



OAK INTERNATIONAL
Global Metalforming Fluids

OAK[®] 11-B

METALWORKING OIL

APPLICATIONS	<p>Oak 11-B lubricant is a polymeric-based expanding, bending and forming lubricant developed to meet the product and process requirements of the air conditioning and heat transfer industries.</p> <p>Oak 11-B lubricant has been chemically engineered to form copper tubing on hairpin benders, return benders, straight tube cut-offs and expanders.</p> <p>Customer will need to confirm compatibility with entire installed working unit.</p>
COMPETITIVE ADVANTAGES	<ul style="list-style-type: none">✓ Ashless ingredients ensure excellent brazing.✓ Does not require post cleaning or leave heavy deposits on machine parts or tooling.✓ Pre-tested on our machinery under "real world" working conditions.✓ Environmentally sound product contains no mineral oils, solvents or hazardous materials.✓ Non-staining to copper and aluminum.✓ Outstanding hydrodynamic and boundary lubrication to maximize formability.✓ Contains no water to promote rancidity, thereby ensuring optimum shelf life in lubricant reservoirs.

GETTING STARTED	<p>FOR INDUSTRIAL USE ONLY</p> <p>Oak 11-B lubricant is used as received and may be applied by spray, drip or brush methods.</p> <p>Add no other substances to the concentrate or mix unless approved by your OAK Representative.</p>
TYPICAL PHYSICAL AND CHEMICAL PROPERTIES	<p>Physical state: Liquid Appearance and odor: Clear, chemical Color available: Colorless Solubility in water: Insoluble Weight, lb/gal, 60°F (15.6°C): 6.8 Specific gravity, (H₂O = 1): 0.82 Viscosity SUS, 100°F: 90 Boiling point, °F (°C): Not determined Flash point, COC, °F (°C): > 435 (> 223.9) Extinguishing media: CO₂, foam, dry chemical Unusual fire & explosion hazards: None pH, concentrate: Not applicable Total chlorine, wt%, calculated: 0.0 Total sulfur, wt%, calculated: 0.0 Silicones: None VOC (%): 0</p>
PACKAGING	<p>Available in 5-gallon pails, 55-gallon drums.</p>
<p>For additional information concerning OAK 11-B, 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. 9/14/07 REV</p>	

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