

# CIMCOOL®

## METALWORKING FLUIDS

### CIMPERIAL® 1010

SOLUBLE OIL, METALWORKING FLUID CONCENTRATE

<b>APPLICATIONS</b>	<p><b>CIMPERIAL® 1010</b> metalworking fluid is a water-dilutable, premium soluble oil, which forms a milky mix in water.</p> <p><b>CIMPERIAL® 1010</b> is recommended for heavy-duty machining and grinding operations such as broaching, gear cutting, tapping, reaming, internal grinding, and centerless grinding of low machinability ferrous and non-ferrous metals.</p> <p><b>Metals:</b> Carbon Steels, High Speed Steel, Cast Steels, Alloy Steels, Tool Steel, Stainless Steel, Cast Iron, Aluminum, Bronze, Brass, Copper</p> <p><b>Duty Range:</b> For moderate to heavy-duty operations</p>
<b>FEATURES &amp; BENEFITS</b>	<p><b>EXCELLENT LUBRICITY</b> - The extreme pressure additive (chlorine) plus the physical lubrication of the mineral oil in this product provide smooth finishes and good tool life in tough machining and grinding operations.</p> <p><b>GOOD RANCIDITY CONTROL</b> - Effective protection against rancid odors ensures long fluid life and minimizes the use of additives.</p> <p><b>MULTI-PURPOSE PRODUCT</b> - Can be used economically throughout the shop for individual machines or central systems - Can be used on a wide variety of applications, metals, and operations - Vary the dilution to suit the job requirements</p> <p><b>GOOD FERROUS CORROSION CONTROL</b> - Rust inhibitors combined with the physical protection of oil prevent in-process corrosion on parts and machines</p> <p><b>GOOD NON-FERROUS CORROSION CONTROL</b> - May be used on aluminum alloys such as 7075, 2024, and 390 or copper - CIMPERIAL® 1010 is an excellent choice where a variety of metals are machined or ground.</p> <p><b>MACHINE-FRIENDLY</b> - Washes chips and grit away from the areas where the fluid flows across the machine tool - Cleaner machines and work areas create a more pleasant work environment - Residue can be removed with water or alkaline cleaners</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 CIMCOOL® Technical Service at 513-458-8199.</b></p> <p><b>CIMPERIAL® 1010</b> is to be mixed with water for use (add concentrate to water).</p> <p>Add no other substances to the concentrate or mix unless approved by CIMCOOL® Technical Services. Not recommended for use with magnesium or alloyed magnesium.</p> <p><b>For concentration analysis, use the MI Titration Procedure, Non-Solvent Titration Procedure, Total Alkalinity Titration Procedure, or Refractometer.</b></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, Green, Green and Unodorized  <b>Solubility in water:</b> 100% Miscible  <b>Weight, lb/gal, 60°F (15.6°C):</b> 8.40  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.006  <b>Boiling point, °F (°C):</b> Not Applicable  <b>Flash point, COC, °F (°C):</b> 340 (171)  <b>Fire point, COC, °F (°C):</b> 365 (185)  <b>Freezing point (or pour point), °F, (°C):</b> -13 (-25)          If frozen, thaw completely at room temperature.  <b>pH, concentrate:</b> Not Applicable  <b>pH, 5.0% mix, typical operating conditions:</b> 8.7  <b>Total chlorine/chloride, wt%, calculated:</b> 10.20/&lt; 50 ppm  <b>Total sulfur, wt%, calculated:</b> 0.64  <b>Silicones:</b> Yes</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 = 0.9</b> Multiply the scale reading obtained on your CIMCOOL® Metalworking Fluid or other acceptable refractometer 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 CIMPERIAL® 1010, refer to its OSHA MSDS or contact CIMCOOL® 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.CIMCOOL.COM">WWW.CIMCOOL.COM</a> or from your Milacron representative.</p> <p>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</p> <p><b>PC-806 12/6/05</b></p>	

