

## Oil for metalworking

### SM OIL

SM is the oil for metal machining. It is formulated upon highly refined mineral oil and a polar lubricating additive.

#### Characteristics:

The SM oil for metalworking is a ready-made fluid that is used for machining alloys of iron, light metals and non-ferrous metals at low cutting speeds, and for cutting tool point temperatures up to +120°C.

The SM oil is also designed for pull broaching and threading of non-ferrous metals and their alloys.

№	Requirements	Research methods by	Unit	Value	
				SM 20	SM 35
1.	Kinematic viscosity at 40°C	ASTM D-445	mm <sup>2</sup> /s	17-20	32-38
2.	Pour point	ASTM D-5950	°C	-10	-6
3.	Flash point	PN-EN ISO 2592	°C	160	160
4.	Corrosive effect for steel plates 100°C/3h	PN-85/C-04093		Pass	Pass
5.	Acid number	PN-67/C-04066	mgKOH/g	0.8	0.9

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.

#### Specifications, classifications:

ISO – L-MHB

#### Packaging:

1tonne, 180 kg

#### 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 3 years 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 23<sup>rd</sup> 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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