

# CIMCOOL®

## METALWORKING FLUIDS

### CimVantage® CSS-WR 380 SEMISYNTHETIC, METALWORKING FLUID CONCENTRATE

<b>APPLICATIONS</b>	<p><b>CimVantage® CSS-WR 380</b> is an economical, water soluble, semisynthetic metalworking fluid.</p> <p><b>Metals:</b> Aluminum, Cast Iron, Carbon Steels, High Speed Steel, High Alloy Steels, Stainless Steels, Copper, Brass, Bronze, and some Exotic Alloys</p> <p><b>Duty Range:</b> For moderate to heavy-duty operations</p>
<b>FEATURES &amp; BENEFITS</b>	<p><b>EXCELLENT LUBRICITY</b> - Contains a chlorinated extreme pressure lubricant which will allow difficult operations such as "Roll Tapping" aluminum to be accomplished - Excellent tool life and surface finish</p> <p><b>EXCELLENT FOAM CONTROL</b> - Very low foaming, without the use of silicone antifoam</p> <p><b>EXCELLENT CLEANLINESS</b> - Rejects tramp oil, provides clean parts and keeps machines clean</p> <p><b>FORGIVING RESIDUE</b> - The product is easily rinsed off parts for post-machining operations</p> <p><b>EXCELLENT MICROBIAL CONTROL</b> - Excellent bio-stability - Provides long sump life</p> <p><b>EXCELLENT CORROSION CONTROL</b> - Specialized non-ferrous corrosion inhibitors eliminate part staining and prevent bi-metallic corrosion</p> <p><b>SUPERIOR MATERIAL and APPLICATION COMPATIBILITY</b> - Designed to meet requirements for aluminum wheel machining - Compatible with many titanium alloys and other exotic alloys - Can be used on ferrous and non-ferrous metals where one product is needed for a variety of jobs</p> <p><b>OPERATOR-FRIENDLY</b> - No smoke - No slippery film on parts, machinery or floor - Low misting - Mild to the skin</p>

<p><b>RECOMMENDED STARTING DILUTIONS</b></p>	<p><b>FOR INDUSTRIAL USE ONLY</b>  <b>Recommended Starting Dilution: 8% (1:13)</b>  <b>Typical Operating Range: 8% (1:13) to 12% (1:8)</b>  <b>For concentrations outside this range contact CIMCOOL® Technical Service at 513-458-8199.</b></p> <p><b>CimVantage® CSS-WR 380</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 CIMCOOL® Technical Services.</p> <p>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>
<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  <b>Solubility in water:</b> 100% Miscible  <b>Weight, lb/gal, 60°F (15.6°C):</b> 8.68  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.04  <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>Freezing point (or pour point), °F, (°C):</b> 28 (-2)  If frozen, product separates. Thaw completely at room temperature and stir thoroughly.  <b>pH, concentrate:</b> 9.1  <b>pH, 8.0% mix, typical operating conditions:</b> 8.7  <b>Total chlorine/chloride, wt%, calculated:</b> 2.41/&lt; 50 ppm  <b>Total sulfur, wt%, calculated:</b> 0.16  <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 = 2.3</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 <b>CimVantage® CSS-WR 380</b>, 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.  Milacron Marketing Company  Cincinnati, Ohio 45209</p> <p>PC-9996 11/6/06</p>	

