

CIMCOOL®

METALWORKING FLUIDS

CIMPERIAL® HD90Z

SOLUBLE OIL, METALWORKING FLUID CONCENTRATE

APPLICATIONS	<p>CIMPERIAL® HD90Z metalworking fluid is a premium soluble oil, which forms a milky mix in water. CIMPERIAL® HD90Z is used for grinding and machining operations, central systems or individual machines.</p> <p>Metals: Carbon Steels, High Speed Steel, Alloy Steels, Tool Steel, Stainless Steel (It is also non-staining to some aluminum)</p> <p>Duty Range: For heavy to extremely heavy-duty operations</p>
FEATURES & BENEFITS	<p>CIMPERIAL® HD90Z contains extreme pressure (EP) additives making it excellent for heavy to extremely heavy-duty grinding operations such as centerless, form, creep-feed, center type operations. In addition CIMPERIAL® HD90Z is excellent for low-speed, low clearance machining operations such as threading, tapping, broaching, reaming, gun drilling and gear hobbing.</p> <p>EXCELLENT RANCIDITY CONTROL - Contains a patented microbial control package - Effective protection against bacteria and mold - Provides long life and minimizes the use of additives</p> <p>LUBRICITY - Exhibits an excellent grinding ratio when compared to both straight oils and conventional soluble oils - Increased productivity because high speeds and feeds can be used - The better cooling and cleaning ability provide higher stock removal rates and better finishes than straight oils</p> <p>CORROSION PROTECTION - Excellent protection by a combination of chemical corrosion inhibitors and the physical protection of oil - No black staining problems like those associated with sulfurized cutting oils</p> <p>MACHINE FRIENDLY - Cleaner machines and work areas making for a cleaner work environment - Residue can be removed with water or alkaline cleaners; no solvent degreasers required as with straight oils</p> <p>COST EFFECTIVE - Provides higher productivity and improved cleanliness compared to straight oils - Avoids housekeeping problems and fire hazards of straight oils</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® HD90Z 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: Undyed Solubility in water: 100% Miscible Weight, lb/gal, 60°F (15.6°C): 8.3 Specific gravity, (H₂O = 1): 1.00 Boiling point, °F (°C): Not Applicable Flash point, COC, °F (°C): 370 (188) Fire point, COC, °F (°C): 395 (202) Freezing point, °F, (°C): -5 (-21) If frozen, thaw completely at room temperature. pH, concentrate: Not Applicable pH, 5.0% mix, typical operating conditions: 8.9 Total chlorine/chloride, wt%, calculated: 6.67 / < 50 ppm Total sulfur, wt%, calculated: 2.72 Silicones: None Dicyclohexylamine: 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® HD90Z, 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 style="text-align: center;"><small>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</small></p> <p>PC-9804 7/3/08</p>	

