

# MATERIAL SAFETY DATA SHEET



## Hydrogen Tetrachloro Aurate (III) hydrate

Ru Rh Pd Ag Re Os Ir Pt Au

<p><b>NFPA</b></p>	<p><b>HMIS</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #00b0f0; color: white;">HEALTH</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="background-color: #ff0000; color: white;">FLAMMABILITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: #ffff00;">REACTIVITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td style="text-align: center;">J</td> </tr> </table>	HEALTH	3	FLAMMABILITY	0	REACTIVITY	0	PERSONAL PROTECTION	J
HEALTH	3								
FLAMMABILITY	0								
REACTIVITY	0								
PERSONAL PROTECTION	J								

<b>1. Product And Company Identification</b>	
<p><b>Supplier</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States</p> <p><b>Company Contact:</b> Wayne Sher <b>Telephone Number:</b> 410-398-7200 <b>FAX Number:</b> 410-398-2918 <b>E-Mail:</b> wsher@colonialmetals.com <b>Web Site:</b> colonialmetals.com</p>	<p><b>Manufacturer</b> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States</p> <p><b>Company Contact:</b> Wayne Sher <b>Telephone Number:</b> 410-398-7200 <b>FAX Number:</b> 410-398-2918 <b>E-Mail:</b> wsher@colonialmetals.com <b>Web Site:</b> colonialmetals.com</p>
<p><b>Supplier Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887</p>	<p><b>Manufacturer Emergency Contacts &amp; Phone Number</b> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887</p>
<p><b>Issue Date:</b> 09/20/2010</p> <p><b>Product Name:</b> Hydrogen Tetrachloro Aurate (III) hydrate <b>Chemical Name:</b> Gold (III) Chloride hydrate <b>CAS Number:</b> 16903-35-8 <b>Chemical Family:</b> Group 1B Metal Salt <b>Chemical Formula:</b> H<sub>2</sub>AuCl<sub>4</sub>·3H<sub>2</sub>O <b>MSDS Number:</b> 2001 <b>Product Code:</b> 2001</p> <p><b>Synonyms</b> Choroauric acid, ACS Grade - ( CAS # 16961-25-4)</p>	

<b>2. Composition/Information On Ingredients</b>			
Ingredient Name	CAS Number		Percent Of Total Weight
Hydrogen Tetrachloro Aurate (III) hydrate	16903-35-8		99
water	7732-18-5		75 - 99

<b>EMERGENCY OVERVIEW</b>
<p><b>Corrosive.</b> Causes burns. May cause sensitization by contact with skin.</p> <p>To the best of our knowledge the chemical, physical, and toxicological properties of this compound</p>

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## EMERGENCY OVERVIEW - Continued

have not been thoroughly investigated.

### Hazards Identification (Pictograms)



### 3. Hazards Identification

#### Primary Routes(s) Of Entry

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

#### Eye Hazards

Causes burns.

#### Skin Hazards

Causes burns. May be harmful if absorbed through the skin.

#### Ingestion Hazards

May be harmful if swallowed.

#### Inhalation Hazards

Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if inhaled.

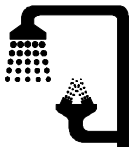
#### Conditions Aggravated By Exposure

May cause allergic skin reaction.

#### Conditions Aggravated By Overexposure

To the best of our knowledge, the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated.

### First Aid (Pictograms)



### 4. First Aid Measures

#### Eye

Flush for 15 minutes with plenty of water. If discomfort occurs or persists, contact a physician immediately.

#### Skin

Flush area for 15 minutes with copious amounts of water. If discomfort occurs or persists, contact a physician immediately. Remove contaminated clothing and shoes and wash before reuse.



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**4. First Aid Measures - Continued**

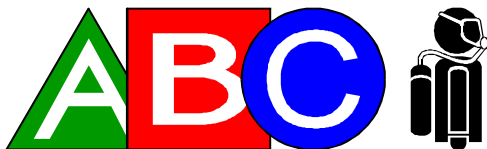
**Ingestion**

If swallowed, wash out mouth with water provided victim is conscious. Never give anything by mouth to an unconscious person. Contact a physician immediately.

**Inhalation**

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

**Fire Fighting (Pictograms)**



**5. Fire Fighting Measures**

**Flash Point:** NA °C

**Autoignition Point:** NA °C

**Flammability Class:** NA

**Fire And Explosion Hazards**

Use proper safety equipment. Emits toxic fumes under fire conditions.

**Extinguishing Media**

Dry Chemical powder.

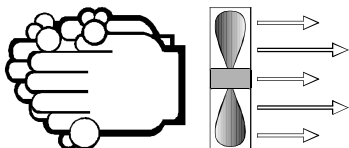
**Fire Fighting Instructions**

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

**6. Accidental Release Measures**

Sweep or soak up and place in sealed container; taking care to avoid dusting. Person protected with full face shield and NIOSH approved respirator and cartridge for dust. Ventilate area and wash spill site after pick-up is complete.

**Handling & Storage (Pictograms)**



**7. Handling And Storage**

**Handling Precautions**

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged or repeated exposure.

**Storage Precautions**

Keep in a tightly sealed container.

**Work/Hygienic Practices**

Light sensitive.

Always use good personal hygiene after handling.

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**7. Handling And Storage - Continued**

**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.

**Protective Clothing (Pictograms)**



**8. Exposure Controls/Personal Protection**

**Engineering Controls**

Ventilation: Local Exhaust: Required in handling area.  
 Mechanical: Desirable to insure concentration of material below TLV/TWA levels.  
 Other: Closed Ventilation system (Laboratory Fume Hood)

Safety shower and eyewash

**Eye/Face Protection**

ANSI approved safety glasses/goggles, full face shield.

**Skin Protection**

Rubber/Neoprene (use compatible chemical-resistant gloves)

**Respiratory Protection**

NIOSH approved chemical cartridge respirator for particulates and acid gas or self-contained breathing apparatus with full face shield.

**Other/General Protection**

Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and hygienic facilities for washing.

**9. Physical And Chemical Properties**

**Appearance**

Orange powder

**Chemical Type:** Mixture

**Physical State:** Solid

**Molecular Weight:** 393.83

**pH Factor:** acidic

**10. Stability And Reactivity**

**Stability:** Stable

**Hazardous Polymerization:** Will not occur


**Conditions To Avoid (Stability)**

Light and moisture.



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<p><b>10. Stability And Reactivity - Continued</b></p> <p><b><u>Incompatible Materials</u></b> Reducing agents.</p> <p><b><u>Hazardous Decomposition Products</u></b> Chlorine gas, hydrogen chloride and metallic gold.</p>
<p><b>11. Toxicological Information</b></p> <p>To the best of our knowledge the chemical, physical, and toxicological properties of this compound have not been thoroughly investigated.</p>
<p><b>12. Ecological Information</b></p> <p>No Data Available...</p>
<p><b>13. Disposal Considerations</b></p> <p>Consult Federal EPA, State, and local regulations for proper disposal/recycle/reclamation.</p> <p>NOTE: Chemical additions, processing, or otherwise altering this material may make the waste management information presented above incomplete, inaccurate, or otherwise inappropriate.</p> <p><b><u>RCRA Information</u></b> Waste solutions may meet the RCRA Corrosive characteristic.</p>
<p><b>14. Transport Information</b></p> <p><b><u>Proper Shipping Name</u></b> Corrosive solid, acidic, inorganic, n.o.s. (Hydrogen Tetrachloro Aurate (III))</p> <p><b><u>Hazard Class</u></b> 8</p> <p><b><u>DOT Identification Number</u></b> 3260</p> <p><b><u>DOT Shipping Label</u></b> Corrosive</p> <p><b><u>Packaging Requirements</u></b> II</p> <p><b><u>Additional Shipping Paper Description</u></b> IATA: same as DOT, always consult IATA manual before shipping.</p> <p><b><u>DOT (Pictograms)</u></b></p> 



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**15. Regulatory Information**

**U.S. Regulatory Information**

All ingredients of this product are listed 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 has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

**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 Statements: 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).

**DSCL - Europe (Pictograms)**



**16. Other Information**

**NFPA Rating**

Health: 3

Fire: 0

Reactivity: 0

Other: COR

**HMIS Rating**

Health: 3

Fire: 0

Reactivity: 0

Personal Protection: J

**Revision/Preparer Information**

MSDS Preparer: Joseph J. Fittos III

MSDS Preparer Phone Number: 410-398-7200

This MSDS Supersedes A Previous MSDS Dated: 10/12/2007

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## Disclaimer

In compliance with the OSHA Hazard Communication Standard, 29 C.F.R. 1910.1200, we are providing you with a Material 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 mind, a copy should be forwarded to the supervisor of the user or to the user themselves, and a 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.

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