

# CIMCOOL®

## METALWORKING FLUIDS

### CimVantage® CSS-NR7 SEMISYNTHETIC, METALWORKING FLUID CONCENTRATE

<b>APPLICATIONS</b>	<p><b>CimVantage® CSS-NR7</b> is a general-purpose fluid for machining and grinding iron, steel and aluminum.</p> <p>It has the performance capabilities of soluble oils. It is also recommended for tapping, reaming, turning, drilling, internal grinding, and centerless grinding.</p> <p><b>Metals:</b> Cast Iron, Nodular Iron, Carbon Steels, High Speed Steel, High Alloy Steels, Stainless Steels and some aluminums</p> <p><b>Duty Range:</b> For moderate to heavy-duty operations</p>
<b>FEATURES &amp; BENEFITS</b>	<p><b>CimVantage® CSS-NR7</b> metalworking fluid is a clean, completely water soluble, phenol-free, semi synthetic product that contains an extreme pressure (EP) lubricant for superior machining and grinding capability.</p> <p><b>ADVANTAGES</b> - Economical, Excellent lubricity, Excellent rancidity and mold control, Outstanding cleanliness, Leaves a soft residue</p> <p><b>BIOSTABLE</b> - Exceptionally good bacteria and mold control</p> <p><b>ENVIRONMENTALLY FRIENDLY</b> - Is waste treatable using standard fluid treatment procedures and systems. It can also be recycled for reuse using appropriate metalworking fluid recycling equipment.</p> <p><b>ECONOMICAL</b> - Cost effective</p> <p><b>VERSATILE</b> - Specially designed for machining and grinding of iron, steel and some aluminums</p> <p><b>CORROSION CONTROL</b> - Excellent corrosion control on both ferrous and most non-ferrous metals</p>

<b>RECOMMENDED STARTING DILUTIONS</b>	<p><b>FOR INDUSTRIAL USE ONLY</b>  <b>Recommended Starting Dilution: 10% (1:10)</b>  <b>Typical Operating Range: 8% (1:12) 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-NR7</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>
<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  <b>Solubility in water:</b> 100% Miscible  <b>Mix appearance:</b> Hazy  <b>Weight, lb/gal, 60°F (15.6°C):</b> 8.5  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.01  <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> 30 (-1)  <b>Protect from freezing</b>  <b>pH, concentrate:</b> 10.2  <b>pH, 10.0% mix, typical operating conditions:</b> 9.0  <b>Total chlorine/chloride, wt%, calculated:</b> 2.9  <b>Total sulfur, wt%, calculated:</b> 0.3  <b>Silicones:</b> None</p>
<b>PACKAGING</b>	<b>Available in 5-gallon pails, 55-gallon drums, and bulk containers.</b>
<p><b>REFRACTOMETER FACTOR = 2.7</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 CimVantage® CSS-NR7, 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><small>LIMITATION OF LIABILITY: Under no circumstances shall we or any affiliate of ours have any liability whatsoever for loss of use or for any indirect or consequential damages. Minor formulation changes or normal variations in the manufacture of this product may cause slight variances in the data presented on this sheet.</small></p> <p style="text-align: center;"><small>Milacron Marketing Company LLC Cincinnati, Ohio 45209</small></p> <p><b>PC-10029 02/05/2009</b></p>	

