

# CIMCOOL®

## METALWORKING FLUIDS

### CIMPERIAL® 1011

SOLUBLE OIL, METALWORKING FLUID CONCENTRATE

<b>APPLICATIONS</b>	<p><b>CIMPERIAL® 1011</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, Brass, Copper</p> <p><b>Duty Range:</b> For moderate to heavy-duty operations</p>
<b>FEATURES &amp; BENEFITS</b>	<p><b>EXCEPTIONALLY GOOD BACTERIA AND MOLD CONTROL</b> - No offensive odors caused by excessive bacteria - Ensures long fluid life and minimizes the use of additives</p> <p><b>EXCELLENT LUBRICITY</b> - Contains chlorine as an extreme pressure additive and mineral oil for physical lubrication - Provides smooth finishes and good tool life in tough machining and grinding operations</p> <p><b>MULTI-PURPOSE PRODUCT</b> - Can be used economically throughout the shop - Wide application on metals and operations - Minimizes requirements for storage, mixing, charging, makeup and maintenance</p> <p><b>EXCELLENT FERROUS CORROSION CONTROL</b> - Rust inhibitors combined with the physical protection of oil prevent in-process corrosion on parts and machines</p> <p><b>EXCELLENT NON-FERROUS CORROSION CONTROL</b> - Will not stain aluminum alloys such as 7075 and 2024</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>Note:</b> CIMPERIAL® 1011B is a low foaming version for high pressure applications</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® 1011</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> Hazy / Chemical  <b>Colors available:</b> Green, Undyed  <b>Solubility in water:</b> 100% Miscible  <b>Weight, lb/gal, 60°F (15.6°C):</b> 8.5  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.02  <b>Boiling point, °F (°C):</b> NA  <b>Flash point, COC, °F (°C):</b> 385 (196)  <b>Fire point, COC, °F (°C):</b> 405 (207)  <b>Freezing point (or pour point), °F, (°C):</b> 30 (-1)          If frozen, thaw completely at room temperature.  <b>pH, concentrate:</b> NA  <b>pH, 5.0% mix, typical operating conditions:</b> 8.6  <b>Total chlorine/chloride, wt%, calculated:</b> 7.4 / &lt; 50 ppm  <b>Total sulfur, wt%, calculated:</b> 0.08  <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 = 1.0</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® 1011, 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 style="text-align: center;"><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>PC-809 09/22/08</b></p>	

