



Surface Technologies

Translation of the German Gebrauchsanleitung

Multan® 77-70

Heavy Duty Cutting Fluid

Properties:

Multan 77-70 is a watersoluble cutting fluid and forming lubricant for a wide range of operations.

To meet the requirements of severe cutting and forming operations the formulation of Multan 77-70 contains EP-additives (EP: extreme pressure). This package guarantees extremely good lubricity, even when used at very low concentrations, combined with excellent corrosion protection.

The product is easily degreased with neutral cleaners (e. g. P3-neutracare 800).

Multan 77-70 is free of nitrites and diethanolamine (acc. to German TRGS 611) and contains no chlorinated paraffines for ease of disposal.

Multan 77-70 is inhibited against attack of bacteria and fungi.

Application:

Multan 77-70 is mainly used for cutting and forming operations on steel and stainless steel. The suitability for aluminium alloys should be checked first in an individual field test.

Concentrations:

Metal removal (turning, milling, drilling, etc.)
topping up:

initial charge: 5-8 %
2-4 %

Forming, light-duty:

initial charge: 5-10 %

topping up:	5-8 %
Forming, heavy-duty:	initial charge: 20-40 %
topping up:	10-15 %

Control:

Refractometer:

Reading of the refractometer in °Brix multiplied by the product factor 1.03 gives the concentration in percent.

Titration:

100 ml of the emulsion are titrated with 0.5 n HCl down to the pH-value of 5.5. The consumption of acid in ml multiplied by the product factor 0.60 gives the concentration in percent.

Splitting with acid (DIN 51368):

100 ml of the emulsion are heated up with conc. hydrochloric acid. Reading in ml multiplied by the product factor 1.53 gives the concentration in percent.

Technical data:

Concentrate:

Appearance:	homogeneous brown fluid
Density (20 °C), DIN 51757:	1.01 ± 0.01
Viscosity (40 °C), DIN 51562:	384 mm ² /s ± 30
Flashpoint, DIN ISO 2592:	above 100 °C
Storage:	0 °C to +40 °C

Emulsion:

Appearance:	opaque yellowish-brown fluid
pH-value (6 %, DI-water), DIN 51369:	9.2 ± 0.2
Corrosion protection properties:	
acc. to DIN 51360/1:	R0/S0 at 4 %
acc. to DIN 51360/2:	0/0 at 5 %
Lubricity Reichert-Waage (5 %, 1.5 kg):	13 mm ²
Stability of the emulsion:	
acc. to DIN 51367:	100 %

The expiry date of the product is given on the packaging labels.

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Revision date: 02-07-2003