

Rhodium



MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Manufacturer/Supplier:

ESPI Metals

1050 Benson Way, Ashland, OR 97520

Toll Free (800) 638-2581 * Fax (541) 488-8313

E-Mail: sales@espimetals.com

Product Name: Rhodium

Formula: Rh

CAS Number: 7440-16-6

II. HAZARDOUS INGREDIENTS

Hazardous Component: Rhodium

Percent (%): 0-100

OSHA/PEL: 0.1 mg/m³

ACGIH/TLV: 1 mg/m³

HMIS Rating (Powder or Sponge):

Health: 1

Flammability: 3

Reactivity: 1

III. PHYSICAL DATA

Boiling Point: 3727 °C

Melting Point: 1966 °C

Specific Gravity: 12.4 g/cc

Solubility in H₂O: Insoluble

Appearance and Odor: Black powder or silver colored solid, no odor.

IV. FIRE AND EXPLOSION HAZARDS DATA

Flash Point: N/E

Flammability: Flammable as a powder

Autoignition Temperature: N/E

Explosive Limits: Lower: N/E Upper: N/E

Extinguishing Media: (Powder) Class D or other metal extinguishing agent.

Special Firefighting Procedures: Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

Unusual Fire & Explosion Hazards: Flammable in the form of dust when exposed to heat or flame. May have a violent reaction with chlorine bromine pentafluoride, trifluoride, and OF₂.

V. HEALTH HAZARD INFORMATION

Effects of Exposure:

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

Inhalation of rhodium compounds may cause respiratory irritation and respiratory sensitization

Acute Effects:

Inhalation: May cause irritation of the respiratory system.

Ingestion: May be moderately toxic.

Skin: May cause irritation.

Eye: May cause irritation.

Chronic Effects:

Inhalation: May affect the central nervous system.

Ingestion: None recorded.

Skin: May be a sensitizer.

Eye: None recorded.

Target Organs: May affect the central nervous system.

Medical Conditions Generally Aggravated by Exposure: None known

Carcinogenicity: **NTP:** No **IARC:** No **OSHA:** No

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove to fresh air, keep warm and quiet, give oxygen if breathing is difficult and seek medical attention.

INGESTION: Give 1-2 glasses of milk or water and induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing, brush material off skin, wash with soap and water, seek medical attention if symptoms persist.

EYES: Flush eyes with lukewarm water, including under eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

VI. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: None

Incompatibility (Materials to Avoid): Chlorine bromine pentafluoride, trifluoride and OF₂.

Hazardous Decomposition Products: Metal oxide fume.

Hazardous Polymerization: Will not occur.

VII. SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wear appropriate respiratory and protective equipment specified in Section VIII. For spills of solid pieces: scoop or pick up mechanically. For powder spills: isolate spill area, provide ventilation and extinguish sources of ignition. Scoop up or vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place material into a closed container for reclamation or disposal. Take care not to raise dust. Use non-sparking tools.

Waste Disposal Method: Retain for recovery of rhodium or dispose of in accordance with State, Federal and Local regulations.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection: NIOSH approved dust respirator

Ventilation: Use local exhaust ventilation as necessary to control any air contaminants to within their PELs or TLVs during the use of this product. General exhaust recommended.

Protective Gloves: Rubber gloves

Eye Protection: Safety glasses

Other Protective Clothing or Equipment: Body protection as necessary to prevent skin contact.

IX. SPECIAL PRECAUTIONS

Precautions to Be Taken in Handling and Storage: Wash thoroughly after handling. Keep container closed. Keep finely divided material away from heat, sparks and flame. Store in a cool, dry location away from incompatible materials. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Minimize dust generation and exposure. Use only with adequate ventilation.

Work Practices: Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air. Maintain eyewash capable of sustained flushing, safety drench shower and facilities for washing.

DOT Regulations:

Solid Forms:

Hazard Class:	None
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Powder:

Hazard Class:	4.1
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Identification Number:	UN3089
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Packing Group:	III
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Proper Shipping Name:	Metal powder, flammable, n.o.s. (Rhodium)
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The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. ESPI shall not be held liable for any damage resulting from handling or from contact with the above product.

Issued by: S. Dierks

Revised/Verified: June 2011