



MATERIAL SAFETY DATA SHEET (MSDS)

TUNGSTEN COPPER ALLOY (WCu)

SECTION 1: IDENTIFICATION

Product: Tungsten Copper Alloy

CAS #: 7440-33-7 (Tungsten)

Manufacturer: Chinatungsten Online (Xiamen) Manu. & Sales Corp.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family: Refractory metal alloy.

Grade	Cu +/-2%	Density g/cm ³	Tensile Strength		Hardness HB	Electric Con. %IACS,min
			Room Temp	1600 °C		
WCu7	7	17.3~17.8	400~750	50~120	280	26
WCu10	10	16.8~17.3	400~700	60~100	260	27
WCu15	15	16.0~16.5	300~600	/	240	30
WCu20	20	15.1~15.5	/	/	220	34
WCu30	30	13.7~14.2	/	/	175	42
WCu40	40	12.7~13.2	/	/	140	47
WCu50	50	11.7~12.2	/	/	115	55

SECTION 3: HAZARDS IDENTIFICATION

The terms “hazardous” and “hazardous materials” as used within this MSDS should be interpreted as by, and in accordance with, the OSHA Hazard Communication Standard (29CFR1910.1200) including cited appendices, lists, references, etc.

Primary Routes of Entry

Inhalation, ingestion, skin or eye contact (for dusts, mist, powder, and fumes).

Effects of Overexposure

No specific data, testing, or information has been found for the chemical compounds that comprise these products. However, general comments for individual elements are shown below.

Tungsten (W)

Industrially this element does not constitute an important health hazard.



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SECTION 4: FIRST-AID MEASURES

Eye Contact

Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

Skin Contact

If the chemical got onto the clothed portion of the body, please remove the contaminated clothes as quickly as possible to protect your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Warning: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion

Not available.

Other

In the event of wound contamination with nickel, the wound should be promptly and thoroughly cleaned. All contaminated wounds should be thoroughly cleaned.

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A/C: 40303014040001427

EMERGENCY CALL: +86 592 512 9595
DETAILS INFORMATION: www.chiantungsten.com
ISO 9001:2008 CERTIFICATE NO. 00119Q31041R2S/3502
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SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the Product

May be combustible at high temperature.

Auto-Ignition Temperature

Not available.

Flammable Points

Not available.

Flammable Limits

Not available.

Products of Combustion

Some metallic oxides.

Fire Hazards in Presence of Various Substances

Not available.

Explosion Hazards in Presence of Various Substances

Not available.

Risks of Explosion of the Product in Presence of Mechanical Impact

Not available.

Risks of Explosion of the Product in Presence of Static Discharge

Not available.

Fire Fighting Media and Instructions

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards

Material in powder form, capable of creating a dust explosion.

Special Remarks on Explosion Hazards

Not available.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

If material is released or spilled, ventilate the area of the spill. Clean up using methods which avoid the generation of dusts. Such methods include wet mopping or vacuuming (assuring that the vacuum is equipped with the proper filter to prevent airborne dust levels which exceed the PEL or TLV). If airborne dust is generated, use the appropriated NIOSH approved respiratory protection.

SECTION 7: HANDLING & STORAGE

Tungsten copper alloys are, in general, safe materials to handle and use under almost all commonly encountered environments. Special precautions typically only apply in situations where the alloy is present as a fine powder or when operations such as machining create dust or soluble by-products. Maintain good housekeeping procedures to prevent the accumulation of dust and the generation of airborne dust particles. Avoid dust inhalation and direct contact with the dust. Wash hands thoroughly before eating or smoking. Wash exposed skin at the end of the work shift. Periodic medical examinations are recommended for individuals regularly exposed to dust or mists.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Respiratory Protection

Use an appropriate NIOSH approved respirator if airborne dust concentrations exceed the appropriate PEL or TLV. All requirements set forth in 29CFR1910.134 must be met.

Protective Gloves

Protective gloves or barrier creams are recommended when contact with dust or mist is likely. Wash thoroughly prior to applying barrier creams or using protective gloves.

Ventilation

Use local exhaust ventilation which is adequate to limit personal exposure to airborne dust to levels which do not exceed the appropriate PEL or TLV. If such equipment is not available, use respiratory protection as specified above.

Eye Protection

Goggles or safety glasses with side shields are recommended.

Other Equipment

Full body protective clothing is advisable if contact with dust, mist, or fumes are expected. Work clothing should be changed daily if it is suspected that the clothing is contaminated.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Melting point: N/A

Boiling point: N/A

Vapor pressure: N/A at 25° C

Vapor density (air=1): N/A

Evaporation rate: N/A

Solubility in water: Insoluble

Specific gravity (H₂O=1): 11.5 to 18.00

Molecular weight: N/A

% volatile by volume: N/A

Appearance: Gray, tin-white metal, high copper containing alloys will have a copper sheen.

Odor: None

SECTION 10: STABILITY AND REACTIVITY

Incompatibilities

Contact of dust with strong oxidizers may cause fire or explosion. Avoid strong acids.

Extremely fine powders may be pyrophoric under some conditions.

Stability

These products are stable.

Hazardous Decomposition Products

None

Hazardous Polymerization

None

SECTION 11: TOXICOLOGICAL INFORMATION

Tungsten compounds are considered somewhat toxic. However, the element itself does not constitute an important health hazard. Exposure is related primarily to any dust created. The feeding of 2%, 5%, and 10% of diet as tungsten metal over a period of 70 days has shown no marked effect upon the growth of rats, as measured in terms of weight gain. Heavy exposure to the dust or the ingestion of large amounts of soluble compounds produces changes in body weight, behavior, blood cells, choline esterase activity, and sperm in experimental animals.

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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Not available.

BOD₅ and COD

Not available.

Products of Biodegradation

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation

The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation

Not available.

SECTION 13: DISPOSAL CONSIDERATION

This material must be disposed of in accordance with any and all applicable local, state, and federal regulations. Material intended for disposal may be sold for scrap for reclaim. Tungsten scrap, dust, and recovered fume have value.

SECTION 14: TRANSPORT INFORMATION

DOT Classification

CLASS 8: Corrosive solid.

Identification

Metal powder, flammable, n.o.s. (Tungsten powder): UN3089 PG: III

Special Provisions for Transport

Not available.

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SECTION 15: THE SUPPLIER'S INFORMATION

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