

CIMCOOL®

METALWORKING FLUIDS

CIMPERIAL® 1880M (formerly CX-188A) SOLUBLE OIL, METALWORKING FLUID CONCENTRATE

APPLICATIONS	<p>CIMPERIAL® 1880M metalworking fluid is a premium soluble oil designed for machining magnesium, but can also be used on other materials, including aluminum.</p> <p>CIMPERIAL® 1880M can be used in individual machines or central systems</p> <p>Metals: Magnesium*, Aluminum, Carbon Steels, High Speed Steel, Cast Steels, Alloy Steels, Tool Steel, Stainless Steel, Cast Iron, Bronze, Brass, Copper</p> <p>Duty Range: For moderate to heavy-duty operations</p>
FEATURES & BENEFITS	<p>MAGNESIUM COMPATIBILITY* - Using CIMPERIAL® 1880M for machining magnesium results in the lowest level of hydrogen evolution, when compared to all other water-based products tested - Reduces magnesium dust creation</p> <p>MIX STABILITY - Excellent mix stability, even in the presence of high levels of magnesium</p> <p>EXCELLENT LUBRICITY - CIMPERIAL® 1880M can perform a variety of machining applications on magnesium, aluminum and steel</p> <p>CLEANLINESS - Good mix cleanliness, even in the presence of magnesium</p> <p>GOOD CORROSION CONTROL - Good corrosion control on magnesium, ferrous and other nonferrous metals</p> <p>VERY GOOD RANCIDITY CONTROL - Contains a microbial control package which extends fluid life for long lasting, trouble-free performance</p> <p>LOW FOAMING - Can be used in high turnover, high pressure applications</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: 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>CIMPERIAL® 1880M 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.</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): NA Flash point, COC, °F (°C): 335 (168) Fire point, COC, °F (°C): 345 (174) Freezing point, °F, (°C): < 0 (< -18) If frozen, thaw completely at room temperature. pH, concentrate: NA pH, 5.0% mix, typical operating conditions: 8.5 Total chlorine/chloride, wt%, calculated: 0.000/< 50 ppm Total sulfur, wt%, calculated: 0.22 Silicones: None</p>
<p>PACKAGING</p>	<p>Available in 5-gallon pails, 55-gallon drums, and bulk containers.</p>
<p>REFRACTOMETER FACTOR = 0.9 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 CIMPERIAL® 1880M, refer to its OSHA MSDS or contact CIMCOOL® Technical Services at 1-513-458-8199.</p> <p>* - OTHER PRECAUTIONS: When using this product on magnesium or alloys of magnesium proper safety procedures must be followed. These include: 1) providing ample flooding of the part with the metalworking fluid; 2) minimizing magnesium chip accumulation in machines, sumps and tanks; 3) promptly separating magnesium chips from the fluid; and 4) providing ventilation for hydrogen gas. For more information on machining of magnesium with water based metalworking fluids, please refer to the "Hydro Magnesium" website, http://www.hydrumagnesium.com, in their brochure section under "Machining Magnesium" or the International Magnesium Association brochure "Safe Machining And Handling Of Magnesium Chips, Turnings & Grindings" that can be found in their "Publication and Video" section of their website, http://www.intlmag.org/brochures.aspx</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>2/5/08</p>	

