

## Lubricants – Hydraulic oils

Version: **EEE/10a**

# Valvoline™ HLP 46

Hydraulic oil formulated for industrial and earth moving equipment.

Valvoline HLP 46 is a conventional hydraulic oil, formulated with high quality mineral base oils and anti-wear additives to offer solid hydraulic performance in a wide range of applications.

Valvoline anti wear hydraulic oils, meeting the DIN 51524 part 2 standard, are available in ten ISO viscosity grades (ISO 5, 10, 15, 22, 32, 46, 68, 100, 150, 320).

### Performance levels

ISO L-HM
ISO 6743-4
ISO 11 158 HM
DIN 51524/2 (HLP)
AFNOR NF E 48 603 HM
ASTM D 6158 HM
Parker Hannifin (Denison) HF-0
Parker Hannifin (Denison) HF-1/HF-2
MAG IAS P-70
Eaton Brochure 03-401-2010
Eaton Vickers I-286-S
Eaton Vickers M-2950-S
AIST (US Steel) 126, 127, 136

### Applications

As hydraulic fluids for the transmission of power and motion in all types of hydraulic systems at normal operating temperatures, as well as for the lubrication of bearings, gears and other assembly blocks in various circulating systems.

Hydraulic cranes and lifts, loaders, reach trucks, forklifts, excavators, dumpers, loading ramps, and tailboards.

Sometimes recommended for: hydraulic systems of metalworking machines, or circulation systems of industrial machinery.

### Features & Benefits

#### Long term stability

Formulated with high quality mineral base oils and specific additives to protect against corrosion, foaming and sludge forming.

Excellent hydrolytic stability in the presence of moisture provides protection against rust and corrosion.

High oxidation stability allows oxidation resistance in the presence of water, air and copper.

Efficient anticorrosion properties of non-ferrous metals (copper, brass and bronze).

#### Easy operation

Excellent filtration characteristics enable efficient oil filtration even under the most severe conditions and prevent the harmful effect of the most common contaminants such as water and calcium, which cause clogging of the filters.

Remarkable demulsive properties that allow quick water separation in the tank if it penetrates into the hydraulic system and prevent the creation of harmful emulsion and consequent damages to the oil pump and the system.

Fast air separation and absence of oil foaming ensure impeccable operation of hydraulic devices and prevent the appearance of the cavitation of the oil pump by taking care of the hydraulic system and oil performance.

## Keeping the world moving since 1866™

Serving more than 100 countries around the globe, Valvoline is a leading marketer, distributor and producer of quality branded automotive and industrial products and services. Products include automotive lubricants; transmission fluids; gear oils; hydraulic lubricants; automotive chemicals; specialty products; greases, and cooling system products.

For more information on Valvoline products, programs and services please visit [www.valvolineeurope.com](http://www.valvolineeurope.com)

## Typical properties

Typical property characteristics are based on current production. Whilst future production will conform to Valvoline specifications, variations in these characteristics may occur.

<b>Valvoline HLP 46</b>	
<b>Viscosity</b> , mm <sup>2</sup> /s @ 100 °C. ASTM D-445	7,0
<b>Viscosity</b> , mm <sup>2</sup> /s @ 40 °C. ASTM D-445	46
<b>Viscosity Index</b> ASTM D-2270	95
<b>Pour Point</b> , °C ASTM D-97	-24
<b>Specific Gravity</b> @ 15.6°C. ASTM D-1298	0,876
<b>Flash Point</b> , COC, °C. ASTM D-92	210
<b>Cu corrosion</b> , 3h/100°C, degree ASTM D-130	1a

## This information only applies to products manufactured by:

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## Health & Safety

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet <https://sds.valvoline.com/>

## Protect the environment

Take used oil to an authorized collection point. Comply with local regulations. Do not discharge into drains, soil or water.

## Storage

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.

Replaces – EEE/10