

# MATERIAL SAFETY DATA SHEET



## Rhodium (III) Nitrate Dihydrate

Ru
Rh
Pd
Ag
Re
Os
Ir
Pt
Au

### HMIS

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>REACTIVITY</b>	<b>2</b>
<b>PERSONAL PROTECTION</b>	<b>J</b>

### 1. Product And Company Identification

<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>

**Issue Date:** 10/14/2010

**Product Name:** Rhodium (III) Nitrate Dihydrate  
**CAS Number:** 13465-43-5  
**Chemical Family:** metal nitrate salts  
**Chemical Formula:** Rh(NO<sub>3</sub>)<sub>3</sub>.2H<sub>2</sub>O  
**MSDS Number:** 7004  
**Product Code:** 7004

**Synonyms**

Nitric acid, rhodium(3+) dihydrate

### 2. Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
Nitric Acid	7697-37-2	<	
Rhodium	7440-16-6	<	31.7 - 35.6

### EMERGENCY OVERVIEW

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

**3. Hazards Identification****Primary Routes(s) Of Entry**

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

**Eye Hazards**

Irritating effect.

**Skin Hazards**

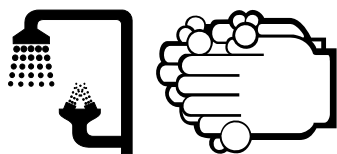
Irritating.

**Ingestion Hazards**

May be harmful if swallowed.

**Inhalation Hazards**

Irritating to respiratory tract and mucous membranes.

**First Aid (Pictograms)****4. First Aid Measures****Eye**

Flush for several minutes with copious amounts of water. Contact a physician immediately.

**Skin**

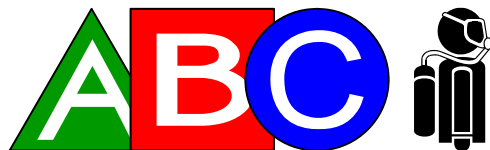
Immediately wash with soap and water and rinse thoroughly. Contact a physician immediately. Remove contaminated clothing and shoes and wash before reuse.

**Ingestion**

Contact a physician immediately.

**Inhalation**

Remove to fresh air immediately. If victim is not breathing provide artificial respiration. Keep victim warm. Contact a physician immediately.

**Fire Fighting (Pictograms)****5. Fire Fighting Measures**

Flash Point: NA °C

Flash Point Method: NA

Autoignition Point: NA °C



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Ru Rh Pd Ag Re Os Ir Pt Au

**5. Fire Fighting Measures - Continued**

**Fire And Explosion Hazards**

Use proper safety equipment. This compound is an oxidizer and it's heat of reaction with reducing agents or combustibles may cause ignition. Nitrogen oxides (NOx) can be released.

**Extinguishing Media**

Use water spray, carbon dioxide, or extinguishing powder. For larger fires use water spray or alcohol resistant foam.

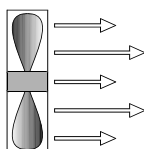
**Fire Fighting Instructions**

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

**6. Accidental Release Measures**

Wear protective equipment. Ensure adequate ventilation. Pick up and place in a proper sealed container and hold for proper waste disposal or reclaim.

**Handling & Storage (Pictograms)**



**7. Handling And Storage**

**Handling And Storage Precautions**

Compound can reduce the ignition temperature of flammable substances. It is an oxidizer and it's heat of reaction with reducing agents or combustibles may cause ignition.

**Handling Precautions**

Ensure good ventilation.

**Storage Precautions**

Store in a tightly sealed container in a cool, dry place away from flammables and reducing agents.

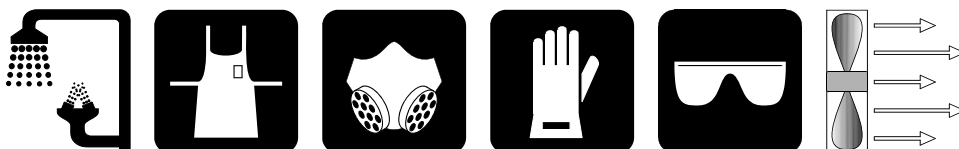
**Work/Hygienic Practices**

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)**



**Rhodium (III) Nitrate Dihydrate****Ru Rh Pd Ag Re Os Ir Pt Au****8. Exposure Controls/Personal Protection****Engineering Controls**

Ventilation: Local Exhaust: Required in handling area  
Mechanical: Desirable to insure concentration of material below  
Other: Yes

Safety shower and eyewash

**Eye/Face Protection**

ANSI approved safety glasses/goggles with side shields.

**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.

**Ingredient(s) - Exposure Limits**

Nitric Acid

ACGIH - TWA - 2 ppm or 5 mg/m<sup>3</sup>, STEL - 4 ppm or 10 mg/m<sup>3</sup>

OSHA -PEL - 2 ppm or 5 mg/m<sup>3</sup>

NIOSH REL - 2 ppm or 5 mg/m<sup>3</sup> or STEL - 4 ppm or 10 mg/m<sup>3</sup>

Rhodium

ACGIH - 1 mg/m<sup>3</sup> for TWA

Insoluble compounds as Rh - TWA 1 mg/m<sup>3</sup>

Soluble compounds as Rh - TWA - 0.01 mg/m<sup>3</sup> TWA

**9. Physical And Chemical Properties****Appearance**

Yellow-brown crystalline solid

**Odor**

ND

**Chemical Type:** Mixture

**Physical State:** Solid

**Melting Point:** ND °C

**Boiling Point:** ND °C

**Molecular Weight:** 288.92 (324.96)

**Vapor Pressure:** ND

**Vapor Density:** ND

**Solubility:** Soluble

**10. Stability And Reactivity**

**Stability:** Stable if stored according to specifications

**Hazardous Polymerization:** Will not occur

**Rhodium (III) Nitrate Dihydrate****Ru Rh Pd Ag Re Os Ir Pt Au****10. Stability And Reactivity - Continued****Conditions To Avoid (Stability)**

Reacts with reducing agents and flammable substances.

**Incompatible Materials**

Reducing agents and easily oxidized materials.

**Hazardous Decomposition Products**

Nitrogen oxides and metal oxide fume.

**Conditions To Avoid (Polymerization)**

Polymerization will not occur.

**11. Toxicological Information****Miscellaneous Toxicological Information**

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**

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**

Nitrates, Inorganic, N.O.S.

**Hazard Class**

5.1

**DOT Identification Number**

1477

**DOT Shipping Label**

Nitrates, Inorganic, N.O.S.

**Packaging Exceptions**

See IATA and DOT regulations

**Packaging Requirements**

III

**Additional Shipping Paper Description**

IATA - Same as DOT CFR 49 Code.

**15. Regulatory Information****U.S. Regulatory Information**

TSCA: This product is TSCA listed.

**Rhodium (III) Nitrate Dihydrate****Ru Rh Pd Ag Re Os Ir Pt Au****15. Regulatory Information - Continued****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.

**European Union (EU) Regulatory Information**

Symbol of Danger: Xn, O

Indication of Danger: Harmful, Oxidizing

R: 8/42

Risk Phrases:

8: Contact with combustible material may cause fire.

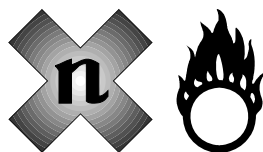
42: May cause sensitization by inhalation.

S: 22/36

Safety Phrases:

22: Do not breathe dust.

36: Wear suitable protective clothing.

**DSCL - Europe (Pictograms)****16. Other Information****NFPA Rating**

Health: 2

Fire: 0

Reactivity: 2

Other: OX

**HMIS Rating**

Health: 2

Fire: 0

Reactivity: 2

Personal Protection: J

**Revision/Preparer Information**

MSDS Preparer: Joseph J. Fittos III

MSDS Preparer Phone Number: 410-398-7200

**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

MATERIAL SAFETY DATA SHEET



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**Disclaimer - Continued**

customer.

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