PRODUCT INFORMATION

EMULCUT 116 W

WATER DILUTABLE METALWORKING FLUID

DESCRIPTION

EMULCUT 116 W is a boron and formaldehyde free, high performance metalworking fluid for the machining of steel, cast iron and aluminium. The product is a multifunctional metalworking fluid and therefore suitable for various machining operations.

EMULCUT 116 W contains approx. 32 % mineral oil and 15 % high lubricity ester. The emulsions provide a high tool life and excellent surface finish quality due to a special raw material combination. Furthermore, the emulsions give long term stability even without formaldehyde. EMULCUT 116 W does not contain any secondary amines and nitrite. Therefore, it conforms to the TRGS 611 regulations.

BENEFITS

- free of boron and formaldehyde
- high filterability
- very good flushing performance
- long life, pH-stable emulsion
- high corrosion prevention
- suitable for a wide range of metals and applications

We recommend to make-up the EMULCUT 116 W emulsion with proprietary coolant auto-mixing equipment, alternatively add the concentrate to the water in a fast moving area of the system. Ideally the use of water with a hardness range from 20 to 130 ppm CaCO3 (2 – 8 °dH) at room-temperature should be used. The working temperature of the emulsion should be max. 40 °C.

For cleaning of the machined components we recommend a mild alkaline cleaner from our FEROCLEAN range.

TECHNICAL DATA

Boron/FRB free	✓
TRGS-611-compliant	✓
Corrosion prevention, 4 % in water with 20 °dH [356 ppm] (DIN 51360/2)	Note 0
Foam behaviour	low
Storage temperature	5 - 35 °C avoiding frost
Shelf life	observe the use by date on the container

PHYSICAL DATA

Appearance/20 °C	clear, slightly turbid, light brown liquid
Density/20 °C (ASTM D 7042)	approx. 0.960 g/cm³
Viscosity/20 °C (ASTM D 7042)	approx. 230 mm²/s
pH value/5 %/3.5°dH [62.3 ppm]/20 °C (DIN 51369)	approx. 9.9
pH value after 24 - 72 hours of use (DIN 51369)	approx. 9.2 – 9.5

FACTORS FOR CONCENTRATION DETERMINATION

acidimetric titration up to pH 4: 0.73*
acidimetric titration up to pH 7: 0.81*
Refractometer: 1.0
Acid split method: 1.4
*Method used: Titration of a 10 ml sample with 0.1 n hydrochloric acid

CONCENTRATIONS RECOMMENDED FOR USE

Drilling, turning, milling: 5 – 10 %
Reaming, sawing: 8 – 15 %
Grinding: 4 – 6 %

Only valid in combination with EC Safety Data Sheet
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