



## **OAK DRAW<sup>®</sup> 945**

### **STAMPING AND DRAWING OIL**

<b>APPLICATIONS</b>	<p><b>Oak Draw 945</b> was developed specifically for the fine blanking process for ferrous metals. <b>Oak Draw 945</b> is fortified with special lubricity additives to achieve high quality part finishes and hold up under high temperatures and pressures involved in the fineblanking operation. Oak Draw 945 will fine blank metal in excess of 0.50".</p> <ul style="list-style-type: none"><li>▪ <b>Oak Draw 945</b> is used to draw and stamp low to medium carbon steel with a tensile strength between 20-30 tons/inch.</li><li>▪ Alloy steels and high carbon steel in a spherodized annealed condition.</li><li>▪ Hot rolled (preferably descaled) and cold rolled steels.</li><li>▪ 52100 alloy steel (descaled).</li><li>▪ Stainless steels.</li><li>▪ Fine blanking metals in excess of 0.50".</li></ul>
<b>COMPETITIVE ADVANTAGES</b>	<ul style="list-style-type: none"><li>▪ High edge finish.</li><li>▪ Superior tool &amp; die life.</li><li>▪ Excellent anti-weld properties.</li><li>▪ Outstanding heat and oxidation stability.</li><li>▪ Easily removed in Oak International cleaners.</li><li>▪ Good corrosion protection.</li><li>▪ Superior metal wetting and "cling" for total metal coverage.</li><li>▪ Extended punch life.</li></ul>

<b>GETTING STARTED</b>	<p><b>FOR INDUSTRIAL USE ONLY</b></p> <p><b>Oak Draw 945</b> is used as received or diluted with a light oil-base Oak Draw product. <b>Oak Draw 945</b> can be applied by spray, drip, flood or roll coat methods.</p> <p>Add no other substances to the concentrate or mix unless approved by your OAK Representative.</p>
<b>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</b>	<p><b>Physical state:</b> Liquid  <b>Appearance and odor:</b> Clear, chemical  <b>Color available:</b> Dark amber  <b>Solubility in water:</b> Insoluble  <b>Weight, lb/gal, 60°F (15.6°C):</b> 8.9  <b>Specific gravity, (H<sub>2</sub>O = 1):</b> 1.07  <b>Viscosity SUS, 100°F:</b> 1100  <b>Boiling point, °F (°C):</b> Not determined  <b>Flash point, COC, °F (°C):</b> &gt; 300 (&gt; 148.9)  <b>Extinguishing media:</b> CO<sub>2</sub>, foam, dry chemical  <b>Unusual fire &amp; explosion hazards:</b> None  <b>pH, concentrate:</b> Not applicable  <b>Total chlorine, wt%, calculated:</b> 24  <b>Total sulfur, wt%, calculated:</b> 0.5  <b>Silicones:</b> None</p>
<b>PACKAGING</b>	<p><b>Available in 5-gallon pails, 55-gallon drums and bulk containers.</b></p>
<p>For additional information concerning <b>OAK DRAW 945</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. 11/29/07 REV</b></p>	

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