

# CIMCOOL<sup>®</sup>

## METALWORKING FLUIDS

### CIMSTAR<sup>®</sup> QUAL STAR<sup>®</sup>

SEMISYNTHETIC, METALWORKING FLUID CONCENTRATE

<b>APPLICATIONS</b>	<p><b>CIMSTAR<sup>®</sup> QUAL STAR<sup>®</sup></b> is recommended for general purpose machining and grinding of ferrous metals. Can also be used on some applications on nonferrous metals.</p> <p><b>Metals:</b> Cast Iron, Nodular Iron, Carbon Steels, High Speed Steel, High Alloy Steels, Stainless Steels, Aluminum</p> <p><b>Duty Range:</b> For moderate to heavy duty operations</p>
<b>FEATURES &amp; BENEFITS</b>	<p><b>CIMSTAR<sup>®</sup> QUAL STAR<sup>®</sup></b> is a new-generation semisynthetic metalworking fluid. It blends the technological advantages of synthetic fluids with the performance capabilities of soluble oils.</p> <p><b>Lubricity</b> - Physical and chemical lubricants provide good machining and grinding properties - Keeps parts and tools cool</p> <p><b>Exceptionally Mild</b> - Ideal for individual machine applications - Can also be used in central systems</p> <p><b>Excellent Ferrous Corrosion Control</b> - Rust inhibitor package is extremely effective in preventing in-process rust on machines and parts - Also effective on cast/malleable/gray/nodular irons</p> <p><b>Non-Ferrous Corrosion Control</b> - Contains non-ferrous corrosion inhibitors which prevent stain on aluminum alloys, brass, copper and bronze</p> <p><b>Superior Rancidity Control</b> - Effective protection against bacteria and mold</p> <p><b>General Purpose Product</b> - Can be used economically throughout the shop on light, moderate and some heavy duty operations; just vary the dilution to suit the job requirements</p> <p><b>Machine Friendly</b> - Liquid residue keeps machine tool components free moving</p> <p><b>Environmentally Friendly</b> - Is easy to maintain and control - It is waste treatable - It can also be recycled for reuse</p>

<p><b>RECOMMENDED STARTING DILUTIONS</b></p>	<p><b>FOR INDUSTRIAL USE ONLY</b>  <b>Use between 5.0% (1:20) and 10.0% (1:10) for machining and grinding ferrous and nonferrous metals.</b></p> <p><b>CIMSTAR<sup>®</sup> QUAL STAR<sup>®</sup></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<sup>®</sup> Technical Services. Not recommended for use with magnesium or alloyed magnesium.</p> <p><b>For concentration analysis, use</b> the MI Titration Procedure, Non-Solvent Titration Procedure, Total Alkalinity Titration Procedure, CIMCHEK<sup>™</sup> Test Strip, or Refractometer.</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, pink  <b>Solubility in water:</b> 100% Miscible  <b>Weight, lb/gal, 60°F (15.6°C):</b> 8.39  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.006  <b>Boiling point, °F (°C):</b> 212 (100)  <b>Flash point, COC, °F (°C):</b> None, self extinguishing  <b>Fire point, COC, °F (°C):</b> NA  <b>Extinguishing media:</b> NA  <b>Unusual fire &amp; explosion hazards:</b> None  <b>Freezing point (or pour point), °F, (°C):</b> 32 (0)          If frozen, thoroughly thaw prior to using.  <b>pH, concentrate:</b> 9.8  <b>pH, 5.0% mix, typical operating conditions:</b> 8.9  <b>Total chlorine/chloride, wt%, calculated:</b> 0.00/&lt; 50 ppm  <b>Total sulfur, wt%, calculated:</b> 0.16  <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 = 1.4</b> Multiply the scale reading obtained on your CIMCOOL<sup>®</sup> 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 CIMSTAR<sup>®</sup> QUAL STAR<sup>®</sup>, refer to its OSHA MSDS or contact CIMCOOL<sup>®</sup> Technical Services at 1-513-458-8199.</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>11/1/00</p>	