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MATERIAL SAFETY DATA SHEET

Company Name: Address: City / State / Zip: US-CHEMTREC Phone(I): US-CHEMTREC Phone(II): CAN-CANUTEC Phone: Vendor Update: Date Prepared: MSDS Number: C.R.LAURENCE 2503 E VERNON AVE LOS ANGELES / CA / 90058 (800)424–9300 (703)527–3887 (613)996–6666 12/12/2009 12/12/2009 99590 ; CS10S ; CS18 ; CS26A ; CS618S ; CS6S ; CS8S ; DB18 ;

I. CHEMICAL PRODUCT IDENTIFICATION

Product Name: HMIS Ratings: NFPA Ratings: COUNTERSINKS

II. COMPOSITION, INFORMATION ON INGREDIENTS								
Chemical Ingredients	C.A.S. Number	% By Weight	ACGIH TLV TWA/STEL	OSHA PEL TWA/STEL	Other TWA/STEL	LD50	LC50	
CHROMIUM	4770-47-3	4.5	.5 MG/M ³ (DUST); .05 MG/M ³ (FUME)	.5 MG/M ³ (DUST); .1 MG/M ^{3*} (FUME)				
Notes								
VANADIUM	1314-62-1	4.5	.05 MG/M ³ (DUST)	.5 MG/M ³ (DUST)*				
Notes					1	I		
MOLYBDENUM	7439–98–7	10.5	10 MG/M ³	15 MG/M ³				
Notes								
IRON	1309-37-1	REM.	5 MG/M ³	10 MG/M ³				
Notes		!		4	-!	!		
NICKEL	7440-02-0	0.5	1 MG/M ³	1 MG/M ³				
Notes					- 1	I		
COBALT	7440-48-4	9.0	.02 MG/M ³	.1 MG/M ³				
Notes	PREMIUM COBALT TOOLS ONLY							
MANGANESE	7439–96–5	0.5	.2 MG/M ³ *	5 MG/M ^{3*}				
Notes		I		1				
SILICON	7440-21-2	1	10 MG/M ³ (DUST)					
Notes		<u> </u>		-		I	1	

III. HAZARDS IDENTIFICATION PRIMARY ROUTE OF ENTRY

THIS PRODUCT IS NOT CONSIDERED, IN THE FORM THAT IT IS SOLD, TO

CONSTITUTE A HEALTH HAZARD. ABRADING, MELTING, WELDING, CUTTING

Medical Conditions Aggravated by Exposure:

TUNGSTEN

Notes Other:

Other:

7440-33-7

*MAXIMUM LIMIT

12.5

5 MG/M³

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OR ANY OTHER FORM OF PROCESSING WHICH CAUSES A RELEASE OF DUST OR FUME MAY CAUSE SOME INGREDIENTS TO CHANGED TO A FORM WHICH COULD AFFECT EXPOSED WORKERS.

	IV. FIRST AID MEASURES				
Eyes:	FLUSH WITH WATER, SEE PHYSICIAN.				
Skin:	WASH WITH SOAP AND WATER.				
Ingestion:	SEEK MEDICAL ATTENTION IF LARGE QUANTITY HAS BEEN INGESTED.				
Inhalation:	REMOVE TO FRESH AIR, CONSULT PHYSICIAN IF SYMPTOMS PERSIST.				
Other:	CHROMIUM HAS A HIGH PULMONARY TOXICITY, IT IS AN EXPERIMENTAL CAUSE OF NEOPLASM(S) AND IS A CARCINOGEN. VANADIUM MAY ACT AS A IRRITANT TO THE CONJUNCTIVAE AND RESPIRATORY TRACT. MOLYBDENUM CAN BE TOXIC VIA INTRAPERITONEAL AND SUBCUTANEOUS ROUTES. AVOID INHALTION OF LARGE AMOUNTS OF DUST OR FUME. IRON DUST CAN CAUSE CONJUNCTIVITS, CHOROIDITIS, RENTINITIS AND SIDEROSIS OF TISSUES. IRON OXIDE FUME FROM WELDING CAN CAUSE CHRONIC BRONCHITIS (WITH CONTINUED EXPOSURE). NICKEL IS A POTENTIAL CARCINOGEN AND CASUE NEOPLASM(S). COBALT OVEREXPOSURE CAN CAUSE CHRONIC INTERSTITIAL PNEUMONITIS. PROLONGED EXPOSURE CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE. MANGANESE HAS A HIGH TOXICITY VIA INTRAPERITONEAL AND INHALATION ROUTES. PROLONGED EXPOSURE CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE. SILICON PARTICULATE MATTER SHOULD NOT BE INHALED. PROLONGED EXPOSURE CAN CAUSE SILICOSIS. TUNGSTEN IS GENERALLY NOT REGARDED AS AN INDUSTRIAL TOXIN, HOWEVER, NO DUST WHEN INHALED IN SUFFICIENT QUANTITY IS COMPLETELY INERT.				
Flach Daint:	V. FIRE FIGHTING MEASURES				
Flash Point:NONEUnusual Fire or Explosion NONEHazards:					
	VI. ACCIDENTAL RELEASE MEASURES				
Containment/Cleanup:	VI. ACCIDENTAL RELEASE MEASURES N/A				
Containment/Cleanup:					
Containment/Cleanup: Other:	N/A				
· Other:	N/A VII. HANDLING AND STORAGE USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUST AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM. CUTTING TOOLS MAY SHATTER IN USE, WEAR EYE PROTECTION AD USE MACHINE SAFETY SHIELDS. VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION				
	N/A VII. HANDLING AND STORAGE USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUST AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM. CUTTING TOOLS MAY SHATTER IN USE, WEAR EYE PROTECTION AD USE MACHINE SAFETY SHIELDS.				
· Other:	N/A VII. HANDLING AND STORAGE USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUST AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM. CUTTING TOOLS MAY SHATTER IN USE, WEAR EYE PROTECTION AD USE MACHINE SAFETY SHIELDS. VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION WEAR SAFETY GLASSES AND BE SURE THAT MACHINE SAFETY SHIELDS ARE				

Engineering:	VENTILATION REQUIREMENTS: GENERAL – RECOMMENDED, LOCAL – AS REQUIRED.				
Other:	USE PROTECTIVE CLOTHING OR OTHER EQUIPMENT AS REQUIRED. USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUST AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM. CUTTING TOLLS MAY SHUTTLE IN USE, WEAR EYE PROTECTION AND USE MACHINE SAFETY SHIELDS.				
	IX. PHYSICAL AND CHEMICAL PROPERTIES				
Appearance:	VARIOUS SHAPES				
Boiling Point:	>5000°F				
Solubility in Water:	INSOLUBLE				
Specific Gravity:	7.8–8.2 (60°F)				
Vapor Pressure:	N/A				
Vapor Density:	N/A				
Volatile Content:	N/A				
Other:	MELTING POINT: 2500°F APPROX.				
	X. STABILITY AND REACTIVITY				
Stability:	CHEMICALLY STABLE				
Hazardous Decomposition METALLIC OXIDES. Products:					
Incompatible Products:	REACTS WITH STRONG ACIDS TO GENERATE HYDROGEN GAS.				
	XI. TOXICOLOGICAL INFORMATION				
	XII. ECOLOGICAL INFORMATION				
Ecotoxicity:					
	XIII. DISPOSAL CONSIDERATIONS				
Disposal Method:	SOLIDS: SALE AS SCRAP. PARTICULATES: FOLLOW FEDERAL, STATE AND LOCAL DISPOSAL REGULATIONS.				
	XIV. TRANSPORT INFORMATION				
XV. REGULATORY INFORMATION					
EPA Sara Title III ChemicalSARA III SEC. 313 CHEMICAL: CHROMIUM, VANADIUM, NICKEL, COBALT,Listings:MANGANESE. MAXIMUM LIMIT: CHROMIUM, VANADIUM MANGANESE.					
Supplemental State Compliance Information:					
	XVI. OTHER INFORMATION				

WARRANTY INFORMATION

THIS INFORMATION IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND

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SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.