



CHEMICAL NAME AND SYNONYMS Tungsten, Copper		TRADE NAMES AND SYNONYMS Sheralloy/Shercut, S1WC, S3WC, S5WC, S10WC, S20WC, S30WC, S15WC	
C.A.S. NO. NIF	T.S.C.A. NO. NIF		CHEMICAL FAMILY Elemental Metal Composite
DEPARTMENT OF TRANSPORTATION	HAZARD CLASSIFICATION NIF		U.N. NO. NIF
	SHIPPING NAME Tungsten, Copper		

II. INGREDIENTS				
GRADE	INGREDIENT	%	TLV	C.A.S. NO.
S1WC	Tungsten Copper	56	5 mg/m ³ (review)	7440-33-7
		44	1 mg/m ³ (review)	7440-50-8
S3WC	Tungsten Copper	68	5 mg/m ³ (review)	7440-33-7
		32	1 mg/m ³ (review)	7440-50-8
S5WC	Tungsten Copper	70	5 mg/m ³ (review)	7440-33-7
		30	1 mg/m ³ (review)	7440-50-8
S10WC	Tungsten Copper	75	5 mg/m ³ (review)	7440-33-7
		25	1 mg/m ³ (review)	7440-50-8
S20WC	Tungsten Copper	78	5 mg/m ³ (review)	7440-33-7
		22	1 mg/m ³ (review)	7440-50-8
S30WC	Tungsten Copper	80	5 mg/m ³ (review)	7440-33-7
		20	1 mg/m ³ (review)	7440-50-8
S15WC	Tungsten Copper	70	5 mg/m ³ (review)	7440-33-7
		30	1 mg/m ³ (review)	7440-50-8

III. PHYSICAL DATA				
MELTING POINT (°C.)	Tungsten Copper	3380° 1085°		
VAPOR PRESSURE (mm Hg.)		N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR-1)		N/A	EVAPORATION RATE (_____)	N/A
SOLUBLE IN WATER		N/A	SPECIFIC GRAVITY H ₂ O = 1	S1WC = 12.60 S3WC = 13.43
APPEARANCE AND ORDOR	Copper Colored No ordor			S5WC = 14.18 S10WC = 14.80 S30WC = 15.60 S15WC = 14.25 S20WC = 15.20

IV. FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (METHOD USED) N/A	FLAMABLE LIMITS	Lel	Uel
		N/A	N/A
EXTINGUISHING MEDIA Type C or type ABC Extinguisher			
SPECIAL FIRE FIGHTING PROCEDURES Use a self contained breathing apparatus with a full face mask in a pressure demand or positive pressure mode.			
UNUSUAL FIRE AND EXPLOSION HAZARDS N/A			

Ref. Registry of Toxic Effects of Chemical Substances, NIOSH, 1985-86; Dangerous Properties of Industrial Materials, 5th Ed., Van Nostrand Reinhold Co., 1979; Occupational Health Guidelines for Chemical Hazards, NIOSH/OSHA, 1981; OSHA Code of Federal Regulations, Labor #29, Revised July 1, 1987.

V. HEALTH HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE:

Tungsten: Low toxicity - nuisance dust. Inhalation - cough.
Ingestion - none reported. Skin - none reported. Health hazards - acute bronchitis.

Copper: Inhalation - cough, chills, general malaise, kidney dysfunction. Ingestion - liver dysfunction.
Eyes and skin - irritant and/or discoloring.
Health hazards: chronic lung, liver or kidney damage. May aggravate or intensify symptoms or pre-existing anemia or pulmonary disease.

CARCINOGENICITY:

	NTP	IARC	OSHA
Tungsten	No	No	No
Copper	No	No	No

EMERGENCY AND FIRST AID PROCEDURES:

Remove victim to fresh air. Flush skin and eyes with water. For inhalation or ingestion, seek immediate medical assistance.

VI. REACTIVITY DATA

STABILITY: Stable **HAZARDOUS POLYMERIZATION:** Will not occur

INCOMPATIBILITY:

HAZARDOUS DECOMPOSITION PRODUCTS: Melting may generate harmful conditions to avoid.

CONDITIONS TO AVOID:

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Scoop up large quantities. Use sweeping compound to remove the rest. Avoid creating airborne particles.

WASTE DISPOSAL METHOD: Tungsten - Copper can be recycled

VIII. SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION: NIOSH approved cartridge respirator.

VENTILATION: Ventilate operations when producing dust or fumes.

PROTECTIVE GLOVES: Recommend hand protection when handling metals for prevention of cuts.

EYE PROTECTION: Safety glasses or goggles should be used.

IX. SPECIAL PRECAUTIONS

STORING AND HANDLING: Store in a dry cool place.

OTHER PRECAUTIONS: Avoid generating dust or fumes.

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