

CIMCOOL[®]

METALWORKING FLUIDS

CimVantage[®] CSO-NR12 SOLUBLE OIL, METALWORKING FLUID CONCENTRATE

APPLICATIONS	<p>CimVantage[®] CSO-NR12 metalworking fluid is a soluble oil designed for light to moderate-duty machining and grinding of ferrous and non-ferrous materials.</p> <p>CimVantage[®] CSO-NR12 can be used in individual machines or central systems</p> <p>Metals: Carbon Steels, High Speed Steel, Cast Steels, Alloy Steels, Tool Steel, Stainless Steel, Cast Iron, Aluminum, Bronze, Brass, Copper</p> <p>Duty Range: For light to moderate-duty operations</p>
FEATURES & BENEFITS	<p>LUBRICITY - CimVantage[®] CSO-NR12 can perform a variety of machining and grinding applications.</p> <p>LOW FOAMING - Can be used in high turnover, high-pressure applications where foam control is required</p> <p>VERY GOOD RANCIDITY CONTROL - Contains a microbial control package which extends fluid life for long lasting, trouble-free performance</p> <p>WIDE APPLICATION RANGE - Can be used on a wide variety of metals and operations</p> <p>WASTE TREATABLE - Compatible with most conventional waste treatment methods</p> <p>OPERATOR FRIENDLY - Mild to skin - Easy to mix</p>

<p>RECOMMENDED STARTING DILUTIONS</p>	<p>FOR INDUSTRIAL USE ONLY Recommended Starting Dilution: 10% (1:10) Typical Operating Range: 8% (1:12) to 12% (1:8) For concentrations outside this range contact CIMCOOL® Technical Service at 513-458-8199.</p> <p>CimVantage® CSO-NR12 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>For concentration analysis, use the MI Titration Procedure, Non-Solvent Titration Procedure, Total Alkalinity Titration Procedure, or Refractometer.</p>
<p>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</p>	<p>Physical state: Liquid Appearance and odor: Clear / Chemical Colors available: Undyed Solubility in water: 100% Miscible Weight, lb/gal, 60°F (15.6°C): 7.8 Specific gravity, (H₂O = 1): 0.93 Boiling point, °F (°C): Not Applicable Flash point, COC, °F (°C): 320 (160) Fire point, COC, °F (°C): 350 (177) Freezing point (or pour point), °F, (°C): 30 (-1) If frozen, thaw completely at room temperature. pH, concentrate: Not Applicable pH, 10.0% mix, typical operating conditions: 8.7 Total chlorine/chloride, wt%, calculated: 0.00/< 50 ppm Total sulfur, wt%, calculated: 0.02 Silicones: None</p>
<p>PACKAGING</p>	<p>Available in 5-gallon pails, 55-gallon drums, and bulk containers.</p>
<p>REFRACTOMETER FACTOR = 1.0 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.</p> <p>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.</p>	
<p>For additional information concerning CimVantage® CSO-NR12, 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 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. Consumable Products Division/ Milacron Marketing Company Cincinnati, Ohio 45209</p> <p>PC-811 2/22/07</p>	

