

# CIMCOOL<sup>®</sup>

## METALWORKING FLUIDS

### CIMSTAR<sup>®</sup> QUAL STAR<sup>®</sup> XL HZ SEMISYNTHETIC, METALWORKING FLUID CONCENTRATE

<b>APPLICATIONS</b>	<p><b>CIMSTAR<sup>®</sup> QUAL STAR<sup>®</sup> XL HZ</b> is recommended for general-purpose machining and grinding of ferrous metals. It can also be used on some moderate to heavy-duty applications on non-ferrous metals.</p> <p><b>Metals:</b> Cast Iron, Nodular Iron, Malleable Iron, Gray Iron, Carbon Steels, Cast Steel, 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> XL HZ</b> is a new-generation biostable semi-synthetic that blends the technological advantages of modern day synthetic fluids with the performance capabilities of soluble oils. This product is more tolerant of harder tap water.</p> <p><b>EXCELLENT RANCIDITY CONTROL</b> - Contains a patented microbial control package - Effective protection against bacteria and mold - Provides long life and minimizes the use of additives</p> <p><b>LUBRICITY</b> - Physical and chemical lubricants provide good machining and grinding properties - Keeps parts and tools cool</p> <p><b>EXCELLENT FERROUS CORROSION CONTROL</b> – The rust inhibitor package is extremely effective in preventing in-process rust on machines and parts - also very effective on cast/malleable/gray/ and nodular iron</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>GENERAL-PURPOSE PRODUCT</b> - Can be used economically throughout the shop on light to moderate-duty operations; just vary the dilution to suit the job requirements</p> <p><b>OPERATOR FRIENDLY</b> - Easy to maintain and control - Waste treatable using standard fluid treatment procedures and systems - Can be recycled for reuse</p>

<b>RECOMMENDED STARTING DILUTIONS</b>	<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>CIMSTAR® QUAL STAR® XL HZ</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</b> the MI Titration Procedure, Non-Solvent Titration Procedure, Total Alkalinity Titration Procedure, CIMCHEK™ Test Strip, or Refractometer.</p>
<b>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</b>	<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> 8.50  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.0180  <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> None, Self Extinguishing  <b>Freezing point, °F, (°C):</b> 26 (-3)  If frozen, product separates. Thaw completely at room temperature and stir thoroughly.  <b>pH, concentrate:</b> 10.0  <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> 0.27  <b>Silicones:</b> None  <b>Triazine:</b> None  <b>Dicyclohexylamine:</b> None</p>
<b>PACKAGING</b>	<b>Available in 5-gallon pails, 55-gallon drums, and bulk containers.</b>

**REFRACTOMETER FACTOR = 1.5** Multiply the scale reading obtained on your CIMCOOL® Metalworking Fluid or other acceptable refractometer by the **Refractometer Factor** to obtain the mix concentration in percent.

**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.**

For additional information concerning CIMSTAR® QUAL STAR® XL HZ, 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, [WWW.CIMCOOL.COM](http://WWW.CIMCOOL.COM) or from your Milacron representative.

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

PC-9962 8/22/07

