

TALBOT HOLDINGS LTD.**MATERIAL SAFETY DATA SHEET**

BRUBAKER FASTCUT MINNESOTA TWIST NEW ENGLAND TAP WELDON WERKO

Manufacturer's Name**I – Product Identification**

Trade Name – High Speed Tool Steels - Various
 Specification Date: 11/85
 Revision Date: 1/1/01

II – Hazardous Ingredients

Material or Component	Weight % Max.	CAS NO.	OSHA PEL	ACGIH TLV
Chromium	4.5x	7440-47-3 (Dust)	.5 mg/m3	.5 mg/m3
Vanadium	4.5x	1314-62-1 (Dust)	.5 mg/m3*	.05 mg/m3
		7440-47-3 (Fume)	.1 mg/m3*	.05 mg/m3
Molybdenum	10.5	7439-98-7	15.0 mg/m3	10.0 mg/m3
Iron	Rem.	1309-37-1	10.0 mg/m3	5.0 mg/m3
Nickel	0.5x	7440-02-0	1.0 mg/m3	1.0 mg/m3
Cobalt	**9.0x	7440-48-4	.1 mg/m3	.02 mg/m3
Manganese	0.5x	7439-96-5	5.0 mg/m3*	.2 mg/m3*
Silicon	1.00	7440-21-2 (Dust)		10.0 mg/m3
Tungsten	12.5	7440-33-7		5.0 mg/m3

* Maximum Limit ** Premium Cobalt Tools Only x=SARA III Sec. 313 Chemical

III – Physical Data

Boiling Point: >5000 deg F

Specific Gravity: 7.8-8.2 (60 deg F)

Vapor Density: N/A

Percent Volatile by Volume: N/A

Appearance and Odor: Various Shapes, Odorless Metal

Melting Point: 2500 deg F Approximately

Vapor Pressure (mm Hg): N/A

Solubility in Water: Insoluble

Evaporation Rate: N/A

IV – Fire and Explosion Hazard Data

Flash Point: None

Fire Point: None

V – Health Hazard Data

We do not consider this product, in the form that it is sold, to constitute a health hazard. Abrading, melting, welding, cutting or any other form of processing which causes a release of dust or fume may cause some ingredients to change to a form which could affect exposed workers.

Primary Routes of Entry	Emergency First Aid
Inhalation	Remove to fresh air, consult physician if symptoms persist.
Eye Contact	Flush with water, see physician.
Skin Contact	Wash with soap and water.
Ingestion	Seek medical attention if large quantity has been ingested.
CHROMIUM	has a high pulmonary toxicity, it is an experimental cause of neoplasm(s) and is a carcinogen
VANADIUM	may act as an irritant to the conjunctivae and respiratory tract.
MOLYBDENUM	can be toxic via intraperitoneal and subcutaneous routes. Avoid inhalation of large amounts of dust or fume.
IRON	dust can cause conjunctivitis, choroiditis, retinitis and siderosis of tissues, Iron oxide fume from welding can cause chronic bronchitis (with continued exposure).
NICKEL	is a potential carcinogen and cause 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.

VI – Reactivity Data

Stability: Chemically Stable
Incompatibility: Reacts with strong acids to generate hydrogen gas
Hazardous Decomposition Products: Metallic Oxides

VII – Spill or Leak Procedures

Steps to be Taken in Case Of Spill: N/A
Waste Disposal Method: Solids – Sale as Scrap
Particulates – Follow Federal, State and Local disposal regulations.

VIII – Special Protection Information

Ventilation Requirements: General-Recommended

Local – As Required

Personal Protection Equipment:

Respiratory:

If dust or fumes exceed TLV as indicated in Section II of this MSDS, provide NIOSH approved respirators.

Eye:

Wear safety glasses and be sure that machine safety shields are in place before machining.

Hands:

Cutting tools are sharp, handle carefully and wear gloves when necessary.

Other:

Use protective clothing or other equipment as required.

IX – Special Precautions

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 and use machine safety shields.

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