



4701 Massachusetts Avenue  
 Indianapolis, IN 46218  
 800-624-1895 (317) 549-4290  
 Fax: (317) 549-4295

# MATERIAL SAFETY DATA SHEET

ISSUED DATE 11-19-85 REVISED DATE 9-30-09

## I. IDENTIFICATION

MANUFACTURER'S NAME		Mi-Tech Metals, Inc.		EMERGENCY TELEPHONE NO.		(317) 549-4290	
ADDRESS		4701 Massachusetts Avenue - Indianapolis, IN 46218					
CHEMICAL NAME AND SYNONYMS		Tungsten Carbide, Copper		TRADE NAME AND SYNONYMS		TC56	
C.A.S. NO.		NIF		T.S.C.A. NO.		NIF	
				FORMULA		WC-Cu	
DEPARTMENT OF TRANSPORTATION		HAZARD CLASSIFICATION		NIF		U.N. NO.	
		SHIPPING NAME		TC56 Tungsten Carbide -Copper			

## II. INGREDIENTS

MATERIAL	%	TLV (Units)	C.A.S. NO.	NFPA RATING  4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT
Tungsten Carbide	56	5 MG/M <sup>3</sup>	11130-73-7	
Copper	44	1.0 MG/M <sup>3</sup>	7440-50-8	

REPORT ALL INGREDIENTS ≥3%; IF HAZARDOUS, REPORT ≥1%; SPECIAL HAZARDOUS SUBSTAND ≥0.01%

## III. PHYSICAL DATA

BOILING POINT, 760mm Hg 101.325 kPa	WC- 6000°C Cu - 2567°C	FREEZING POINT	N/A
SPECIFIC GRAVITY (H <sub>2</sub> O=1)	11.67 g/cc	VAPOR PRESSURE AT 20°C	N/A
VAPOR DENSITY (AIR=1)	N/A	SOLUBILITY IN WATER, % BY WT.	Insoluble
APPEARANCE AND ODOR	Metallic Copper Colored - No odor		

## IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	N/A	FLAMMABLE LIMITS LEL	NIF	UEL	NIF
EXTINGUISHING MEDIA	Class D				
SPECIAL FIRE FIGHTING PROCEDURES					
UNUSUAL FIRE AND EXPLOSION HAZARDS	Gives off CO and/or CO <sub>2</sub> when burning in Oxygen containing atmosphere. Will oxidize above 1300°F.				

## V. REACTIVITY DATA

STABILITY			
UNSTABLE	STABLE	CONDITIONS TO AVOID	Strong acids
	X		
INCOMPATIBILITY			

(Materials to Avoid)	
HAZARDOUS DECOMPOSITION PRODUCTS	CO and/or CO <sub>2</sub> - Nitrogen Oxide

## VI. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	OSHA Tungsten Carbide 5 MG/M <sup>3</sup> Copper 1.0 MG/M <sup>3</sup>	ACGIH Tungsten Carbide 5 MG/M <sup>3</sup> Copper 1.0 MG/M <sup>3</sup>	
ROUTES OF EXPOSURE (Check Those Which Apply)	EYE CONTACT No	INHALATION No	SKIN ABSORPTION No
	SKIN CONTACT No	INGESTION No	
SIGNS AND SYMPTOMS OF OVEREXPOSURE	NIF (No information found)		
EFFECTS OF OVEREXPOSURE			
ACCUTE	NIF		
CHRONIC	NIF		
HAS IOSHA FOUND THIS MATERIAL TO BE A POTENTIAL CARCINOGEN?	YES	NO	X
EMERGENCY FIRST AID PROCEDURES			

## VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELATED OR SPILLED	
WASTE DISPOSAL METHOD	Re-cycle all scrap and machine turnings.
	DISPOSER MUCH COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS.

## VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type)	Use NIOSHA/MSHA approved type respirator for dusting conditions		
VENTILATION	LOCAL EXHAUST	Recommended	SPECIAL NIF
	MECHANICAL (General)	NIF	OTHER NIF
PROTECTIVE GLOVES	None	EYE PROTECTION	Use safety eyewear
OTHER PROTECTIVE EQUIPMENT	None		

## IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Store in cool, dry, well ventilated area. Separate from acids and alkalis.
OTHER PRECAUTIONS	

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