

# MATERIAL SAFETY DATA SHEET

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## SECTION I

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**CHEMICAL NAME AND SYNONYMS:**  
Tungsten-Copper (WCu)

**TRADENAME AND SYNONYMS**  
Sparkaloy CuW

**CHEMICAL FAMILY:**  
Binary Metallurgical Composite

**FORMULA:**  
Grade 50-235

## SECTION II – HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)	C.A.S. NO.
Tungsten	70	5mg/m <sup>3</sup>	7440-33-7
Copper	30	1mg/m <sup>3</sup>	7440-50-8

## SECTION III – PHYSICAL DATA

Melting Point (°C) Tungsten	3380 <sup>0</sup>	Specific Gravity H <sub>2</sub> O = 1)	14.25
Copper	1085 <sup>0</sup>		
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		
Appearance and Odor	Copper colored		

## SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flash Point (method used)	N/A	Flammable 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.

**SECTION V – HEALTH HAZARD DATA**

Threshold Limit Value

Effects of Overexposure: **Copper and/or Silver:** Inhalation –cough, chills, general malaise, kidney disfunction. Ingestion liver disfunction. Eyes and skin – irritant and / or discoloring.

**Health Hazards:** Chronic lung, liver or kidney damage.

**Tungsten:** Low toxicity – nuisance dust. Inhalation – cough, Ingestion – none reported. Skin – none reported.

Emergency Aid First Aid Procedures: Remove victim to fresh air. Flush skin and eyes with water. For inhalation ingestion seek immediate medical assistance.

**SECTION VI-REACTIVITY DATA**

STABILITY	Unstable		Conditions to avoid
	Stable	X	

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

Melting may generate harmful fumes.

HAZARDOUS POLYMERIZATION	May occur		Conditions to avoid
	Will not occur	X	

**SECTION VII – SPILL OR LEAK PROCEDURES**

Steps to be taken in case material is released or spilled:

Scoop up large quantities. Remove the remaining material with a broom and shovel using a sweeping compound.

Avoid creating dust.

Waste Disposal Method

Tungsten-Copper, Tungsten-Silver, Tungsten Carbide-Copper and

Tungsten Carbide-Silver can be recycled.

**SECTION VIII-SPECIAL PROTECTION INFORMATION**

Respiratory Protection (Specify type)

NIOSH approved cartridge respirator.

Ventilation	Local exhaust recommended when producing fumes or dust	Special
	Mechanical (general)	Other

Protective Gloves recommended to prevent cuts and slivers from sharp edges.

Eye Protection: Glasses or goggles should be used with fume or dust conditions.

OTHER PROTECTIVE EQUIPMENT

**SECTION IX – SPECIAL PRECAUTIONS**

Precautions to be taken in handling and storing

Store in cool dry place. Avoid generating fumes or dust.

OTHER PRECAUTIONS