

## UNICOOL MIKRO EP

### GENERAL FEATURES:

Unicool Mikro EP is semi-synthetic emulsifying concentrate with EP content and universal application in machining and grinding of various metals. It easily mixes with water (hard and soft) producing durable, biostable, microemulsions, which are featured by extended lifetime and perfect processing features including anticorrosive features achieved at low working concentrations. Unicool Mikro EP concentrate is free of biocides or other harmful ingredients (phenols, nitrites). It is resistant to bacteria and fungi.

### APPLICATION:

Unicool Mikro EP is intended first of all to work in hard machining processes and grinding of steel, cast-iron, non-ferrous metals or for machining of very hard materials e.g. alloy steels, nimonic. It also may be used for machining of aluminium alloys. High load resistance of emulsion film strengthened by EP additives allows for achieving excellent effects in hard machining operations, good emulsion dispersion and its moistening properties allow for easy reduction of friction and removal of heat from the machining area providing cleanness to the operational environment. Recommended concentrations:

- hard grinding: 3 - 5 %,
- hard machining (turning, milling): 3 - 5 %,
- very hard machining (reaming, threading): 5 - 8 %.

### STANDARDS, APPROVALS. SPECIFICATION:

Polish National Institute of Hygiene (PZH) approval



### Physical and chemical properties:

PARAMETERS	UNIT	TYPICAL VALUES
Appearance at 20°C	-	Homogeneous, limpid, light brown to brown fluid
Mineral oil content	%	ca. 35
Kinematic viscosity at. 40°C	mm <sup>2</sup> /s	65.0
3% emulsion in 15°N water: Appearance at 20°C	-	Transparent to opalescent fluid
Corrosiveness to steel, Herbert test	-	H0
pH	-	9.2
Refractometric factor at 20°C		1.42
Lubricating properties on a four ball pressure tester, weld load	kG	126

**NOTE:**  
Physicochemical parameters listed in the table are typical values. Real values are stated in quality control certificates attached to each product lot.

