

January 1, 2010

TCS5000

WATER SOLUBLE MACHINING FLUID

Application

- TCS5000 is a water soluble machining fluid designed for all machining applications, even high pressure. It provides excellent tool life needed for production machining or heavy cutting. It is an excellent choice for shops that cut a variety of metals and want to use only one fluid. This product can be used on all form of steel, aluminum and copper.

Features

- Excellent choice for production machining or heavy duty tapping
- Provides a thin film of corrosion protection is easily rinsed off with water.
- Fortified with Extreme Pressure agents
- Worker friendly, Not Hazardous
- Not Irritating
- Low foaming
- Does not contain Nitrites or DEA (Diethanol Amine)

Typical Properties

Appearance:	Blue Liquid
Solubility in water:	100%
pH at a typical 5% dilution:	9.2
Boiling Point:	>140°C
Flash Point, COC	>140°C
Freezing Point, (pour point)	<0°C
Refractive Index at a typical 5% dilution:	5.0
Refractometer Multiplier:	1.0

To determine the approximate concentration of the coolant, multiply the scale reading on the Refractometer by the Refractive Multiplier. You must ensure that the Refractometer is calibrated to 0.0 with water and that most of the tramp oil in the sample has been removed.

The information contained here represents typical product characteristics. Improvements to the formulation or normal variations in manufacturing may cause variations in the above data. This data is not intended to represent any guarantee or warranty with the intended use of the product.

For additional information regarding TCS5000 please refer to its MSDS or contact our technical support staff at 1.800.265.6056.

WHMIS MATERIAL SAFETY DATA SHEET

TCS5000

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Supplier/Manufacturer: Tool and Cutter
430 Newbold Street, London ON Canada N6E 1K1

Emergency or General Information: 1.800.265.6056
Generic Name: Water Soluble Metalworking Fluid Concentrate
Prepared: January 1, 2010

2. HAZARDOUS INGREDIENTS

Ingredient	Approximate Concentration	CAS Number	Exposure Limits
N/E – not established	N/A – not available		

3. HAZARDS IDENTIFICATION

Routes of entry:

If on skin: Wash with soap and water. Remove and launder clothing before re-use.
If in eyes: Flush eyes with large amounts of water for 15 minutes. If irritated, seek medical attention.
If inhaled: Remove individual to fresh air. If irritated, seek medical attention.
If ingested: If swallowed, do not induce vomiting. Seek medical attention immediately.

Potential Acute Health Effects: Not likely to cause irritation unless ingested.
Potential Chronic Health Effects: No known carcinogenic, mutagenic or teratogenic effects

4. FIRST AID MEASURES

If on skin: Wash with soap and water. Remove and launder clothing before re-use.
If in eyes: Flush eyes with large amounts of water for 15 minutes. If irritated, seek medical attention.
If inhaled: Remove individual to fresh air. If irritated, seek medical attention.
If ingested: If swallowed, do not induce vomiting. Seek medical attention immediately.

5. FIRE AND EXPLOSION INFORMATION

Flash Point: >140°C
Hazardous Decomposition Products: Oxides of carbon and other elements
Fire-fighting Procedures: Use dry chemicals, carbon dioxide, foam or water spray
Special Fire & Explosion Hazards: May ignite in the presence of flames. Non-flammable through shock, oxidizers, reducers, metals, acids or alkalis.

6. ACCIDENTAL RELEASE MEASURES

Small Spill: absorb liquid on paper, vermiculite, floor absorbent or other absorbent material
Large Spill: stop spill at source, dike area to prevent spreading. Pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

7. HANDLING AND STORAGE

Avoid contact with eye. Keep container closed. Use in well ventilated area. Wash after handling.
Do not puncture or excessively heat container. Keep away from open flames.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation: adequate ventilation or local exhaust should control airborne mists if generated

Personal Protection: Safety glasses and gloves in normal use

Chemical Name or Product Name: Petroleum Distillates:

Exposure Limits: TWA: 5 mg/m³ from ACGIH (TLV), OSHA (PEL)

9. PHYSICAL CHARACTERISTICS

Appearance: Clear blue liquid

Specific Gravity: 0.95

pH neat: N/A

% volatile: N/A

Vapour Density: heavier than air

Evaporation Rate: less than ether

Boiling Point: >140°C

Freezing Point: <0°C

Solubility in Water: 100%

Vapour Pressure: <0.01 mm of Hg @ 20°C

10. STABILITY AND REACTIVITY DATA

Hazardous Polymerization: will not occur

Stability: stable

Incompatibility: avoid strong oxidizers, or strong mineral acids

11. TOXICOLOGICAL INFORMATION

Potential Acute Health Effects: Not likely to cause irritation unless ingested.

Potential Chronic Health Effects: No known carcinogenic, mutagenic or teratogenic effects

12. ECOLOGICAL INFORMATION

Biodegradation: oxides of carbon and other byproducts

Ecotoxicity: do not dump into drinking water, lakes, ponds or streams

13. DISPOSAL CONSIDERATIONS

Waste Disposal: dispose of according to local and federal regulations. Consult manufacturer for further information

14. TRANSPORTATION INFORMATION

DOT: Not regulated as hazardous goods

Packing Group: None

TGD: Not regulated

IATA: Not regulated

TMDG: Not regulated

15. REGULATORY INFORMATION

All ingredients are on the TSCA inventory and approved for use in industry

All ingredients are on the DSL in Canada and are approved for use in Canada

16. OTHER INFORMATION

HMIS Hazardous Index

H = 1

F = 0

R = 0

PP = B

Key 0 = minimal

Health

Fire

Reactivity

Protection

1 = slight

NFPA Rating

H = 1

F = 0

R = 0

Special Hazards = none

2 = moderate

3 = serious

4 = severe

B = gloves, safety glasses