

CIMCOOL®

METALWORKING FLUIDS

CIMSTAR® S4

SEMISYNTHETIC, METALWORKING FLUID CONCENTRATE

APPLICATIONS	<p>CIMSTAR® S4 metalworking fluid is a clear, water-soluble, semisynthetic product designed for machining and grinding.</p> <p>Metals: Cast Iron, Nodular Iron, Carbon Steels, Alloy Steels, Aluminum, Copper, Brass, Bronze</p> <p>Duty Range: For light to moderate-duty operations</p>
FEATURES & BENEFITS	<p>GOOD RANCIDITY CONTROL - Minimizes unpleasant odors caused by the growth of bacteria and mold - Prevents depletion of mix from the action micro-organisms - Ensures long product life</p> <p>EXCEPTIONALLY MILD - A good product for individual machines where metalworking fluid control is difficult</p> <p>ECONOMICAL - low cost per mix gallon - long life increases production and produces savings in labor costs, downtime, and waste disposal, because recharging is infrequent</p> <p>EXCELLENT CORROSION CONTROL - a semisynthetic product which is particularly effective in controlling corrosion on both cast iron and aluminum</p> <p>GOOD FOAM CONTROL - low foaming in water of 125 ppm and 250 ppm hardness</p> <p>EXCELLENT CHIP STEELING CHARACTERISTICS - Settles cast iron and steel fines rapidly, preventing recirculation of particles that deplete the mix and mar finishes</p>

<p>RECOMMENDED STARTING DILUTIONS</p>	<p>FOR INDUSTRIAL USE ONLY Recommended Starting Dilution: 5% (1:20) Typical Operating Range: 5% (1:20) to 10% (1:10) For concentrations outside this range contact CIMCOOL® Technical Service at 513-458-8199.</p> <p>CIMSTAR® S4 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>For concentration analysis, use the MI Titration Procedure, Non-Solvent Titration Procedure, Total Alkalinity Titration Procedure, CIMCHEK™ Test Strip, or Refractometer.</p>
<p>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</p>	<p>Physical state: Liquid Appearance and odor: Clear / Chemical Colors available: Pink Solubility in water: 100% Miscible Weight, lb/gal, 60°F (15.6°C): 8.30 Specific gravity, (H₂O = 1): 0.994 Boiling point, °F (°C): 212 (100.0) Flash point, COC, °F (°C): None, Self Extinguishing Fire point, COC, °F (°C): NA Freezing point (or pour point), °F, (°C): 32 (0.0) If frozen, thaw completely at room temperature. pH, concentrate: 9.6 pH, 5.0% mix, typical operating conditions: 9.4 Total chlorine/chloride, wt%, calculated: 0.00/< 50 ppm Total sulfur, wt%, calculated: 0.29 Silicones: None</p>
<p>PACKAGING</p>	<p>Available in 5-gallon pails, 55-gallon drums, and bulk containers.</p>
<p>REFRACTOMETER FACTOR = 2.6 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 CIMSTAR® S4, 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-834 12/14/06</p>	

