

Emulsifying oil for metalworking

EMULSIN COLOR PLUS

Semi-synthetic emulsifying oil EMULSIN COLOR PLUS is used for metalworking of ferrous and non-ferrous metals, as well as cast iron both in material removal processing and in plastic working. It contains selected additives typical of the highest grade cutting fluids such as: corrosion inhibitors, biocide, and anti-foam additives while secondary amines, chloride and sulphur are eliminated.

Not recommended for metalworking of aluminum and its alloys.

The oil is recommended for numerically controlled machine tools and conventional tools.

Shows no negative impact to the elastomers.

Characteristics:

- very good cooling properties,
- high resistance to bacteria = stability during down-time,
- easily mixable with water,
- anticorrosion protection of machines and worked elements,
- obtains washing properties,
- does not reveal negative impact on the operators during handling if the industrial safety regulations are complied with.

Recommended emulsion concentration depending on the type of working and on the type of material amounts from 3% up.

For the emulsion preparation it is recommended to use water of hardness up to 20°n.

No	Requirements	Research methods by	Unit	Value
1.	Appearance	visually		Clear, straw-coloured liquid
2.	Pour Point	ASTM D-5950	°C	-5
				5% emulsion
3.	Test of anti-corrosion protection, protection degree	PN-M-55789: 1992		H1
4.	pH	PN-C-04963: 1989		9.2
5.	Emulsion stability after 24h/20°C, 10°N water	CBA/LB/9		stable

The above given data are the typical values for a production batch, they are not included in technical specification, and they are subject to change due to continual product research and development.

Refractive index – 2,0

Application Recommendations:

Machining Type	Emulsion concentration (%)
Rolling, milling, drilling	5-10
Threading	10-15
Grinding	3-5
Plastic working	7-15

For appropriate application of cooling and lubricating emulsion made from Emulsin Color Plus it is recommended to:

- always add oil to water, and not the reverse, for proper mixing of the oil concentrate and water,
- check the concentrations periodically and verify their value,
- control the quality of water being used for making and diluting the emulsion,
- clean and disinfect the system periodically at the emulsion change.

Specifications, classifications:

ISO L-MAE

Packaging:

26kg, 180kg, 1 ton

Storage:

The products should be stored under a roof. If they are stored in the open air where they can be exposed to atmospheric conditions – rains, they should be placed in a horizontal position in order to avoid inrush of water to a container and to prevent label damaging; they should be covered with tarpaulin.

The products should not be stored at the temperature above 60°C and in the places where solar radiation is very strong or – temperatures very low, below 0°C. The expiry date is not less than 1 year if the storage conditions are satisfied.

Health, Industrial Safety and the Environment:

Information concerning safety is included in the product Safety Sheet. It contains detailed information on possible threats, warnings, first aid as well as the impact on the environment and ways of utilization of the used products.

LOTOS Oil SA and the cooperating companies do not take responsibility for misuse of the product or – the use with the violation of the precautions given. Before using the product for other than recommended purposes, seek advice in the local LOTOS Oil SA office.

The information provided in this data sheet is not intended to constitute an offer within the meaning of the Act of 23rd April 1964 - Civil Code. LOTOS Oil S.A. bears no responsibility for whatever effects of use (particularly in trade and investment decision-making) of information contained herein. Any data contained in the MSDS are typical process tolerance values and they are subject to change due to continual product research and development. Information provided in this document may undergo changes. LOTOS Oil S.A. is not responsible for the product availability.

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