



## Technical Data Sheet

**Name:** Precision Tech 8500

**Revision Date:** 6/24/2019 – R1

### Precision Tech 8500

CHLORINE-FREE SEMI-SYNTHETIC METALWORKING FLUID

#### DESCRIPTION

Precision Tech 8500 is a high-performance, semi-synthetic metalworking fluid. This water extendable metal removal fluid is a medium water, high content mineral oil, macro-emulsion. It is designed with a combination of non-chlorinated extreme pressure (EP) additives and corrosion inhibitors to improve tool life, surface finish, and increase speeds. The high water and specialized lubricity package improves cooling at the work zone while maintaining the proper boundary film lubricity. The reduced metal-to-metal contact, reduced heat, and proper film strength optimizes tool life through proper chip formation, reduced work hardening and increased heat removal from the cut zone. Precision Tech 8500 is designed with a versatile bio-dynamic protection package. This enables the working fluid in the sump to resist and react against bacteria and fungi growth.

#### FEATURES & BENEFITS

- Chlorine, sulfur, phenol and boron free
- Low to no foam
- Extended tool life with increased production rates
- Best in class resistance to bacteria growth
- Exceptional tramp oil rejection
- Outstanding surface finish
- Non-irritating to operators' skin

#### METAL COMPATIBILITY

- Steel
- Cast Iron
- Stainless Steel
- Titanium
- Hi Temp Alloys
- Aluminum
- Copper
- Brass
- Nickel Alloys
- High Carbon
- Plastics
- Inconel

#### HEALTH & SAFETY

See the most recent SDS which is available directly from Precision Fluids, your local representative or authorized distributor. Precision Fluids uses only raw materials not listed as carcinogenic by IRAC.

#### PROPERTIES

Appearance:	Slightly Viscous Liquid
Diluted Appearance:	Milky Light Blue
Solubility:	Water
Odor:	Mild Industrial
Specific Gravity:	.99
Concentrate pH:	9.5
pH, 5 % dilution:	9.4
Freeze/Thaw Cycles:	Passed 3x

#### APPLICATION & USAGE

Precision Fluids recommends using our Super Green cleaner before adding Precision Tech 8500 to a machine.

The recommended concentration for Precision Tech 8500 is 5-10% for optimum results. However, results for any operation can only be determined through testing.

Maintaining the coolant at its optimum concentration is achieved through daily refractive index checking.

No special precautions are necessary with respect to seals or valves.

#### REFRACTIVE INDEX MONITORING

1.6 x multiplier

Percentage	Ratio	Refractometer Reading
5	19 to 1	3.0
10	9 to 1	6.0
15	6 to 1	9.0
20	4 to 1	12.0

***Fluid compatibility and machinability should always be tested first; as fluid concentration, metal alloy, and machining operation are variable.***

**Precision Fluids, Inc. • 5230 Brittmoore Rd • Houston, TX 77041  
Phone: 713-896-0606 • Fax: 713-896-0610 • [www.precisionfluids.com](http://www.precisionfluids.com)**