

# CIMCOOL®

## METALWORKING FLUIDS

### CIMTECH® 104 (formerly CIMFREE® 104) SYNTHETIC, METALWORKING FLUID CONCENTRATE

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| <b>APPLICATIONS</b>            | <p><b>CIMTECH® 104</b> is a synthetic metalworking fluid formulated for machining and grinding of ferrous metals.</p> <p><b>Metals:</b> Cast Iron and Carbon Steels</p> <p><b>Duty Range:</b> Light duty operations</p>   |
| <b>FEATURES &amp; BENEFITS</b> | <p><b>EXCELLENT SETTLING PROPERTIES</b> – even cast iron and graphite fines settle readily. The mix stays clean; finish marring chips and grit do not recirculate through the system.</p> <p><b>EXCEPTIONAL ODOR CONTROL</b> – no offensive odors caused by excessive growth of bacteria and mold is formulated to resist depletion by micro-organisms and chips, minimal concentrate additions will maintain the recommended concentration.</p> <p><b>DEPLETION RESISTANT</b> – lean make-up rates keeps concentration at the recommended dilution since the CIMTECH 104 is not easily degraded by bacteria or heavy chip loads. Saves money by reducing the amount of concentrate that must be purchased or kept on hand, and by providing long-term trouble free performance.</p> <p><b>EXCELLENT CORROSION CONTROL</b> - Protects cast iron and steel from rust using a unique proprietary combination of rust inhibitors prevents corrosion of cast iron and steel</p> <p><b>COMPATIBLE WITH BOTH HARD AND SOFT WATER</b> - Good foam control and mix stability</p> <p><b>EMULSIFIES</b> very little tramp oil</p> |

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| <p><b>RECOMMENDED STARTING DILUTIONS</b></p>  | <p><b>FOR INDUSTRIAL USE ONLY</b><br/> <b>Recommended Starting Dilution: 2.5% (1:40)</b><br/> <b>Typical Operating Range: 2.5% (1:40) to 3.3% (1:33)</b><br/> <b>For concentrations outside this range contact CIMCOOL® Technical Service at 513-458-8199.</b></p> <p><b>CIMTECH® 104</b> is to be mixed with water for use (add concentrate to water).<br/> 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 the BCG Titration Procedure, Total Alkalinity Titration Procedure, CIMCHEK™ Test Strip, or Refractometer.</b></p>  |
| <p><b>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</b></p>  | <p><b>Physical state:</b> Liquid<br/> <b>Appearance and odor:</b> Clear / Chemical<br/> <b>Colors available:</b> Undyed<br/> <b>Solubility in water:</b> 100% Miscible<br/> <b>Weight, lb/gal, 60°F (15.6°C):</b> 9.7<br/> <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.16<br/> <b>Boiling point, °F (°C):</b> 212 (100)<br/> <b>Flash point, COC, °F (°C):</b> None, Self Extinguishing<br/> <b>Fire point, COC, °F (°C):</b> None, Self Extinguishing<br/> <b>Freezing point, °F, (°C):</b> 0 F (-18)<br/> If frozen, product separates. Thaw completely at room temperature and stir thoroughly.<br/> <b>pH, concentrate:</b> 10.1<br/> <b>pH, 3.3% mix, typical operating conditions:</b> 9.0<br/> <b>Total chlorine/chloride, wt%, calculated:</b> 0.00 / &lt; 50 ppm<br/> <b>Total sulfur, wt%, calculated:</b> 0.2<br/> <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 = 3.2</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>CIMTECH® 104</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.<br/> Milacron Marketing Company LLC<br/> Cincinnati, Ohio 45209</p> <p><b>PC-9898 10/21/2008</b></p>   |   |

