

Tungsten Rhenium Alloy

1 PRODUCT AND SUPPLIER IDENTIFICATION

Product Name: Tungsten-Rhenium Alloy – rod, wire, strip, foil

Other: Tungsten-Re

Supplier: Eagle Alloys Corporation
178 West Park Court
Talbott, TN 37877

Telephone: 423-586-8738

Fax: 423-586-7456

Email: sales@eaglealloys.com

24 HOUR EMERGENCY ASSISTANCE: CHEMTREC 800-424-9300

Recommended Uses: Scientific Research

2 HAZARDS IDENTIFICATION

GHS Classification (29 CFR 1910.1200): Not classified as hazardous

GHS Label Elements:

Signal Word: N/A

Hazard Statements: N/A

Precautionary Statements: N/A

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient:	CAS#:	%:	EC#:
Tungsten	7440-33-7	75-98.5	231-143-9
Rhenium	7440-15-5	1.5-25	231-124-5

4 FIRST AID MEASURES

General Measures: Under normal handling and use, exposure to solid forms of this material present few health hazards. Subsequent operations such as grinding, melting or welding may produce potentially hazardous dust or fumes which can be inhaled or come in contact with the skin or eyes.

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

INGESTION: Rinse mouth with water. Do not 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 affected area with soap and water. Seek medical attention if symptoms persist.

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

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation. See section 11 for more information.

Indication of Immediate Medical Attention and Special Treatment: No other relevant information available.

5 FIREFIGHTING MEASURES

Tungsten Rhenium Alloy SAFETY DATA SHEET

Extinguishing Media: Use suitable extinguishing media for surrounding material and type of fire.

Unsuitable Extinguishing Media: No information available.

Specific Hazards Arising from the Material: May emit metal oxide fumes under fire conditions.

Special Protective Equipment and Precautions for Firefighters: Full face, self-contained breathing apparatus and full protective clothing when necessary.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate respiratory and protective equipment specified in section 8. Avoid dust formation. Avoid contact with skin and eyes. Avoid breathing dust or fume.

Methods and Materials for Containment and Cleaning Up: Sweep or scoop up. Place in a closed container for further handling and disposal.

Environmental Precautions: Do not allow to enter drains or to be released to the environment.

7 HANDLING AND STORAGE

Precautions for Safe Handling: Avoid breathing dust or fumes. Provide adequate ventilation if dusts or fumes are created. See section 8 for information on personal protection equipment.

Conditions for Safe Storage: Store in a sealed container. Store in a cool, dry area. See section 10 for more information on incompatible materials.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:	OSHA/PEL:	ACGIH/TLV:
Tungsten	5 mg/m ³	5 mg/m ³
Rhenium	No exposure limit established	No exposure limit established

Engineering Controls: Ensure adequate ventilation to maintain exposures below occupational limits. Whenever possible the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne dust and fume to meet established occupational exposure limits. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Respiratory Protection: If permissible levels are exceeded, use NIOSH approved dust respirator.

Eye Protection: Safety glasses

Skin Protection: Wear impermeable gloves, protective work clothing as necessary.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Wire

Color: Silver gray metallic

Odor: Odorless

Odor Threshold: Not determined

pH: N/A

Melting Point: >3180 °C

Boiling Point: No data

Flash Point: N/A

Evaporation Rate: N/A

Flammability: No data

Upper Flammable Limit: No data

Lower Flammable Limit: No data

Vapor Pressure: No data

Vapor Density: N/A

Relative Density (Specific Gravity): 19.4 - 19.7 g/cc

Tungsten Rhenium Alloy SAFETY DATA SHEET

Solubility in H₂O: Insoluble
Partition Coefficient (n-octanol/water): Not determined
Autoignition Temperature: No data
Decomposition Temperature: No data
Viscosity: N/A

10 STABILITY AND REACTIVITY

Reactivity: No data
Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: No data
Conditions to Avoid: High temperatures in air.
Incompatible Materials: Strong oxidizers.
Hazardous Decomposition Products: Metal oxide fume.

11 TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, skin, eyes. Product as shipped does not present an inhalation hazard; however subsequent operations may create dusts or fumes which could be inhaled.
Symptoms of Exposure: Fines/dusts may irritate skin and eyes.
Acute and Chronic Effects:
Tungsten: No data
Rhenium: No data
Acute Toxicity: No data
Carcinogenicity: No components of this alloy have been identified by NTP or IARC as carcinogenic.
To the best of our knowledge the chemical, physical and toxicological characteristics of the substance are not fully known.

12 ECOLOGICAL INFORMATION

Ecotoxicity: No data
Persistence and Degradability: No data
Bioaccumulative Potential: No data
Mobility in Soil: No data
Other Adverse Effects: No further relevant information available.

13 DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Product: Dispose of in accordance with Federal, State and Local regulations.
Packaging: Dispose of in accordance with Federal, State and Local regulations.

14 TRANSPORT INFORMATION

Shipping Regulations: Not regulated
UN Number: N/A
UN Proper Shipping Name: N/A
Transport Hazard Class: N/A
Packing Group: N/A
Marine Pollutant: No

15 REGULATORY INFORMATION

TSCA Listed: All components are listed.

Tungsten Rhenium Alloy SAFETY DATA SHEET

Regulation (EC) No 1272/2008 (CLP): N/A

Canada WHMIS Classification (CPR, SOR/88-66): N/A

HMIS Ratings: Health: 0 **Flammability:** 0 **Reactivity:** 0

NFPA Ratings: Health: 0 **Flammability:** 0 **Reactivity:** 0

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

16 OTHER INFORMATION

The information contained in this document is based on the state of our knowledge at the time of publication and is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Eagle Alloys Corporation makes no representation, warranty, or guarantee of any kind with respect to the information contained in this document or any use of the product based on this information. Eagle Alloys Corporation shall not be held liable for any damages resulting from handling or from contact with the above product. Users should satisfy themselves that they have all current data relevant to their particular use.

Prepared by: Eagle Alloys Corporation

Revised/Reviewed: November 2015

24 HOUR EMERGENCY ASSISTANCE: CHEMTREC 800-424-9300