



# CUSTOMER-FOCUSED METALWORKING FLUID SOLUTIONS

## OAKFLO<sup>®</sup> DSO 650CF

PREMIUM SOLUBLE OIL, METALWORKING FLUID CONCENTRATE

<b>APPLICATIONS</b>	<p><b>OAKFLO DSO 650CF</b> metalworking fluid is recommended for a wide variety of "heavy -duty" machining and grinding operations including turning, drilling, tapping, reaming, gear cutting, and broaching.</p> <p><b>Metals:</b> Carbon Steels, High Speed Steel, Cast Steels, Alloy Steels, Tool Steel, Stainless Steel, Cast Iron, Aluminum, Bronze, and Copper</p> <p><b>Duty Range:</b> For heavy-duty operations</p>
<b>FEATURES &amp; BENEFITS</b>	<p><b>OAKFLO DSO 650CF</b> is a chlorine-free, general-purpose product designed for a wide variety of metals and operations.</p> <p><b>EXCELLENT LUBRICITY</b> - Contains mineral oil and other organic lubricants for heavy -duty operations. Provides excellent tool life and surface finishes.</p> <p><b>EXCELLENT BIOLOGICAL CONTROL</b> – which promotes extended fluid life.</p> <p><b>EXCELLENT CORROSION CONTROL</b> - Controls ferrous and nonferrous corrosion on parts and machine components.</p> <p><b>OPERATOR FRIENDLY</b> - Mild to skin. - Easy to mix. - Low foaming. - Pleasant odor.</p> <p><b>MACHINE FRIENDLY</b> - Cleaner machines and work areas create a more pleasant work environment - Residue can be removed with water or alkaline cleaners - No solvent degreasers required as with straight oils.</p> <p><b>ECONOMICAL</b></p>

<p><b>RECOMMENDED STARTING DILUTIONS</b></p>	<p><b>FOR INDUSTRIAL USE ONLY</b>  <b>Recommended Starting Dilution: 5% (1:20)</b>  <b>Typical Operating Range: 5% (1:20) to 10% (1:10)</b>  <b>For concentrations outside this range contact Technical Service at 513-458-8199.</b></p> <p><b>OAKFLO® DSO 650CF</b> is to be mixed with water for use (add concentrate to water). Add no other substances to the concentrate or mix unless approved by Technical Services.</p> <p>Not recommended for use with magnesium or alloyed magnesium.</p> <p><b>For concentration analysis</b> use a refractometer or the Non-Solvent Titration Procedure.</p>
<p><b>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</b></p>	<p><b>Physical state:</b> Liquid  <b>Appearance and odor:</b> Clear / Chemical  <b>Colors available:</b> Undyed, Blue  <b>Solubility in water:</b> 100% Miscible  <b>Weight, lb/gal, 60°F (15.6°C):</b> 7.8  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 0.94  <b>Boiling point, °F (°C):</b> 212 (100)  <b>Flash point, COC, °F (°C):</b> 345 (174)  <b>Fire point, COC, °F (°C):</b> 355 (179)  <b>Freezing point (or pour point), °F, (°C):</b> &lt; 0 (&lt;-18)          If frozen, thaw completely at room temperature.  <b>pH, concentrate:</b> NA  <b>pH, 5.0% mix, typical operating conditions:</b> 8.9  <b>Total chlorine/chloride, wt%, calculated:</b> 0.0/&lt; 50 ppm  <b>Total sulfur, wt%, calculated:</b> 0.2  <b>Silicones:</b> None</p>
<p><b>PACKAGING</b></p>	<p><b>Available in 5-gallon pails, 55-gallon drums, and bulk containers.</b></p>
<p><b>REFRACTOMETER FACTOR = 1.0</b> Multiply the scale reading obtained on most refractometers by the <b>Refractometer Factor</b> to obtain the mix concentration in percent.</p> <p><b>NOTE: Calibrate the refractometer so that it reads 0.0 with water, before testing the sample mix. Remove gross contaminants from the sample mix, before testing.</b></p>	
<p>For additional information concerning OAKFLO DSO 650CF, refer to its OSHA MSDS or contact Technical Services at 1-513-458-8199. Reprints/Updates of this Product Information Flyer (PIF) can be found on our web site, <a href="http://WWW.OAKINTERNATIONAL.COM">WWW.OAKINTERNATIONAL.COM</a> or from your OAK INTERNATIONAL representative.</p> <p><small>Minor formulation changes or normal variations in the manufacture of this product may cause slight variances in the data presented on this sheet.          Consumable Products Division/ Milacron Marketing Company          Cincinnati, Ohio 45209</small></p> <p><b>03/02/06</b> <span style="float: right;"><b>ISO CERTIFIED</b></span></p>	

