

## Hydraulic oils

### HYDROMIL SUPER HLPD

Hydraulic oils Hydromil Super HLPD VG 15-150 are designed for application in heavy loaded drive and hydraulic control systems where humidity may occur. Hydromil Super HLPD oils are formulated on the base of deeply refined, dewaxed and hydrotreated mineral oils received from crude oil refining. The oils contain a properly selected package of zinc-free anticorrosion, anti-oxidation, antifoam and lubrication additives as well as detergent/dispersant properties.

Hydraulic oils Hydromil Super HLPD are applied in heavy loaded power transmission systems as well as drive and hydraulic control systems where humidity may occur.

#### Characteristics:

The oils formula guarantees:

- optimum protection of the lubricated elements` surface,
- high antifoam properties,
- good air release,
- excellent de-emulsifying qualities,
- unique hydrolytic stability,
- high filterability,
- cleanness of the lubrication system due to special detergent/dispersant properties that dissolve a majority of deposits and impurities in a hydraulic system keeping them in the oil till the filtration starts through the by-pass filter of the system,
- anti-wear protection and a long life of the lubrication system elements.

The oils are designed for:

- hydraulic drive and control systems,
- gears, hydraulic transmissions,
- control gears,
- gear pumps up to 25MPa,
- piston pumps up to 35MPa.

Hydromil Super HLPD oils are divided into the following viscosity classes ISO VG 15 – 150.

No	Requirements	Research methods by	Unit	Value						
				Hydromil Super HLPD						
				15	22	32	46	68	100	150
1.	Kinematic viscosity at 40°C	ASTM D-445	mm <sup>2</sup> /s	15	22	32	46	68	100	150
3.	Pour point	ASTM D-5950	°C	-33	-30	-30	-24	-24	-33	-30
4.	De-emulsifying properties	ASTM D1401	min	<20	<20	<30	<30	<30	<30	<30
5.	Viscosity index	ASTM D-2270		98	98	98	98	98	98	98

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

### Application Recommendations:

Hydraulic oils Hydromil Super HLPD can be applied in hydraulic systems requiring oils with detergent/dispersant properties and of high anti-wear qualities according to their viscosity classes. Hydromil Super HLPD oils meet the quality requirements for hydraulic oils according to ISO L-HM and can be used everywhere the OEM recommends L-HM class and a risk of humidity occurs.

### Specifications, classifications:

ISO VG 15-150

DIN HLPD (DIN 51524 cz2)

DIN CLP (DIN 51517cz3)

### Approvals:

Meet the requirements of the following hydraulic pumps Vickers, Bosch-Rexroth, Parker-Denison.

### Packaging:

17 kg, 26 kg, 50 kg, 180kg, 1tonne

### 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 3 years if the storage conditions are satisfied.

**Health, industrial safety legislation, 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 S.A. 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 S.A. 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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