



# SOLUBLE OIL 294 SERIES

**SOLUBLE OIL 294 and 294-B** are water-soluble metal cutting fluids containing rust and foam inhibitors and an emulsifier that effectively stabilizes the fluid in soft or hard water. It contains no nitrite or phenol and is safe to use in high-speed cutting operations.

**SOLUBLE OIL 294 and 294-B** are recommended for use in cutting of ferrous and nonferrous metals. Both are recommended for use in milling, boring and turning operations on nonferrous and ferrous metals with machinability rating of 50-100. Approximate water to oil ratio is 30:1 for aluminum and copper, 10:1 for copper alloys, and 15:1 for ferrous metals. Both are also used for such machining operations as planing and shaping, plain drilling and sawing of nonferrous and ferrous metals with machinability rating 30-100. Approximate water to oil ratio-30:1 for aluminum and copper; 10:1 for copper alloys and 20:1 for ferrous metals.

**SOLUBLE OIL 294 and 294-B** are used for plain grinding operations of ferrous and nonferrous metals at water to oil ratio of 40:1 to 50:1. Other uses include, rust preventative for automotive

radiators to 40:1 ratio and as rust preventative in water hydraulic systems at 10:1 ratio.

**SOLUBLE 294-B** contains an effective bactericide at combating microorganisms in sumps and reservoirs that is not in **SOLUBLE OIL 294**. **SOLUBLE OIL 294-B** is most effective at combating microorganisms when it is used at water to oil ratio of 20:1 or lower.

## BENEFITS:

- ECONOMICAL
- FORMS STABLE EMULSION
- FOAM INHIBITED
- RUST INHIBITED FOR PROTECTION OF MACHINE PARTS AND WORKPIECE
- SAFE TO USE, NITRITE FREE AND PHENOL FREE

## TYPICAL CHARACTERISTICS

Grade	294	294-B	294
Location	Tulsa, San Antonio		Tampa, Atlanta
Product Code	16901	16902	16901
API Gravity (ASTM D-1298)	23.8	23.8	29.5
Specific gravity	0.911	0.911	0.874
Color, ASTM D 1500	L3.0	L3.0	5.0
Viscosity (ASTM D-445):			
cSt @ 40°C	25	25	41.6
cSt @ 100°C	4.38	4.38	6.63
SUS @ 100°F	131.	131.	213
Viscosity Index	68	68	113
Pour Point (ASTM D-97) °F (°C)	+10 (-12)	+10 (-12)	+10 (-12)
Flash Point (ASTM D-92) °F (°C)	356 (180)	395 (203)	360 (182)
Emulsion Stability, 24 hr			
A. 5% oil in distilled water	Slight ring - no oil	Slight ring - no oil	Slight ring - no oil
B. 5% oil in 400 ppm CaCO <sub>3</sub>	1 ml Cream cuff - no oil	1 ml Cream cuff - no oil	1 ml Cream cuff - no oil
Sulfur, Wt. %	0.55	0.55	0.35

The above data is subject to usual manufacturing variation. For more information and availability, call 1-800-442-LUBE.

3/17/03