BONDERITE®

Technical Product Bulletin

BONDERITE L-MR 9103
MACHINING LUBRICANT
(KNOWN AS MULTAN 9103)

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Product Description
BONDERITE L-MR 9103 is a bio-resistant, oil rejecting, true solution synthetic fluid designed for machining and grinding of ferrous alloys. Its combination of lubricity additives, detergency, low foaming and cooling properties allow it to work in light to moderate heavy machining and grinding applications. This product has been designed where lubricity, bio-resistance, oil rejection, cleanliness and cooling are critical in cast iron and steel applications.

Benefits
- High lubricity making this product versatile in many machining and grinding applications.
- Bio-resistant technology which eliminates the need for tank-side additives and Monday morning odors.
- Excellent tramp oil rejection for easy removal and increased solution longevity.
- Less product consumption due to the superb wetting properties.

Applications
Designed for use in areas where water quality or process requirements make foam difficult to control. Excellent for moderate duty ferrous machining.

Characteristics

Property	Typical Value
Appearance of Concentrate	Clear to light yellow fluid
Appearance @ 5%	Clear to light yellow solution
Recommended Conc.	5 – 10%
pH of solution (typical)	8.6
Density	8.8 lbs / gallon
Chlorine	None
Boron	None
Refractometer Factor	2.3

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Operating and Control Procedures

Recommended Use Concentrations

Operation	Concentration
Grinding	3% to 5%
General Machining	6% to 8%
Heavy Machining	8% to 10%

Refractometer Procedure

Bonderite L-MR 9103 solutions are easily checked using a standardized refractometer (see manufacturers operating instructions). Multiply the refractometer reading by 2.3 to obtain product concentration.

Titration Procedure (pH method)

Place 15 ml sample of Bonderite L-MR 9103 into a 200 ml beaker flask. Add deionized water to the 100 ml mark. Titrate with 0.1N Hydrochloric Acid (Titrating Solution 61) until a pH of 3.6 is achieved. To determine the concentration, multiply the milliliters of HCL consumed, by 0.327.

Other Information

Protect from freezing during transit and storage.

Please refer to Safety Data Sheet for detailed health and safety information.

For more detail on this product or Henkel's capabilities contact your local account representative or Customer Service via the phone number below.

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