


# MATERIAL SAFETY DATA SHEET

## Dihydrogen Hexachloro Platinite (IV) Solution

<b>NFPA</b> 	<b>HMIS</b> <table border="1"><tr><td>HEALTH</td><td style="text-align: center;">3</td></tr><tr><td>FLAMMABILITY</td><td style="text-align: center;">0</td></tr><tr><td>REACTIVITY</td><td style="text-align: center;">1</td></tr><tr><td>PERSONAL PROTECTION</td><td style="text-align: center;">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

**Supplier**

Colonial Metals, Inc.  
Building 20  
505 Blue Ball Road  
Elkton, MD 21921 United States

**Company Contact:** Joseph Fittos III  
**Telephone Number:** 410-398-7200  
**FAX Number:** 410-398-2918  
**E-Mail:** jfittos@colonialmetals.com  
**Web Site:** colonialmetals.com

**Manufacturer**

Colonial Metals, Inc.  
Building 20  
505 Blue Ball Road  
Elkton, MD 21921 United States

**Company Contact:** Joseph Fittos III  
**Telephone Number:** 410-398-7200  
**FAX Number:** 410-398-2918  
**E-Mail:** jfittos@colonialmetals.com  
**Web Site:** colonialmetals.com

**Supplier Emergency Contacts & Phone Number**

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

**Manufacturer Emergency Contacts & Phone Number**

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

**Issue Date:** 03/09/2009

**Product Name:** Dihydrogen Hexachloro Platinite (IV) Solution

**Chemical Name:** Platinum Chloride Solution, Chloroplatinic Acid Solution, Platinic acid solution

**CAS Number:** 16941-12-1

**Chemical Family:** Platinum Group Metal Salts

**Chemical Formula:** PtCl<sub>4</sub>

**MSDS Number:** 6012

**Product Code:** 6012-S

**Synonyms**

Platinum Chloride Solution, Chloroplatinic Acid Solution, Platinic acid solution

### 2. Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
Hydrochloric Acid	7647-01-0	<	0 - 14
Platinum Chloride	13454-96-1	<	0 - 70

### EMERGENCY OVERVIEW

**Corrosive. Toxic.**

# MATERIAL SAFETY DATA SHEET

## Dihydrogen Hexachloro Platinite (IV) Solution

### Hazards Identification (Pictograms)



### 3. Hazards Identification

#### Primary Routes(s) Of Entry

Eyes: 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. May cause vomiting and bloody diarrhea.

#### Inhalation Hazards

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

#### Chronic/Carcinogenicity Effects

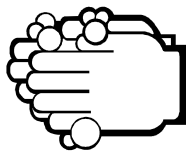
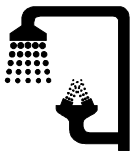
#### Conditions Aggravated By Exposure

May cause irritation of the respiratory system. Maintain housekeeping and personal hygiene to minimize exposure and prevent sensitization. Asthma attacks may occur upon the minutest reexposure to the substance.

#### 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

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention immediately.

#### Skin

Immediately flush skin with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Seek medical attention immediately.

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## Dihydrogen Hexachloro Platinite (IV) Solution

### 4. First Aid Measures - Continued

#### Ingestion

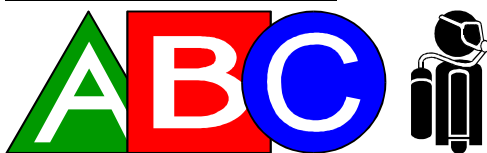
Wash out mouth with water provided the victim is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention immediately.

#### Inhalation

Remove to fresh air immediately. If not breathing provide artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

#### Note To Physician

### Fire Fighting (Pictograms)



### 5. Fire Fighting Measures

**Flash Point:** NA °C

**Autoignition Point:** NA °C

**Flammability Class:** NA

#### Fire And Explosion Hazards

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Emits toxic fumes under fire conditions.

#### Extinguishing Media

Carbon dioxide, appropriate foam or dry powder.

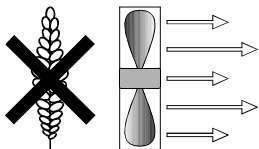
#### Fire Fighting Instructions

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

### 6. Accidental Release Measures

Neutralize with dilute alkalis solution or use soda ash or lime. Soak up and place in a sealed container. Person protected with full face shield and proper respirator for hydrogen chloride and chlorine.

### Handling & Storage (Pictograms)



### 7. Handling And Storage

#### Handling Precautions

Do not breathe vapor. Do not get in eyes, on skin or clothing. Avoid prolonged or repeated exposure. Use with proper ventilation.

#### Storage Precautions

Keep in a tightly sealed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area.

# MATERIAL SAFETY DATA SHEET

## Dihydrogen Hexachloro Platinate (IV) Solution

### 7. Handling And Storage - Continued

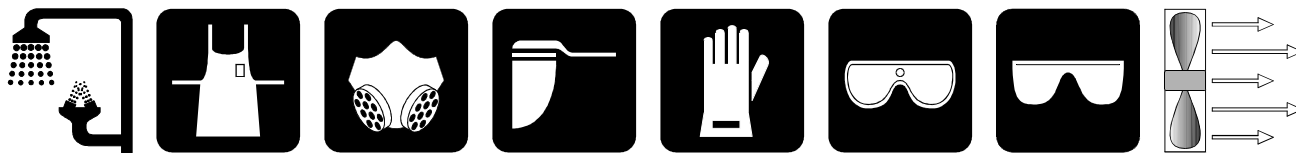
#### Work/Hygienic Practices

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 with corrosive resistant materials

Safety shower and eyewash

#### Eye/Face Protection

ANSI approved safety glasses/goggles, full face shield recommended.

#### Skin Protection

Rubber/Neoprene (use compatible chemical-resistant gloves)

#### Respiratory Protection

NIOSH approved chemical cartridge respiratory for acid gas/chlorine 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 hygiene facilities for washing

### 9. Physical And Chemical Properties

#### Appearance

Dark red solution

#### Odor

Hydrogen chloride odor

**Chemical Type:** Mixture

**Physical State:** Liquid

**Melting Point:** NA °C

**Boiling Point:** 1050 °C

**Specific Gravity:** 1.1-1.2

**Molecular Weight:** 336.90

**Vapor Pressure:** 14 mm Hg

**Vapor Density:** > 1.0

# MATERIAL SAFETY DATA SHEET

## Dihydrogen Hexachloro Platinite (IV) Solution

### 9. Physical And Chemical Properties - Continued

#### Odor - Continued

**pH Factor:** 1-2

**Solubility:** Finite

**Evaporation Rate:** > 1 (ether=1)

### 10. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur

#### Conditions To Avoid (Stability)

Elevated temperature

#### Incompatible Materials

Due to presence of acid, most metals, alkalies, metallic oxides, strong oxidants and certain organics. Also water reactive materials i.e. conc. sulfuric acid oleum & acetic anhydride. Carbonates, cyanides and sulfides in contact with HCl liberate toxic gases.

#### Hazardous Decomposition Products

Hydrogen chloride, chlorine gas and platinum oxide.

#### Conditions To Avoid (Polymerization)

Will not occur.

### 11. Toxicological Information

#### Acute Oral Effects

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

### 12. Ecological Information

No Data Available...

### 13. Disposal Considerations

Place in sealed container. Consult Federal EPA, State and local regulations for proper disposal/recycle/reclamation

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

### 14. Transport Information

#### Proper Shipping Name

Corrosive liquid, acidic, inorganic, n.o.s. (Contains Hydrochloric Acid)

#### Hazard Class

8

#### Secondary Hazard Class

NA

#### DOT Identification Number

3264

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## Dihydrogen Hexachloro Platinite (IV) Solution

### 14. Transport Information - Continued

#### DOT Shipping Label

Corrosive

#### Freight Class

See 49 CFR

#### Packaging Exceptions

See 49 CFR

#### Packaging Requirements

PG III

#### Additional Shipping Paper Description

IATA: Same as DOT 49 CFR. Consult IATA regulation before shipping.

#### DOT (Pictograms)



#### TDG - Canada (Pictograms)



### 15. Regulatory Information

#### U.S. Regulatory Information

TSCA: This product is TSCA listed.

#### SARA Section 313 Notification

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372):

CAS#	Chemical Name	Percent by Weight
7647-01-0	Hydrochloric Acid	>15

#### 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: No

NDSL: No

#### European Union (EU) Regulatory Information

Symbol of Danger: T

Indication of Danger: Toxic.

R: 25-34-42/43

Risk Statements: Toxic if swallowed. Causes burns. May cause sensitization by inhalation and 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

# MATERIAL SAFETY DATA SHEET

## Dihydrogen Hexachloro Platinite (IV) Solution

### 15. Regulatory Information - Continued

#### European Union (EU) Regulatory Information - Continued

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: 1

#### HMIS Rating

Health: 3

Fire: 0

Reactivity: 1

Personal Protection: J

#### Revision/Preparer Information

MSDS Preparer: Joseph J. Fittos III

MSDS Preparer Phone Number: 410-398-7200

This MSDS Supercedes A Previous MSDS Dated: 05/09/2003

### 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.