



OAK INTERNATIONAL
Global Metalforming Fluids

OAK DRAW[®] 593-LA

EVAPORATIVE LUBRICANT

APPLICATIONS	<p>Oak Draw 593-LA is a low VOC lubricant developed for fin stamping and drawing in the air conditioning and heat transfer industries. Oak Draw 593-LA combines the ultimate in boundary lubrication and film strength with state-of-the-art synthetic lubricant technology.</p> <p>Oak Draw 593-LA lubricant has been specifically designed to have low levels of formate and acetate generation when hydrolyzed.</p> <p>Oak Draw 593-LA lubricant is primarily used to stamp and draw aluminum sheet stock where post cleaning is prohibitive. The nature of this unique synthetic lubricant supplies high boundary lubrication, without leaving excessive residues to interfere with subsequent assembling and/or manufacturing processes.</p> <p>Oak Draw 593-LA can produce a wide range of collar heights and fin configurations.</p> <p>Not recommended for tube bending.</p>
COMPETITIVE ADVANTAGES	<ul style="list-style-type: none">✓ May not require post cleaning.✓ Excellent corrosion protection.✓ Good die and tool life.✓ Non-staining to aluminum and copper alloys.✓ Low-V.O.C.✓ Can be brazed or welded.

<p>GETTING STARTED</p>	<p>FOR INDUSTRIAL USE ONLY Oak Draw 593-LA is used as received. Oak Draw 593-LA may be rolled or sprayed.</p> <p>Add no other substances to the concentrate or mix unless approved by your OAK Representative.</p>
<p>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</p>	<p>Physical state: Liquid Appearance and odor: Clear, mild Color available: Colorless Solubility in water: Insoluble Weight, lb/gal, 60°F (15.6°C): 6.96 Specific gravity, (H₂O = 1): 0.81 Boiling point, °F (°C): Not determined Flash point, Seta CC, °F (°C): 141 (60.6) Extinguishing media: CO₂, foam, dry chemical Unusual fire & explosion hazards: See flash point pH, concentrate: Not applicable Total chlorine, wt%, calculated: 0.0 Total sulfur, wt%, calculated: 0.0 Silicones: None</p>
<p>PACKAGING</p>	<p>Available in 5-gallon pails, 55-gallon drums and bulk containers.</p>
<p>For additional information concerning OAK DRAW 593-LA, refer to its OSHA MSDS or contact OAK INTERNATIONAL at 1-269-651-9790.</p> <p>WARRANTY: 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>LIMITATION OF LIABILITY: 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>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</p>	

Oak International, Inc., 1160 White St., Sturgis, MI 49091
Ph. 269-651-9790 Fax 269-651-7849 www.oakinternational.com