

Slow-burning hydraulic fluid

H-1 emulsifying multi-purpose oil

H-1 emulsifying multi-purpose oil is designed for preparing water and oil emulsions.

H-1 multi-purpose oil contains: highly refined mineral oil, a package of emulsifiers, a passivator of non-ferrous metals and a corrosion inhibitor.

Emulsifying concentrate H-1 is used for preparing slow-burning oil and water emulsions for power hydraulics and as cooling fluid for stationary and rail engines.

H-1 emulsifying multi-purpose oil is applied as water and oil emulsions of 2% concentration in water of hardness not exceeding 10°N.

Characteristics:

- good properties of operation as hydraulic fluid in static hydraulic systems such as hydraulic props, mechanized walling and others,
- good protective properties for hydraulic elements in contact with saline water,
- good cooling properties in cooling systems of big stationary and rail engines.
- stable and strong working emulsions.

No	Requirements	Research Methods by	Unit	Value
Concentrate				
1.	Kinematic viscosity at 40 °C max.	PN-EN ISO 3104	mm ² /s	35
2.	Pour point max.	PN-83/C-04117	°C	- 10
3.	Flash point min.	PN-82/C-04008	°C	178
	Requirements	Research Methods by	Unit	value
2,0% of oil and water emulsion made from H-1 concentrate				
1.	Microemulsion stability after 24 h at 70°C, 2.5% of corrosive liquid added	CBA/LB/9		stable
2.	Test of anticorrosion properties on steel plates	CBA/LB/23	60 °C/24 h	stable
3.	pH	PN-89/C-04963		8.7

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.

Application Recommendations:

-recommended working concentrations:

Type of work	Emulsion concentration %
As hydraulic fluid	2-4%

Other applications as protective or lubricating emulsion.	2%
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For appropriate application of emulsion made of H-1 concentrate 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, and also check bacterial contamination, which can be corrected by adding 0.15% of the preparation Grotan WS Plus to emulsion,
- control the quality of water being used for making and diluting the emulsion,
- clean and disinfect the system periodically at the emulsion change with the preparation Grotanol SR1.

Specifications, Classifications:

- ISO L-HFA

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. 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 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.

Prepared: 18.02.2008

Edition №: 2

Updating: 15.07.2010