

# MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME:

## I. PRODUCT IDENTIFICATION



**LATROBE STEEL COMPANY**  
 SUBSIDIARY OF THE TIMKEN COMPANY  
 LATROBE, PENNSYLVANIA 15650  
 AREA CODE 412 - 537-7711

TRADE NAME: HS-100 (M-42)

GRADE SPECIFICATION DATE: 11/15/85

- TRI TOOL INC
- 3806 SECURITY PARK DR
- RANCHO CORDOVA CA 95670

## II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	CAS NO.	OSHA PEL (Mg/M <sup>3</sup> )	ACGIH TLV (Mg/M <sup>3</sup> )
COBALT	7440-48-4	0.1	0.1
CHROMIUM	7440-47-3	1.0	.50
IRON	1309-37-1	10	5
MOLYBDENUM	7439-98-7	15	10
VANADIUM	1314-62-1	(DUST) .5*	.05
		(FUME) .1*	.05

### \* CEILING LIMITS

## III. PHYSICAL DATA

BOILING POINT:	≥ 5000°F	MELTING POINT:	Approximately 2500°F
SPECIFIC GRAVITY (H <sub>2</sub> O=1):	Approx. 7.8-8.2 (60°F)	VAPOR PRESSURE:	N/A
VAPOR DENSITY (AIR=1):	N/A	SOLUBILITY IN H <sub>2</sub> O:	Insoluble
% VOLATILES BY VOLUME:	N/A	EVAPORATION (BUTYL ACETATE=1):	N/A
APPEARANCE AND ODOR:	Various Shapes, Solid Odorless Metal		

## IV. FIRE AND EXPLOSION DATA

FLASH POINT: None FIRE POINT: None

## V. HEALTH HAZARD INFORMATION

WE DO NOT CONSIDER THIS PRODUCT IN THE FORM IT IS SOLD TO CONSTITUTE A PHYSICAL HAZARD OR A HEALTH HAZARD. SUBSEQUENT OPERATIONS SUCH AS ABRADING, MELTING, WELDING, CUTTING OR PROCESSING IN ANY OTHER FASHION THAT CAUSES A RELEASE OF DUST OR FUME MAY CAUSE SOME OF THE INGREDIENTS TO CHANGE TO A FORM WHICH COULD AFFECT EXPOSED WORKERS.

PRIMARY ROUTES OF ENTRY:	Inhalation	EMERGENCY FIRST AID:	Remove to fresh air, if condition continues - consult physician
	Eye Contact		Flush well with running water to remove particulate. Get medical attention.
	Skin Contact		Brush off excess dust. Wash area well with soap and water.
	Ingestion		Seek medical help if large quantities of material have been ingested.

**BORON** is not generally regarded as an industrial poison, however, no dust when inhaled in sufficient amounts is completely inert.

**COBALT** over exposure can cause chronic interstitial pneumonitis. Wheezing may be considered evidence of hypersensitivity to cobalt.

**CHROMIUM** has a high pulmonary toxicity, is an experimental cause of neoplasm(s), and is a carcinogen.

**COPPER** may cause metal fume fever from breathing excessive amounts of copper dust or fumes. Health effects consist of irritation of the upper respiratory tract, metallic or sweet taste, nausea, metal fume fever and, in some instances, discoloration of skin and hair.

**IRON** – Iron dust can cause conjunctivitis, choroiditis, retinitis, and siderosis of tissues. Iron oxide fume is generated in welding, and continued exposure to concentrations above 30 mg/M<sup>3</sup> can cause chronic bronchitis.

**MANGANESE** has a high toxicity via the intraperitoneal and inhalation routes; however, prolonged exposure can cause central nervous system damage.

**MOLYBDENUM** can be toxic via intraperitoneal and subcutaneous routes. Care should be taken to avoid inhalation of large amounts of dust or fume. Is generally considered to exhibit a low order of toxicity.

**NICKEL** is a potential carcinogen and can cause neoplasm(s) via inhalation, subcutaneous, implantation, intraperitoneal, and parental mode of exposure routes.

**VANADIUM** may act as an irritant to the conjunctivae and respiratory tract.

**TANTALUM** is not generally regarded as an industrial poison, however, no dust when inhaled in sufficient amounts is completely inert.

**TITANIUM** is considered a physiologically inert dust, however, high concentration of oxides can cause mechanical irritation of eyes, nose and throat.

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## VI. REACTIVITY DATA

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STABILITY:	Chemically Stable
INCOMPATIBILITY:	Reacts with Strong Acids to Generate Hydrogen Gas
HAZARDOUS DECOMPOSITION PRODUCTS:	Metallic Oxides

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## VII. SPILL OR LEAK PROCEDURES

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STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL:	N/A
WASTE DISPOSAL METHOD:	Solids – Sale as Scrap Dust, etc. – Follow Federal, State and Local Regulations Regarding Disposal

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## VIII. SPECIAL PROTECTION INFORMATION

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VENTILATION REQUIREMENTS:	General – Recommended. Local – As Required.
PERSONAL PROTECTIVE EQUIPMENT:	
Respiratory Protection:	If fumes, misting or dust condition occurs and TLV as indicated in Section II is exceeded, provide NIOSH approved respirators.
Eye Protection:	Recommended.
Gloves:	As required.
Other Clothing or Equipment:	As required.

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## IX. SPECIAL PRECAUTIONS

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USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUSTS AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM.

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