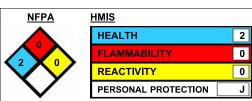
Platinum (Methylcyclopentadienyl [Trimethyl] Platinum) MSDS



MATERIAL SAFETY DATA SHEET

Platinum Deposition



1. Product And Company Identification

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

Supplier Emergency Contacts & Phone Number

Chemtrac: 800-424-9300

World Wide - Call COLLECT to U.S: 703-527-3887

Manufacturer 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

Manufacturer Emergency Contacts & Phone Number

Chemtrac: 800-424-9300

World Wide - Call COLLECT to U.S: 703-527-3887

Issue Date: 08/18/2005

Product Name: Platinum Deposition

Chemical Name: Trimethyl [(1,2,3,4,5-ETA.)-1 Methyl 2, 4-Cyclopentadien-1-YL] Platinum

CAS Number: 94442-22-5

Chemical Family: Platinum Group Metal Organometallic Complex

Chemical Formula: C9H16Pt

MSDS Number: 80 Product Code: 0080

<u>Synonyms</u>

Trimethyl [(1,2,3,4,5-ETA.)-1 Methyl 2, 4-Cyclopentadien-1-YL] Platinum, Platinum Deposition

2. Composition/Information On Ingredients

Ingredient Name	CAS Number	Percent Of Total Weight
Methylcyclopentadienyl (Trimethyl) Platinum	094442-22-2	100

EMERGENCY OVERVIEW

To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated. Avoid air. Product incompatible with oxidizing agents and air. Can decompose toxic fumes of COx and metal oxide.

Page 1 of 6



Platinum Deposition

3. Hazards Identification

Primary Routes(s) Of Entry

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

Eye Hazards

May cause eye irritation.

Skin Hazards

May cause mild to moderate skin irritation.

Inhalation Hazards

Coughing, shortness of breath, wheezing.

Conditions Aggravated By Exposure

Any respiratory condition such as asthma. Maintain housekeeping and personal hygene to minimize exposure and prevent sensitization. Platinum salts can cause a condition called Platnosis, effecting respiratory system.

Conditions Aggravated By Overexposure

May result in pulmonary fibrosis. To the best of our knowledge, the chemical, the physical, and toxicological properties have not been thoroughly investigated.

First Aid (Pictograms)





4. First Aid Measures

<u>Eye</u>

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

Skin

Flush area for 15 minutes with water and wash with soap and water. If discomfort occurs or persists, contact a physician.

Ingestion

If swallowed, contact a physician immediately. Do not give activated charcoal before or with syrup of ipecac. If swallowed, do not induce vomiting unless directed...

Inhalation

Remove to fresh air immediately. If discomfort occurs or persists, contact a physician. If not breathing, give artificial respiration.

Page 2 of 6

FEI COMPANY

FEI Limited Rights Data



Platinum Deposition

Fire Fighting (Pictograms)



5. Fire Fighting Measures

Flash Point: Non-flammable °F Flash Point Method: NA Flammability Class: NA

Fire And Explosion Hazards

Use proper safety equipment. Can decompose to emit toxic, irritating fumes of carbon monoxide, carbon dioxide and metal oxide.

Extinguishing Media

Dry chemical powder, carbon dioxide, or sand.

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

6. Accidental Release Measures

Pick up mechanically, caution air sensitive and place in sealed container for reclaimination or disposal. 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 And Storage Precautions

Avoid contact with eyes, prolonged or repeated contact with skin. Use compatible chemical resistant gloves. Wash hands thoroughly after handling.

Avoid breathing dust or vapor. Avoid contact with skin and clothing.

Storage Precautions

Store in a dry place. Do not store directly on ground...

Work/Hygienic Practices

Use good personal hygiene. Wash thoroughly after handling. 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.

Page 3 of 6



Platinum Deposition

7. Handling And Storage - Continued

Work/Hygienic Practices - Continued

Store in sealed container, plastic or plastic liners, in a cool, well ventilated, dry area away from air. Store under inert gas.

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

Eye/Face Protection

ANSI approved safety glasses/goggles

Skin Protection

Rubber/Neoprene (use compatible chemical-resistant gloves).

Respiratory Protection

NIOSH approved chemical cartridge respirator for particulates and dust 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.

Ingredient(s) - Exposure Limits

Methylcyclopentadienyl (Trimethyl) Platinum

Platinum Only::

NIOSH Exposure Limits: 0.002 mg/m3

OSHA: TWA 1 mg/m3 ACGIH: 0.002 mg/m3

9. Physical And Chemical Properties

Appearance

Off-white powder

Odor

Chemical Type: Mixture Physical State: Solid Melting Point: 30-31 °C Boiling Point: Sublimes °C

Page 4 of 6

FEI Limited Rights Data

PN 4035 272 21851-D ■ 7/11/07



CONFIDENTIAL



Platinum Deposition

9. Physical And Chemical Properties - Continued

Odor - Continued Specific Gravity: NE Molecular Weight: 319.34

Vapor Pressure: 0.053 mmHg Vapor Density: NE pH Factor: NA Solubility: Insoluble

10. Stability And Reactivity

Evaporation Rate: NE

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions To Avoid (Stability)

Air (store under inert gas)

Incompatible Materials

Mixing with oxidizing agents and air

Hazardous Decomposition Products

Toxic fumes of COx and metal oxide

11. Toxicological Information

No Data Available...

12. Ecological Information

No Data Available...

13. Disposal Considerations

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.

RCRA Information

NL

14. Transport Information

Proper Shipping Name

Non-Hazardous

Additional Shipping Paper Description

IATA Regulations: Non-Hazardous

15. Regulatory Information

U.S. Regulatory Information

TSCA: Yes

Canadian Regulatory Information

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

Page 5 of 6



Platinum Deposition

15. Regulatory Information - Continued

European Union (EU) Regulatory Information

Information not available.

16. Other Information

NFPA Rating Health: 2 Fire: 0 Reactivity: 0

HMIS Rating Health: 2 Fire: 0 Reactivity: 0

Personal Protection: J

Revision/Preparer Information

MSDS Preparer: Wayne Sher

MSDS Preparer Phone Number: 410-398-7200

This MSDS Supercedes A Previous MSDS Dated: 02/25/2002

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.

Printed Using MSDS Generator™ 2000

Page 6 of 6



★ FEI COMPANY