


# MATERIAL SAFETY DATA SHEET

## Platinum (IV) Oxide

|  |  |        |   |              |   |            |   |                     |   |
|--|--|--------|---|--------------|---|------------|---|---------------------|---|
| <b>NFPA</b><br> | <b>HMIS</b><br><table border="1"><tr><td>HEALTH</td><td>2</td></tr><tr><td>FLAMMABILITY</td><td>0</td></tr><tr><td>REACTIVITY</td><td>2</td></tr><tr><td>PERSONAL PROTECTION</td><td>J</td></tr></table> | HEALTH | 2 | FLAMMABILITY | 0 | REACTIVITY | 2 | PERSONAL PROTECTION | J |
| HEALTH   | 2  |        |   |              |   |            |   |                     |   |
| FLAMMABILITY   | 0  |        |   |              |   |            |   |                     |   |
| REACTIVITY   | 2  |        |   |              |   |            |   |                     |   |
| PERSONAL PROTECTION  | J  |        |   |              |   |            |   |                     |   |

### 1. Product And Company Identification

|  |  |
|--|--|
| <b>Supplier</b><br>Colonial Metals, Inc.<br>Building 20<br>505 Blue Ball Road<br>Elkton, MD 21921 United States<br><br><b>Company Contact:</b> Michael Doss - Dir. of Regulatory Affairs<br><b>Telephone Number:</b> 410-398-7200<br><b>FAX Number:</b> 410-398-2918<br><b>E-Mail:</b> mdoss@colonialmetals.com<br><b>Web Site:</b> www.colonialmetals.com | <b>Manufacturer</b><br>Colonial Metals, Inc.<br>Building 20<br>505 Blue Ball Road<br>Elkton, MD 21921 United States<br><br><b>Company Contact:</b> Michael Doss - Dir. of Regulatory Affairs<br><b>Telephone Number:</b> 410-398-7200<br><b>FAX Number:</b> 410-398-2918<br><b>E-Mail:</b> mdoss@colonialmetals.com<br><b>Web Site:</b> www.colonialmetals.com |
|--|--|

|   |   |
|---|---|
| <b>Supplier Emergency Contacts &amp; Phone Number</b><br>Chemtrac: 800-424-9300<br>World Wide - Call COLLECT to U.S: 703-527-3887 | <b>Manufacturer Emergency Contacts &amp; Phone Number</b><br>Chemtrac: 800-424-9300<br>World Wide - Call COLLECT to U.S: 703-527-3887 |
|---|---|

**Issue Date:** 03/07/2012

**Product Name:** Platinum (IV) Oxide  
**Chemical Name:** Adams catalyst  
**CAS Number:** 1314-15-4  
**Chemical Family:** Platinum Group Metals  
**Chemical Formula:** PtO<sub>2</sub>  
**MSDS Number:** 6007  
**Product Code:** 6007

#### Synonyms

Adams catalyst

### 2. Composition/Information On Ingredients

| Ingredient Name     | CAS Number | Percent Of Total Weight |
|---------------------|------------|-------------------------|
| Platinum (IV) Oxide | 1314-15-4  | 99 - 100                |

### EMERGENCY OVERVIEW

Oxidizer.  
Irritant.

### 3. Hazards Identification

#### Primary Routes(s) Of Entry

**Eyes:** Likely  
**Inhalation:** Likely  
**Skin:** Likely

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### 3. Hazards Identification - Continued

#### Primary Routes(s) Of Entry - Continued

Ingestion: Likely

#### Eye Hazards

Causes eye irritation.

#### Skin Hazards

May cause skin irritation. May be harmful if absorbed through the skin.

#### Ingestion Hazards

May be harmful if swallowed.

#### Inhalation Hazards

Causes respiratory tract irritation. May be harmful if inhaled.

#### Conditions Aggravated By Exposure

Any respiratory conditions such as asthma. Maintain housekeeping and personal hygiene to minimize exposure and prevent sensitization.

#### Conditions Aggravated By Overexposure

### 4. First Aid Measures

#### Eye

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

#### Skin

Wash with soap and copious amounts of water. If discomfort occurs or persists, contact a physician immediately. Remove contaminated clothing and shoes and wash before reuse.

#### Ingestion

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 victim is not breathing provide artificial respiration. Contact a physician immediately.

### 5. Fire Fighting Measures

**Flash Point:** NA °C

**Autoignition Point:** NA °C

**Flammability Class:** NA

#### Fire And Explosion Hazards

Finely divided platinum may ignite if contacted with flammable organic solvents. Powders may be subjected to self-heating if hydrogen or carbon monoxide are occluded.

#### Extinguishing Media

Water spray, foam, dry chemical or carbon dioxide.

#### Fire Fighting Instructions

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

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### 6. Accidental Release Measures

Sweep up (avoid dusting) or soak up with a wet paper towel or rag and place in a sealed container. Person protected with full face shield and proper respirator for dust. Ventilate area and wash spill site after pick up is complete.

### 7. Handling And Storage

#### Handling Precautions

Avoid contact with eyes, prolonged or repeated contact with skin. Avoid formation of dust and aerosols. Provide adequate ventilation. Keep away from ignition sources and combustible material.

#### Storage Precautions

Keep in a tightly sealed container in a cool, dry well ventilated place.

#### 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.

### 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 respiratory for dust/mist/fume/radionuclide 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

Brown powder

**Chemical Type:** Mixture

**Physical State:** Solid

**Melting Point:** 842 °F Decomposes 450 °C

**Specific Gravity:** 10

**Molecular Weight:** 227.09

**Solubility:** Insoluble

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## Platinum (IV) Oxide

### 10. Stability And Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur

**Conditions To Avoid (Stability)**

Temp. above 300C

**Incompatible Materials**

Organic materials and powdered metals.

### 11. Toxicological Information

**Acute Studies**

Oral

Rat

>8000 mg/kg

LD50

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

### 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.

### 14. Transport Information

**Proper Shipping Name**

Oxidizing solid, n.o.s. (Platinum dioxide)

**Hazard Class**

5.1

**DOT Identification Number**

1479

**Packaging Requirements**

PG II

**Additional Shipping Paper Description**

IATA: Same as DOT regulations. Consult IATA regulations before shipping.

### 15. Regulatory Information

**U.S. Regulatory Information**

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.

**European Union (EU) Regulatory Information**

Indication of Danger: Irritant

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### 15. Regulatory Information - Continued

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

Symbol of Danger: Xi

R: 20, 38

Risk Phrase: Harmful by inhalation. Irritating to the skin.

S: 24/25, 36/37/39

Safety Phrase: Avoid contact with skin and eyes. Wear suitable protective clothing, gloves, and eye face protection.

#### NFPA



#### HMIS

|                     |   |
|---------------------|---|
| HEALTH              | 2 |
| FLAMMABILITY        | 0 |
| REACTIVITY          | 2 |
| PERSONAL PROTECTION | J |

### 16. Other Information

#### Revision/Preparer Information

MSDS Preparer: Michael Doss - Dir. Reg. Affairs

MSDS Preparer Phone Number: 410-398-7200

This MSDS Supersedes A Previous MSDS Dated: 12/09/2003

#### 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.**