

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH), as amended by Regulation (EU) 2020/878

Product Name: Zirconium Tungsten

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product Identifier: Zirconium Tungsten

SECTION 2: Hazards identification



Hazard Statements:

- H335: May cause respiratory irritation due to dust or fume



SECTION 3: Composition/information on ingredients

Mixture of metal alloys in solid wire form. Main constituents

Substance	CAS No.	EC No.	Concentration	Classification (CLP)
Iron	7439-89-6	231-096-4	40-50%	-
Chromium	7440-47-3	231-157-5	10-20%	-
Nickel	7440-02-0	231-111-4	10-20%	Carc. 2, STOT RE 1, Skin Sens. 1
Molybdenum	7439-98-7	231-107-2	1-10%	-
Manganese	7439-96-5	231-105-1	1-10%	-
Silicon	7440-21-3	231-130-8	1-10%	-
Copper	7440-50-8	231-159-6	0-0.5%	-
Carbon	7440-44-0	231-153-3	0-0.5%	-
Phosphorus	7723-14-0	231-768-7	0-0.5%	-
Sulfur	7704-34-9	231-722-6	0-0.5%	-

SECTION 4: First aid measures

Inhalation: Move to fresh air. Seek medical advice if symptoms persist.

Skin contact: Wash thoroughly with soap and water.

Eye contact: Rinse cautiously with water. Remove contact lenses.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention.

SECTION 5: Firefighting measures

Use dry chemical, CO₂ or alcohol-resistant foam. Avoid water jet.

Fumes may contain metal oxides. Firefighters should wear SCBA.

SECTION 6: Accidental release measures

Avoid dust formation. Use mechanical means to collect material. Ensure good ventilation.

SECTION 7: Handling and storage

Ensure adequate ventilation. Avoid inhalation of fumes. Store in a dry place in sealed containers.

SECTION 8: Exposure controls/personal protection

Exposure controls/personal protection

Engineering controls: Use local exhaust ventilation. Monitor fume levels.

Personal protection: Safety goggles, welding helmet, gloves (EN 388), flame-resistant clothing, and suitable RPE.

Exposure limits (EH40/UK WEL, 4th edition, 2020):

- Nickel (inhalable): 0.5 mg/m³ TWA (Sk)
- Chromium: 0.5 mg/m³ TWA
- Manganese (respirable): 0.05 mg/m³ TWA

SECTION 9: Physical and chemical properties

Form: Solid wire. Colour: Brown. Odour: None.

Melting point: ~1440°C. Solubility: Insoluble in water.

SECTION 10: Stability and reactivity

Stable under normal use. Avoid strong acids and oxidisers.

No hazardous polymerisation expected.

SECTION 11: Toxicological information

Nickel may cause allergic skin reactions. Prolonged inhalation may affect lungs.

Not expected to be acutely toxic. Fumes may irritate respiratory tract.

SECTION 12: Ecological information

Not readily biodegradable. Avoid environmental release. Metal dust may be harmful to aquatic organisms.

SECTION 13: Disposal considerations

Dispose of in accordance with local/national regulations. Do not incinerate. Collect metal waste for recycling where possible.

SECTION 14: Transport information

Not classified as hazardous for transport. No special precautions required.

SECTION 15: Regulatory information

Regulatory information

Regulations: Complies with REACH Regulation (EC) No. 1907/2006, as amended by (EU) 2020/878.

Prepared in anticipation of REACH Revision 2025 (Q4 expected implementation).

Complies with UK COSHH Regulations and CLP Regulation (EC) No. 1272/2008.

SECTION 16: Other information

This SDS has been prepared in accordance with Regulation (EU) 2020/878. It is based on the best available knowledge as of issue date.

Substance	CAS No.	EC No.	Concentration	Classification (CLP)
Tungsten	7440-33-7	231-143-9	~98.5%	-
Zirconium Oxide	1314-23-4	215-227-2	1.5-2.0%	-