

BONDERITE L-MR 61-3 DF

Known as Multan 61-3 DF

November 2022

PRODUCT DESCRIPTION

BONDERITE L-MR 61-3 DF provides the following product characteristics:

Technology	Lubricants
Product Type	Machining & Grinding Fluids
Application	Coolant for Machining & Grinding

BONDERITE L-MR 61-3 DF is a fully synthetic, mineral oil-free lubricant for a wide range of operations an water hardnesses.

BONDERITE L-MR 61-3 DF is suitable for grinding operations as well as for light machining processes.

The raw material package of BONDERITE L-MR 61-3 DF guarantess good lubricity and excellent corrosion protection even when used at very low concentration.

BONDERITE L-MR 61-3 DF is free of nitrites and chlorine.

Application Areas:

BONDERITE L-MR 61-3 DF is mainly used for general cutting operations on steel and cast iron. The suitability for aluminium alloys should be checked first in an individual field test.

BONDERITE L-MR 61-3 DF is good resistant against attack of fungi.

TECHNICAL DATA

(as supplied):

Concentrate:

Density, 20°C, g/cm ³ DIN 51757	~1.1
Viscosity, (20°C), mm ² /s DIN 53211	~50
(40°C)	~90
Flashpoint, °C DIN ISO 2592	>100

Emulsion:

Appearance	semi transparent
pH-Value (5 %, 20 °d-DIN-Water) DIN 51369	9.2

Corrosion protection properties:

according to DIN 51360/1	R0/S0 at 4%
according to DIN 51360/2	0/0 at 3.5%

Lubricants Reichert-Waage Steel:

5%, 1.5 kg, (mm ²)	15
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DIRECTIONS FOR USE

Preliminary Statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Concentration:

Make up concentration: 3 % to 6 % (depending on the machining operation and material)

Topping up concentration: 1 % to 5 %

Control of the emulsion:

Refractometer:

The reading in °Brix multiplied by the product factor 1.7 is equivalent to the concentration in percent.

Titration by pH:

100 mL of the emulsion are titrated down to pH 5.5 using 0.5 N HCl and an electronic pH-meter. The consumption of acid in mL multiplied by the product factor 0.26 is equivalent to the concentration in percent.

Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

Hazards identification
Transport information
Regulatory information

Storage:

Temperature, °C 5 to 40



ADDITIONAL INFORMATION

Disclaimer

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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Reference 0.1