# **Technical Data Sheet**

## Multidraw CU MF S V4

### **Product description**

- · water-miscible, semi-synthetic cooling lubricant
- · on the basis of synthetic ester
- with anionic and non-ionic surfactants
- with inhibitors
- extreme low foam formation
- stable emulsion
- protection against micro-organisms
- free of formaldehyde releasers
- · increased buffering capacity for a stable pH-value

### **Characteristics**

Density/15°C / DIN EN ISO 12185:	990 kg/m³
Viscosity/40°C / ASTM D 7042:	30 mm²/s
pH-value (10 % in distilled H2O) / DIN 51 369:	9.5
Conductance (10 % distilled water):	1600 µS/cm
Correction factor for determination of the concentration - refractometer:	1.77

### Application

**Multidraw CU MF S V4** is suitable for drawing copper wires in the intermediate and fine drawing up to finished wire diameters of 0.1mm on single and multi-wire drawing machines. The product is also suitable for tinned copper wires in the intermediate and fine drawing.

**Multidraw CU MF S V4** is characterized by its excellent lubricating performance, a very high emulsion stability as well as its optimized cleaning effect.

For continuous annealing of bare, nickel-plated or tinned copper wires of all wire diameters.

The recommended operating temperature of the emulsion is between 35 °C and 40 °C.

Filtration: Practicable with all current paper belt filters.

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#### Working concentration

Intermediate drawing:	4 - 8 %
Fine drawing:	2 - 5 %
Continuous annealing:	0.5 - 1.5 %

### Preparation of the emulsion

The concentrate dissolves to a stable emulsion by pouring it continuously into water (temperature range approx. +10 °C to approx. +35 °C) and by stirring.

### Determination of the concentration

- a) Determination of the part of the water-miscible cooling lubricants separable with acid according to DIN 51 368 (testing apparatus for drilling oil, separation by hydro-chloric acid).
- b) with refractometer: Factor 1.77

### Storage

**Multidraw CU MF S V4** is stable at temperatures above +15°C. Below 15°C, it becomes viscous or even solid; however, after a longer storage period at room temperature, it regains its original consistency and can be used further without any problems.

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