NORSEMAN / CTD
DRILL & TOOL

355 State Street
St. Paul, Minnesota 55107
Phone: 1-800-328-4655
Fax: 651-227-1793

Safety Data Sheet

Revision Date: 8/12/15

SECTION 1 – Identification

1.1 Product Identifier

HIGH SPEED STEEL DRILL BITS, TAPS, STEP TOOLS, REAMERS, COMBINED DRILL & COUNTERSINK, COMBINED DRILL & TAP

GRADE NAME & TYPICAL CHEMISTRY (% Weight)

Grade	C	Si	Mn	Cr	W	Mo	V	Co	Fe
M-1	0.83	0.35	0.30	3.80	1.75	8.50	1.15		Balance
M-2	0.86	0.30	0.30	4.10	6.35	5.00	1.90		Balance
M-7	1.00	0.40	0.30	3.80	1.75	8.50	1.90		Balance
M-42	1.07	0.30	0.30	3.80	1.50	9.50	1.15	8.00	Balance
M-50	0.82	0.45	0.30	4.10		4.20	1.00		Balance

1.2 Recommended use and Restrictions on use

Rotary cutting tool

1.3 Supplier's details

MANUFACTURER'S NAME: Viking Drill & Tool, Inc.
ADDRESS: 355 State St., St. Paul, MN. 55107
TELEPHONE #: 651-227-8911

1.4 Emergency telephone number

651-268-5111

SECTION 2 – Hazard Identification

2.1 Hazard Classification

- This product is considered to be an article, and should not present a health hazard during normal use.

2.2 Label Elements

- Signal Word: n/a
- Symbols: n/a
- Pictograms: n/a

2.3 Hazards not otherwise classified

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 grinding, melting, welding, cutting or processing in any other fashion may produce potentially hazardous dust or fumes which can be inhaled, swallowed or come in contact with the skin or eyes.

SECTION 3 – Composition/Information on Ingredients

Threshold limit values (TLV) for constituent elements

CONSTITUENT ELEMENT		CAS NO.	OSHA PEL (mg/m3)		ACGIH TLV (mg/m3)
Aluminum	Al	7429-90-5			10.00
Boron	B	1303-86-2	15.00		10.00
Carbon	C	1333-86-4	3.50		0.50
Chromium	Cr	7440-47-3	1.00		0.50
Cobalt	Co	7440-48-4	0.10		0.05
Copper	Cu	7440-50-8	0.10		0.20
Iron	Fe	1309-37-1	10.00		5.00
Manganese	Mn	7439-96-5	5.00 *	(Dust)	5.00 *
Molybdenum	Mo	7439-98-7	15.00		10.00

Nickel	Ni	7440-02-0	1.00		1.00
Silicon	Si	7440-21-3	N/A		5.00
Titanium	Ti	134630-67-7	15.00		5.00
Tungsten	W	7440-33-7		(Ins. Comp.)	5.00
Vanadium	V	1314-62-1	0.50 *	(Dust)	0.05
			0.10 *	(Fume)	0.05

*Ceiling Limits. No threshold limit values (TLV's) exist for specialty or high speed steels. Above TLV's are applicable to the constituent elements.

SECTION 4 – First Aid Measures

Description of first aid measures

PRIMARY ROUTES OF ENTRY:	EMERGENCY FIRST AID:
Inhalation	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 with soap and water.
Ingestion	Seek medical help if large quantities of material have been ingested.

SECTION 5 – Fire-fighting Measures

FLASH POINT: NONE

FIRE POINT: NONE

SECTION 6 – Accidental Release Measures

STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL: N/A

SECTION 7 – Handling and Storage

Sharp edges could cut. Handle with care. No special care for storage.

SECTION 8 – Exposure Controls/Personal Protection

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.

Recommended Gloves: As Required

Other Clothing or Equipment: As Required

SECTION 9 – Physical and Chemical Properties

Boiling Point	> 5000° F	Melting Point	Approx 2500° F
Specific Gravity (H_2O=1)	Approx. 7.8 - 8.2 @ 60° F	Vapor Pressure	N/A
Vapor Density (Air=1)	N/A	Solubility in H_2O	Insoluble
% Volatiles by Volume	N/A	Evaporation (Butyl Acetate=1)	N/A
Appearance and Odor	An odorless metal in various shapes and sizes		

SECTION 10 – Stability and Reactivity

STABILITY: Chemically Stable

INCOMPATIBILITY: Reacts with Strong Acids to Generate Hydrogen Gas

HAZARDOUS DECOMPOSITION PRODUCTS: Metallic Oxides

SECTION 11 – Toxicological Information

Contact the address listed on the first page of the Safety Data Sheet for toxicological information on the material and its components

SECTION 12 – Ecological Information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Toxic for fish
· **Additional ecological information:**
· **General notes:**
We do not consider this product in the form it is sold to constitute an ecological hazard. Subsequent operations such as grinding, melting, welding, cutting or processing in any other fashion may produce potentially hazardous dust which can be hazardous for water. Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Results of PBT and vPvB assessment
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

SECTION 13 – Disposal Considerations

WASTE DISPOSAL METHOD: Solids - Sale as Scrap, Dust, Etc. - Follow Federal, State and Local Regulations

SECTION 14 – Transport Information

· **UN-Number: DOT, ADN, IMDG, IATA**	Not regulated
· **UN proper shipping name: DOT, ADN, IMDG, IATA**	Not regulated
· **Transport hazard class(es): DOT, ADN, IMDG, IATA Class**	Not regulated
· **Packing group: DOT, IMDG, IATA**	Not regulated
· **Environmental hazards:** · **Marine pollutant:**	Not applicable
· **Special precautions for user**	Not applicable
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable
· **UN "Model Regulation":**	Not applicable

SECTION 15 – Regulatory Information

· **Section 355 (extremely hazardous substances):** not applicable
· **Section 313 (Specific toxic chemical listings):** not applicable
· **TSCA (Toxic Substances Control Act):** All ingredients are listed.
· **Proposition 65: not applicable**
· **EPA (Environmental Protection Agency):** not applicable
· **TLV (Threshold Limit Value established by ACGIH):** not applicable
· **NIOSH-Ca (National Institute for Occupational Safety and Health):** not applicable

SECTION 16 – Other Information

USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUST AND USE GOOD VENTILATION PROCEDURES TO KEEP ALL AIRBORNE DUST CONCENTRATIONS TO A MINIMUM.

THIS MATERIAL MAY BE COATED WITH A LIGHT PRESERVATIVE OIL AS A RUST INHIBITOR. IF SO COATED APPROPRIATE PRECAUTIONS ALONG WITH PERSONAL PROTECTIVE EQUIPMENT SHOULD BE ISSUED AS REQUIRED.

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