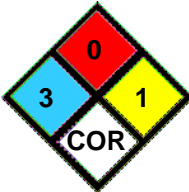


MATERIAL SAFETY DATA SHEET



Dihydrogen Hexachloroplatinum (IV) Hydrate

Ru
Rh
Pd
Ag
Re
Os
Ir
Pt
Au

NFPA 	HMIS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #00b0f0; color: white; padding: 2px;">HEALTH</td> <td style="text-align: center; padding: 2px;">3</td> </tr> <tr> <td style="background-color: #ff0000; color: white; padding: 2px;">FLAMMABILITY</td> <td style="text-align: center; padding: 2px;">0</td> </tr> <tr> <td style="background-color: #ffff00; padding: 2px;">REACTIVITY</td> <td style="text-align: center; padding: 2px;">1</td> </tr> <tr> <td style="padding: 2px;">PERSONAL PROTECTION</td> <td style="text-align: center; padding: 2px;">J</td> </tr> </table>	HEALTH	3	FLAMMABILITY	0	REACTIVITY	1	PERSONAL PROTECTION	J
HEALTH	3									
FLAMMABILITY	0									
REACTIVITY	1									
PERSONAL PROTECTION	J									

1. Product And Company Identification

<u>Supplier</u> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States Company Contact: Wayne Sher Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: wsher@colonialmetals.com Web Site: colonialmetals.com	<u>Manufacturer</u> Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States Company Contact: Wayne Sher Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: wsher@colonialmetals.com Web Site: colonialmetals.com
<u>Supplier Emergency Contacts & Phone Number</u> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887	<u>Manufacturer Emergency Contacts & Phone Number</u> Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887

Issue Date: 09/16/2010

Product Name: Dihydrogen Hexachloroplatinum (IV) Hydrate
Chemical Name: Chloroplatinic Acid, Platinic Acid
CAS Number: 26023-84-7
Chemical Family: Platinum Group Metal Salts
Chemical Formula: H₂PtCl₆.xH₂O
MSDS Number: 6011
Product Code: 6011

Synonyms
 ACS Grade - CAS # 18497-13-7
 Chloroplatinic Acid, Platinic Chloride Hydrate, Hexachloroplatinic Acid Hydrate
 Commerical Grade - CAS # 16941-12-1

2. Composition/Information On Ingredients

Ingredient Name	CAS Number	Percent Of Total Weight
Dihydrogen Hexachloroplatinum (IV) Hydrate (Chloroplatinic Acid)	26023-84-7	99 - 100

MATERIAL SAFETY DATA SHEET

EMI COLONIAL METALS INC. Dihydrogen Hexachloroplatinum (IV) Hydrate

Ru Rh Pd Ag Re Os Ir Pt Au

EMERGENCY OVERVIEW

TOXIC.
TOXIC IF SWALLOWED, CAUSE BURNS. MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.

Hazards Identification (Pictograms)



3. Hazards Identification

Primary Routes(s) Of Entry

Eyes: Likely
Inhalation: Likely
Skin: Likely
Ingestion: Likely

Eye Hazards

CAUSE BURNS TO THE EYE.

Skin Hazards

CAUSE BURNS, AND MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.

Ingestion Hazards

TOXIC IF SWALLOWED.

Inhalation Hazards

MATERIAL IS EXTREMELY DESTRUCTIVE TO THE TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. MAY BE HARMFUL IF INHALED. .

Signs And Symptoms

INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI. CHEMICAL PNEUMOITIS AND PULMONARY EDEMA.

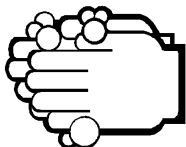
Conditions Aggravated By Exposure

ANY RESPIRATORY CONDITION SUCH AS ASTHMA, MAY LEAD TO PLATINOSIS FROM PLATINUM COMPOUNDS.

Conditions Aggravated By Overexposure

THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES OF THIS COMPOUND HAVE NOT BEEN THOROUGHLY INVESTIGATED.

First Aid (Pictograms)



MATERIAL SAFETY DATA SHEET



Dihydrogen Hexachloroplatinum (IV) Hydrate

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4. First Aid Measures

Eye

FLUSH FOR 15 MINUTES WITH COPIOUS AMOUNTS OF WATER SEPERATING UPPER AND LOWER EYELIDS WITH FINGERS. IF SYMPTOMS DEVELOP OR PERSIST CONTACT A PHYSICIAN IMMEDIATELY.

Skin

IN CASE OF CONTACT WITH SKIN, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES AND WASH BEFORE REUSE. CONTACT PHYSICIAN IMMEDIATELY.

Ingestion

IF INGESTED, WASH OUT MOUTH WITH WATER PROVIDED THE VICTIM IS CONSCIOUS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONCIOUS PERSON. CALL A PHYSICIAN IMMEDIATELY.

Inhalation

IF INHALED, REMOVE TO FRESH AIR. IF VICTIM IS NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL 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

CAN EMIT TOXIC FUMES UNDER FIRE CONDITIONS.

Extinguishing Media

SUITABLE: WATER SPRAY. CO₂, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM.

Fire Fighting Instructions

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. .

6. Accidental Release Measures

EVACUATE AREA IMMEDIATELY. WHEN CLEANING UP WEAR SCBA, RUBBER BOOTS, AND HEAVY RUBBER GLOVES. SWEEP UP AND PLACE IN A BAG AND HOLD FOR HAZARDOUS WASTE DISPOSAL. VENTILATE AREA WELL AND WASH SPILL SITE AFTER PICKUP IS FINISHED.

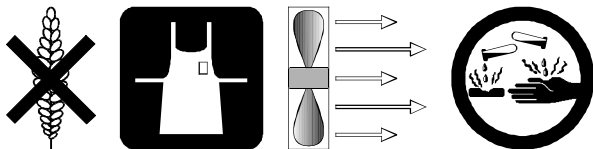


Dihydrogen Hexachloroplatinum (IV) Hydrate

Ru Rh Pd Ag Re Os Ir Pt Au

6. Accidental Release Measures - Continued

Handling & Storage (Pictograms)



7. Handling And Storage

Handling Precautions

DO NOT BREATHE DUST. DO NOT GET INTO EYES, ON SKIN, ON CLOTHING. AVOID PRLONGED OR REPEATED EXPOSURE.

Storage Precautions

KEEP TIGHTLY CLOSED. STORE IN A DRY COOL PLACE. THIS PRODUCT IS LIGHT AND MOISTURE SENSITIVE. STORE UNDER NITROGEN.

Work/Hygienic Practices

Use good personal hygiene. Wash thoroughly with soap and water after handling.

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 acid gas or self-contained breathing apparatus with full face shield.

Dihydrogen Hexachloroplatinum (IV) Hydrate**Ru Rh Pd Ag Re Os Ir Pt Au****8. Exposure Controls/Personal Protection - Continued****Other/General Protection**

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

Ingredient(s) - Exposure Limits

Dihydrogen Hexachloroplatinum (IV) Hydrate (Chloroplatinic Acid)
ACGIH - 0.002 MG (PT)/M3 for TWA
MSHA STANDARD -air - 0.002 MG (PT)/ M3 FOR TWA
OSHA PEL - 8 HOUR TWA 0.002 MG (PT)/M3

9. Physical And Chemical Properties**Appearance**

Brownish-yellow to orange red deliquescent crystals.

Chemical Type: Mixture

Physical State: Solid

Melting Point: 60 °C

Boiling Point: NA °C

Specific Gravity: 2.43 G/CM3

Molecular Weight: 409.82 Anhydrous

Vapor Pressure: NA

Vapor Density: NA

pH Factor: NA

Solubility: SOLUBLE IN WATER

Evaporation Rate: NA

10. Stability And Reactivity

Stability: MAY DECOMPOSE ON EXPOSURE TO LIGHT, TO MOIST AIR OR WATER

Hazardous Polymerization: WILL NOT OCCUR

Conditions To Avoid (Stability)

MAY DECOMPOSE ON EXPOSURE TO LIGHT. MAY DECOMPOSE ON EXPOSURE TO MOIST AIR OR WATER.

Incompatible Materials

BASES

Hazardous Decomposition Products

HYDROGEN CHLORIDE GAS, PLATINUM OXIDE.

Conditions To Avoid (Polymerization)

WILL NOT OCCUR.

11. Toxicological Information**Ingredient(s) - Toxicological Data**

Dihydrogen Hexachloroplatinum (IV) Hydrate (Chloroplatinic Acid)

INTRAVENOUS - RAT - 49 MG/KG

LD50

REMARKS: SENSE ORGANS AND SPECIAL SENSES (NOSE, EYE, EAR, AND TASTE): OLFACTION
OTHER CHANGES, BEHAVIORAL , TREMOR, GASTROINTESTINAL, HYPERMOTILITY, DIARRHEA.
INTRAPERITONEAL

MATERIAL SAFETY DATA SHEET



Dihydrogen Hexachloroplatinum (IV) Hydrate

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<p>11. Toxicological Information - Continued</p> <p><u>Ingredient(s) - Toxicological Data - Continued</u></p> <p>MOUSE 29097 MG/KG LD50</p> <p>Intravenous: Rat 49 MG/KG LD 50</p> <p>Remarks: Sense organs and special senses (nose, eye, ear, and taste) Olfaction: Other changes. Behavioral: Tremor. Gastrointestinal: hypermotility, diarrhea.</p> <p>Intraperitoneal: Mouse 29097 MG/KG LD 50</p>
<p>12. Ecological Information</p> <p>No Data Available...</p>
<p>13. Disposal Considerations</p> <p>Place in sealed container. 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><u>RCRA Information</u></p> <p>NL</p>
<p>14. Transport Information</p> <p><u>Proper Shipping Name</u> Chloroplatinic acid, solid</p> <p><u>Hazard Class</u> 8</p> <p><u>DOT Identification Number</u> 2507</p> <p><u>DOT Shipping Label</u> Corrosive</p> <p><u>Packaging Requirements</u> PG III</p> <p><u>Additional Shipping Paper Description</u> IATA: Same as DOT. Always consult IATA manual before shipping.</p>



Dihydrogen Hexachloroplatinum (IV) Hydrate

Ru Rh Pd Ag Re Os Ir Pt Au

TDG - Canada (Pictograms)



15. Regulatory Information

U.S. Regulatory Information

TSCA: This chemical is TSCA listed.

Canadian Regulatory Information

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

DSL: Yes

NDSL: No

European Union (EU) Regulatory Information

Symbol of Danger: T

Indication of Danger: Toxic

Risk#: 25-34-42/43

Risk Phrase: Toxic if swallowed. Cause burns. May cause sensitization by inhalation and skin contact.

Safety #: 36/37/39-26-45-22

Safety Phrase: Wear suitable protective clothing, gloves, and eye/face protection. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). Do not breathe dust.

Other International Regulations

WHMIS - Canada (Pictograms)



16. Other Information

NFPA Rating

Health: 3

Fire: 0

Reactivity: 1

Other: COR

HMIS Rating

Health: 3

Fire: 0

Reactivity: 1

Personal Protection: J

MATERIAL SAFETY DATA SHEET



Dihydrogen Hexachloroplatinum (IV) Hydrate

Ru Rh Pd Ag Re Os Ir Pt Au

16. Other Information - Continued

HMIS Rating - Continued

Revision/Preparer Information

MSDS Preparer: Joseph J. Fittos III

MSDS Preparer Phone Number: 410-398-7200

This MSDS Supersedes A Previous MSDS Dated: 08/28/2001

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.

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