



OAK INTERNATIONAL
Global Metalforming Fluids

OAK KOOL[®] 632-AF

SEMISYNTHETIC, METALWORKING FLUID CONCENTRATE

APPLICATIONS	<p>OAK KOOL 632-AF is an all purpose machining and grinding coolant for non-ferrous and ferrous metals. When added to water, OAK KOOL 632-AF forms a translucent micro-emulsion combining the cleanliness of a synthetic with the lubricity of a soluble oil coolant.</p> <p>Operations: Heavy duty machining operations as well as grinding operations requiring close tolerances and optimal surface finishes. Ideal for CNC machining centers, vertical turret lathes, screw machines and other multi-functional machine tools and will also double as a light-duty forming lubricant.</p> <p>Duty Range: Heavy duty machining.</p>
COMPETITIVE ADVANTAGES	<p>EXCELLENT LUBRICATING PROPERTIES</p> <p>HARD AND SOFT WATER STABLE</p> <p>EXCELLENT CLEANLINESS - Rejects tramp oil, provides clean parts and keeps machines clean</p> <p>FORGIVING RESIDUE - The product is easily rinsed off parts for post-machining operations</p> <p>EXCELLENT MICROBIAL CONTROL – Provides excellent bio-stability and long sump life</p> <p>EXCELLENT CORROSION CONTROL - Corrosion inhibitors eliminate part staining and prevent bi-metallic corrosion</p> <p>SUPERIOR MATERIAL AND APPLICATION COMPATIBILITY - Compatible with titanium and other exotic alloys - Can be used on ferrous and non-ferrous metals where one product is needed for a variety of jobs (may stain some copper alloys)</p> <p>SAFE – low pH formulation is easy on personnel and equipment</p>

<p>GETTING STARTED</p>	<p>FOR INDUSTRIAL USE ONLY OAK KOOL 632-AF is to be mixed with water for use (add concentrate to water).</p> <p>Use between 5.0% (1:20) and 10.0% (1:10) for machining and grinding.</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>TYPICAL PHYSICAL AND CHEMICAL PROPERTIES</p>	<p>Physical state: Liquid Appearance and odor: Clear, root beer odor Color: Amber Solubility in water: 100% miscible Weight, lb/gal, 60°F (15.6°C): 8.5 Specific gravity, (H₂O = 1): 1.02 Boiling point, °F (°C): >212 (100) Flash point, COC, °F (°C): None Fire point, COC, °F (°C): Not Determined Extinguishing media: CO₂, foam, dry chemical Unusual fire & explosion hazards: None Freezing point (or pour point), °F, (°C): 30 (-1) If frozen, thoroughly thaw and mix prior to using. pH, concentrate: 9.2 pH, 10.0% mix, typical operating conditions: 8.9 Total chlorine, wt%, calculated: 3 Total sulfur, wt%, calculated: 0.2 Silicones: Yes</p>
<p>PACKAGING</p>	<p>Available in 5-gallon pails, 55-gallon drums and bulk containers.</p>
<p>REFRACTOMETER FACTOR = 1.6 Multiply the scale reading obtained on most refractometers 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 OAK KOOL 632-AF, 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. 8/31/07 REV</p>	