



**OAK INTERNATIONAL**  
Global Metalforming Fluids

# OAK PROTECT<sup>®</sup> 401

## SYNTHETIC CORROSION PREVENTATIVE CONCENTRATE

<b>APPLICATIONS</b>	<p><b>Oak Protect 401</b> is a synthetic, water-dilutable, indoor corrosion preventive for ferrous metals. It is designed to deposit a very thin film, which is easily removed in aqueous cleaners.</p> <p><b>Oak Protect 401</b> will provide up to two months in-process corrosion protection depending on concentration used, humidity, and air temperature. <b>Oak Protect 401</b> may be applied by spray, dip, flow, coat or roller coat methods.</p> <p><b>Oak Protect 401</b> is an ideal choice for:</p> <ol style="list-style-type: none"><li>1. Final rinse after immersion or spray cleaning.</li><li>2. Dip rust preventive after machining.</li><li>3. Final rinse after tumbling or deburring operations.</li><li>4. Leak testing and inspection.</li></ol> <p><b>Note:</b> <b>Oak Protect 401</b> can also be added directly to deburring/burnishing compounds at 1-2% to prevent flash rusting of parts.</p>
<b>COMPETITIVE ADVANTAGES</b>	<ul style="list-style-type: none"><li>• Excellent short-term indoor rust protection.</li><li>• Dry, almost imperceptible film - no oily residue.</li><li>• Versatile formulation for spray or dip applications.</li><li>• Easily cleanable with all aqueous cleaners.</li><li>• Eliminates fire hazards associated with solvent products.</li><li>• Outstanding tank life, resistant to microorganisms.</li></ul>

<p><b>GETTING STARTED</b></p>	<p><b>FOR INDUSTRIAL USE ONLY</b>  <b>Typical use range: 5% - 20% (1:20 - 1:5) with water.</b>  Always let metal parts dry before packing and/or storage.  Heating the solution will aid in decreasing drying time. To maintain corrosion protection, do not rinse metal parts after applying <b>Oak Protect 401</b>.</p> <p>Add no other substances to the concentrate or mix unless approved by your OAK Representative. Not recommended for use with magnesium or alloyed magnesium.</p>
<p><b>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</b></p>	<p><b>Physical state:</b> Liquid  <b>Appearance and odor:</b> Clear, chemical  <b>Color available:</b> Undyed (light amber)  <b>Solubility in water:</b> 100% miscible  <b>Weight, lb/gal, 60°F (15.6°C):</b> 8.7  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.05  <b>Boiling point, °F (°C):</b> 212 (100)  <b>Flash point, COC, °F (°C):</b> None, Self Extinguishing  <b>Extinguishing media:</b> N/A  <b>Unusual fire &amp; explosion hazards:</b> None  <b>Freezing point (or pour point), °F (°C):</b> Not determined. If frozen, thaw completely at room temperature and stir prior to use.  <b>pH, concentrate:</b> 10.2 typical  <b>pH, 10% mix, typical operating conditions:</b> 10.0  <b>Silicones:</b> None  <b>Residual film:</b> Dry</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 = 2.0</b> Multiply the scale reading obtained on most refractometers 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>OAK PROTECT 401</b>, refer to its OSHA MSDS or contact OAK INTERNATIONAL at 1-269-651-9790.</p>	
<p><b>WARRANTY:</b> Oak International, Inc. will grant credit on any product which proves defective in material or workmanship as determined by us subject to the following conditions: all material is subject to our inspection prior to issuing credit; any refund will be adjusted based on the volume of product used; no credit will be granted for used or unused product(s) over one year old as determined by the batch number. The terms in this warranty do not in any way extend to any product thereof covered by this agreement, which has a life, under normal usage, inherently shorter than the one year period indicated above. Except as set forth expressly in writing herein, there are no other warranties express or implied in respect of any product. No warranty of merchantability or fitness for purpose shall apply.</p>	
<p><b>LIMITATION OF LIABILITY:</b> Under no circumstances shall we or any affiliate of ours have any liability whatsoever for loss of use or for any indirect or consequential damages.</p>	
<p><b>Minor formulation changes or normal variations in the manufacture of this product may cause slight variances in the data presented on this sheet. 12/12/07 REV</b></p>	