word:** Danger

**Hazard Category:** Sensitization, skin Cat 1  
 Skin corrosion/irritation Cat 1  
 Acute tox, oral Cat 4  
 Acute tox, inh. Cat 4

**Hazard Statements:** H317: May cause an allergic skin reaction  
 H314: Causes severe skin burns and eye damage  
 H302: Harmful if swallowed  
 H332: Harmful if inhaled  
 P260: Do not breathe dust/fume/gas/mist/vapors/spray  
 P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
 P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
 P405: Store locked up  
 P501: Dispose of contents/container in accordance with local/regional/national/international rules.

**Hazards not otherwise classified:**

None known

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

Hazardous substance (name)	Hazard Category	CAS#	Weight %
Hydrogen Tetrachloro Aurate (III) Hydrate	Danger	16961-25-4	99
Water		7732-18-5	75 - 99
<b>Chemical Name:</b> Gold (III) Chloride hydrate			

<b>Chemical Family:</b> Group 1B Metal Salt	
<b>Chemical Formula:</b> HAuCl <sub>4</sub> .3H <sub>2</sub> O	<b>Synonym :</b> Hydrogen Tetrachlorogold (III) Hydrate

**Section 4: First Aid Measures**

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**General Info:** Ensure proper ventilation.**Notable Exposure symptoms:** Irritation to skin, eyes and areas of contact.**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 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 immediate medical attention.**Skin contact:** Take off immediately all contaminated clothing. Rinse with water thoroughly. Get immediate medical assistance 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**

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**General Info:** Use proper safety equipment. If this product is involved in a fire Hydrogen chloride and metal oxide fume can be released.**Extinguishing Method / Equipment:** Product is not flammable, Use firefighting methods suitable to fight surrounding fires**Hazardous Decomposition Info:** 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. EMITS TOXIC FUMES UNDER FIRE CONDITIONS. If product is involved in a fire, Hydrogen chloride and Metal oxide fumes can be released

**Section 6: 6. Accidental Release Measures**

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**Personal precautions, protective equipment and procedures:** 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 (SCBA) and clothing during clean-up. Avoid breathing vapor. Ventilate area if easy to do so and wash spill site after clean up is complete. Contact local authorities if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.**Containment Equipment and Procedures:** Large Spills: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste. Ensure adequate ventilation**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.**Section 7: Handling and Storage**

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**Safe Handling Precautions:** Do not handle until all safety precautions have been read and understood. Keep containers tightly closed. Ensure adequate ventilation. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment and wash thoroughly after handling.**Work/Hygienic Practices:** Always use good personal hygiene after handling**Recommendations for Storage:** Store in the dark. Store away from water/moisture. Store away from strong bases and from oxidizing agents.

Product is hygroscopic. Store under dry inert gas. Protected from light, humidity, and water

**Other Precautions:** 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. 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 (Laboratory 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/chlorine (42 CFR part 84) and self-contained breathing apparatus with full face shield.

**Additional Information:** None

## Section 9: Physical and Chemical Properties

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<b>State:</b> Crystalline	<b>Melting Point:</b> N/A	<b>Freezing Point:</b> N/A
<b>Color:</b> Yellow	<b>Boiling Point/Range:</b> N/A	<b>pH:</b> N/A
<b>Molecular Wt.</b> 339.79	<b>Odor:</b> Odorless	<b>Water Solubility:</b> Soluble
<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>Viscosity:</b> N/A	<b>Autoignition Temp:</b> N/A
<b>Specific Gravity:</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.

**Conditions To Avoid (Stability):** Light and moisture

**Incompatible materials:** Bases and oxidizing agents

**Decomposition products:** Chlorine gas, hydrogen chloride and metallic gold

## Section 11: Toxicological Information

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**General Information:** Harmful if swallowed. Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach. The RTECS contains acute toxicity data for this product

**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  
Ingestion - possible, but considered unlikely.

#### Toxicological Information (contained substances)

**Carcinogenicity or mutagenicity:** No data available  
**Sensitization:** May cause an allergic skin reaction

### Section 12: Ecological Information

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**General information:** This product is manufactured in accordance to and in compliance with all aspects of the Toxic Substances Control Act (TSCA) and that all compounds are on the TSCA inventory; This product is also in compliance with the New Substances Notification Regulations (NSNR) and all ingredients are on the DSL/NDSL.

**Aquatic toxicity:** No Data Available

**Degradation / Mobility info:** No specific data available.

**Bioaccumulative potential:** No specific data available.

### Section 13: Disposal Information

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**Product disposal:** Consult Federal EPA, State and local regulations for proper disposal/recycle/reclamation

**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

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**DOT: Proper Shipping Name:** Corrosive solid, acidic, inorganic, n.o.s. (Hydrogen Tetrachloro Aurate (III) Trihydrate)

**DOT Identification Number:** 3260

**Hazard Class:** 8

**Packaging Requirements:** II

**DOT Shipping Label:** Corrosive

**IMO/IMDG:** Inquire for further transport information.

**IATA:** Same as DOT, always consult IATA manual before shipping

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

### Section 15: Regulatory Information

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

**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:** This product is listed in the DSL

**European Union (EU) Regulatory Information:** **Symbol of danger:** C  
**Indication of Danger:** Corrosive

**R:** 34-43

**Risk Statements:** Causes burns. May cause sensitization by skin contact

**S:** 26-27-36/37/39-45

**Safety Phrase:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. 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)

**Other International Regulations:** None

### Section 16: Other Information

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**NFPA Rating**

Health: 3  
Fire: 0  
Reactivity: 1  
Other: COR

**HMIS Rating**

Health: 3  
Fire: 0  
Reactivity: 1  
Personal  
Protection: J

**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

**Version Date:** 9/8/2015