

BONDERITE L-MR 21895

October 2019

PRODUCT DESCRIPTION

BONDERITE L-MR 21895 provides the following product characteristics:

Technology	Lubricants
Product Type	Machining & Grinding Fluids
Application	Grinding, CNC-Machining, Honing etc.

BONDERITE L-MR 21895 is a High-Performance metal working fluid which shows excellent protection against corrosion and discoloration on aluminium alloys.

BONDERITE L-MR 21895 creates a finely dispersed emulsion with a wider range of different water qualities.

BONDERITE L-MR 21895 is free of Cl- and S-containing EP-additives and Formaldehyde Releasing Agents.

The long emulsion life time of BONDERITE L-MR 21895 in combination with low topping up concentrations reduces the product consumption significantly.

The high lubricity of BONDERITE L-MR 21895 extends the tool life time and reduces the process costs.

The excellent cleaning performance of BONDERITE L-MR 21895 keeps the machine clean and reduces the maintenance cost e.g. in a following cleaning step.

BONDERITE L-MR 21895 fulfill the rules of the TRGS 611.

Application Areas:

BONDERITE L-MR 21895 is a water-miscible cutting fluid for General to heavy-duty machining of all aluminum and steel materials.

BONDERITE L-MR 21895 emulsions are stable and build a very low foaming in a water hardness between 5°dH and 200°dH.

TECHNICAL DATAConcentrate:

Density (20°C, DIN 51757)	0.971 g/cm ³
Viscosity (20°C, DIN 53211)	210 mm ² /s
Viscosity (40°C, DIN 53211)	86 mm ² /s
Refractive index (20°C)	1.434

Emulsion:

Appearance	semi-transparent
pH-value (DIN 51369)	~8.9

Corrosion protection properties:

DIN 51360-1	R0/S0 at 2%
DIN 51360-2	0/0 at 3%

Emulsion stability:

According to DIN 51367	100 %
With 3 g/L NaCl added	100 %

Lubricating effect:

Tapping Torque 4%, 8mm, 900rpm, M4	30 Ncm
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DIRECTION OF 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: 5 % to 8 % (depending on the machining operation and material)

Topping up concentration: 0.5 % to 1.5 %

Control of the emulsion:Refractometer:

The reading in °Brix multiplied by the product factor 1.3 is equivalent to the concentration in percent.

Titration:

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 0.37 is equivalent to the concentration in percent.

Splitting with acid (DIN 51368):

100 mL of the emulsion are heated up with concentrated hydrochloric acid. The reading in mL multiplied by the product factor 2.0 is equivalent to the concentration in percent.

Storage:

Temperature, °C

+5 to +40

Classification:Please refer to the corresponding **Material Safety Data****Sheets** for details on:**Hazards identification****Transport information****Regulatory information****ADDITIONAL INFORMATION****Disclaimer****Note:**

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Reference 0.0