



HOGEN INDUSTRIES, INC.
OF INDIANA
4655 Massachusetts Avenue
Indianapolis, IN 46218
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MATERIAL SAFETY DATA SHEET

ISSUED DATE 12-02-85 REVISED DATE 9-30-09

I. IDENTIFICATION

MANUFACTURER'S NAME		Hogen Industries, Inc.		EMERGENCY TELEPHONE NO.		(317) 591-5070	
ADDRESS		4655 Massachusetts Avenue - Indianapolis, IN 46218					
CHEMICAL NAME AND SYNONYMS		Tungsten, Carbide, Copper		TRADE NAME AND SYNONYMS		H5TC	
C.A.S. NO.	NIF	T.S.C.A. NO.	NIF	FORMULA	WC-Cu		
DEPARTMENT OF TRANSPORTATION	HAZARD CLASSIFICATION	NIF		U.N. NO.	NIF		
	SHIPPING NAME	H5TC 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	50	5 MG/M ³	11130-73-7	
Copper	50	1.0 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	WC- 6000°C Cu - 2567°C	FREEZING POINT	N/A
SPECIFIC GRAVITY (H ₂ O=1)	11.27 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 ₂ 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 ₂ - Nitrogen Oxide	

VI. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	OSHA Tungsten Carbide 5 MG/M ³ Copper 1.0 MG/M ³	ACGIH Tungsten Carbide 5 MG/M ³ Copper 1.0 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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Form # 137

Rev. B
03/01/06
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