



YOUR METALWORKING FLUID SOLUTIONS FOR SOLUTIONS

OAKFLO[®] DSO 650

PREMIUM SOLUBLE OIL, METALWORKING FLUID CONCENTRATE

<p>APPLICATIONS</p>	<p>OAKFLO[®] DSO 650 metalworking fluid is recommended for a wide variety of heavy-duty machining and grinding operations including turning, drilling, tapping, reaming, gear cutting, broaching, centerless grinding, I.D. grinding, etc.</p> <p>OAKFLO[®] DSO 650 provides “One fluid – All operations: capability in metalworking plants. It is an excellent product for both individual machine sumps and central system applications.</p> <p>Metals: Carbon Steels, High Speed Steel, Cast Steels, Alloy Steel, Tool Steel, Stainless Steel, Cast Iron, Aluminum, Bronze, Brass, Copper Metals</p> <p>Duty Range: For moderate to heavy-duty operations</p>
<p>FEATURES & BENEFITS</p>	<p>MULTI-PURPOSE PRODUCT - Can be used on a wide variety of operations to provide one fluid to meet most metalworking requirements.</p> <p>EXCELLENT LUBRICITY – Contains mineral oil to provide physical lubricity and a chlorinated extreme pressure additive to generate lubricity for heavy-duty operations – Provides excellent tool life and surface finish.</p> <p>EXCELLENT BIOLOGICAL CONTROL – Maintains control of bacteria and mold, resulting in extended fluid life.</p> <p>OPERATOR-FRIENDLY – Mild to skin – Easy to mix – Low Foaming – Pleasant odor.</p> <p>MACHINE FRIENDLY – Compatible with machine components and materials – Liquid residue keeps machine tool components free moving.</p> <p>EXCELLENT CORROSION CONTROL – Rust inhibitors combined with physical protection of oil prevent in-process corrosion on parts and machine components.</p> <p>ECONOMICAL – “One fluid – All operations” minimizes requirements for storage, mixing, charging, make-up, and maintenance – Long sump life and minimal make-up rates.</p> <p>“HASSLE-FREE” – Combination on effective performance and low maintenance contributes to higher metalworking productivity.</p>

**RECOMMENDED
STARTING
DILUTIONS**

FOR INDUSTRIAL USE ONLY

Recommended Starting Dilution: 5% (1:20)

Typical Operating Range: 5%- 10% (1:20 to 1:10)

OAKFLO® DSO 650 is to be mixed with water for use (add concentrate to water).

Add no other substances to the concentrate or mix unless approved by Oak Signature Technical Services. Not recommended for use with magnesium or alloyed magnesium.

For concentration analysis, use the Total Alkalinity Titration Procedure, Non-Solvent Titration Procedure, CIMCHEK™ Test Strip, or Refractometer.

**TYPICAL
PHYSICAL AND
CHEMICAL
PROPERTIES**

Physical state: Liquid

Appearance and odor: Hazy/ Chemical

Colors available: Undyed, Blue

Solubility in water: 100% Miscible

Weight, lb/gal, 60°F (15.6°C): 8.5

Specific gravity, (H₂O = 1): 1.02

Boiling point, °F (°C): 212 (100.0)

Flash point, COC, °F (°C): 385 (193)

Fire point, COC, °F (°C): 405 (204)

Freezing point (or pour point), °F, (°C): 30 (-1)

If frozen, thaw completely at room temperature.

pH, concentrate: NA

pH, 5.0% mix, typical operating conditions: 8.6

Total chlorine/chloride, wt%, calculated: 7.3/< 50ppm

Total sulfur, wt%, calculated: 0.12

Silicone: Yes

PACKAGING

Available in 5-gallon pails, 55-gallon drums, and bulk containers.

REFRACTOMETER FACTOR: 1.0

Multiply the scale reading obtained on your OAK SIGNATURE® Refractometer by this factor to obtain the mix concentration in percent. Calibrate the refractometer so that it reads 0.0 with water before testing the sample mix. Remove gross contaminants from the sample mixes before testing. A refractometer is only recommended for use in checking the concentration on a fresh charge.

SAFETY DATA SHEET

Available at www.cimcool.com

For additional information refer to its OSHA MSDS, website or contact your local OAK SIGNATURE SPECIALIST OR DISTRICT MANAGER, or you may contact OAK SIGNATURE® Technical Services at 1-513-458-8199

Limitation of Liability: Under no circumstances, shall we or any affiliate of ours have any liability whatsoever for loss of use, or for any indirect or consequential damages. Minor formulation changes or normal variations in the manufacture of this product may cause slight variances in the data presented on this sheet.

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