

# MOL Emolin 505

## biostable metalworking fluid



MOL Emolin 505 is a universal water-miscible semi-synthetic metalworking fluid, containing boron and having an outstanding biological stability. The product contains about 25% refined mineral oil, emulsifier, corrosion inhibitor, together with friction modifiers and antiwear additives. It is recommended to use a mixing equipment for preparing the emulsion, with minimum 3% mixing rate. The concentrate is always to be added to the water during agitation. The concentration of the prepared emulsion should be checked using a calibrated refractometer. Due to its well balanced composition, containing amine and boric acid, the product is resistant to biological contamination, and a long service life can be achieved if handled properly.

Free of MBO, MBM and HPT formaldehyde donors.

Refractometer factor: 1,1. Cleanliness of the system is a determining factor in terms of the operating life of the emulsion, so it is recommended to use MOL Netsol SC system cleaner before every change. Resistance to micro organisms can be ensured by maintaining a minimum emulsion concentration of 4-5 % (V/V).

Machining	Application concentration
Grinding	4-5
Turning	5-7
Milling	6-9
Drilling	7-10

### Application



Chip forming and chipless machining of steel, alloys, light and yellow metals

Various cutting technologies (turning, drilling, thread machining, etc.)

High performance heavy-duty chip forming machining

Chip forming machining of spheroidal graphite and grey cast iron

For industrial use

### Features and benefits

Excellent stability against microbial infection

Outstanding temporary corrosion protection

Excellent lubricity

Extremely low foaming tendency

Low maintenance requirements

Long charge drain period, pleasant working environment and cost efficiency

Reduced manufacturing and surface treatment costs

Excellent surface quality and high manufacturing precision

Higher productivity, so reduced manufacturing costs

Forms a continuous lubricating film, giving a balanced cooling effect and lubricity, excellent surface quality and high production accuracy  
Highly applicable in equipment operating at high pressure

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### Features and benefits (continue)

Universal	Wide range of applicability enables reduction of the number of lubricating oils Suitable for use in both individual and central supply systems
Excellent washing properties	Excellent machined surface quality Clean machine-tool and workpieces, even with cast machining
Good hard water resistance	Forms a stable emulsion even with hard water No separation or sticky residues are formed on machines and workpieces
Ready miscibility with water	Simple and quick emulsion preparation
Excellent filterability	Reduced maintenance costs and environmental impact
Mild odour	More comfortable working environments
Free of nitrites and secondary amines	Beneficial in terms of workplace health requirements
Compatibility with soft water	Optimal foaming tendency in case of soft water (10°dH)

### Specifications and approvals

ISO 6743-7: L-MAF  
TRGS 611

### Properties

Properties	Typical values
Appearance	brown liquid
Density at 15°C [g/cm <sup>3</sup> ]	1,000
Kinematic viscosity at 40°C [mm <sup>2</sup> /s]	66
Emulsion pH value (5% (V/V) / 20 dH°)	9,4
Anticorrosion effect - Filter-paper test (5% (V/V) / 20 dH°) [grade]	0
Reichert wearing test (5% (V/V) / 20 dH°)	
- noise meter (5 % (V/V) / 20 dH°) [m]	68

The characteristics in table are typical values of the product and do not constitute a specification.

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### Storage and handling instructions

Store in the original container in dry, properly ventilated area.

Keep away from direct flame and other sources of ignition.

Protect from direct sunlight.

To preserve the original quality keep the suggested storage temperature.

During transport, storage and use of the product follow the work safety instructions and environmental regulations relating to mineral oil products.

In the concentration specified for use and in case of keeping the health safety rules, the emulsions are not harmful to human health and do not cause skin affection.

For further details please read the Material Safety Data Sheet of the product.

In the original container under the recommended storage conditions: 12 months

Recommended storage temperature: +5°C - +30°C

### Ordering information

Custom Tariff Number 34031980

#### SAP code and packaging:

13302292 MOL Emolin 505 50KG

60 l steel drum (for order only)

13302293 MOL Emolin 505 200KG

216.5 l steel drum (for order only)

#### Order booking:

Please contact your local distributor or sales partner for ordering details.