



HOGEN INDUSTRIES, INC.

OF INDIANA

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Indianapolis, IN 46218

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MATERIAL SAFETY DATA SHEET

ISSUED DATE 10-14-09

REVISED DATE 10-14-09

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, Copper		TRADE NAME AND SYNONYMS		CW 78	
C.A.S. NO.	NIF	T.S.C.A. NO.	NIF	FORMULA	W-Cu		
DEPARTMENT OF TRANSPORTATION	HAZARD CLASSIFICATION	NIF		U.N. NO.	NIF		
	SHIPPING NAME	CW78 Copper Tungsten					

II. INGREDIENTS

MATERIAL	%	TLV (Units)	C.A.S. NO.	NFPA RATING 4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT
Tungsten	78	5 MG/M ³	7440-33-7	
Copper	22	1 MG/M ³	7440-50-8	

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

III. PHYSICAL DATA

BOILING POINT, 760mm Hg 101.325 kPa	Tungsten - 5660°C Copper - 2567°C	FREEZING POINT	N/A
SPECIFIC GRAVITY (H ₂ O=1)	15.35 g/cc	VAPOR PRESSURE AT 20°C	N/A
VAPOR DENSITY (AIR=1)	N/A	SOLUBILITY IN WATER, % BY WT.	N/A
APPEARANCE AND ODOR	Copper Colored - No odor		

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	NIF	FLAMMABLE LIMITS LEL	NIF	UEL	NIF
EXTINGUISHING MEDIA	NIF (No Information Found)				
SPECIAL FIRE FIGHTING PROCEDURES	NIF				
UNUSUAL FIRE AND EXPLOSION HAZARDS	Will oxidize above 1300°F				

V. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID	
UNSTABLE	STABLE	Nitric Acid will cause oxidation of the Copper and form Nitrogen Oxide. Avoid other strong acids.	
	X		
INCOMPATIBILITY (Materials to Avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			

VI. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	OSHA Tungsten 5 MG/M ³ Copper 1 MG/M ³	ACGIH Tungsten 5 MG/M ³ Copper 1 MG/M ³	
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	

DISCLAIMER OF LIABILITY

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Page 2 of 2