

## Lubricants – Hydraulic oils

Version: 406/02

# Valvoline™ Ultramax HLP ZF 46

*Premium zinc free hydraulic oil formulated for industrial equipment.*

Ultramax HLP ZF 46 hydraulic fluid is based on highly refined mineral oil and enhanced with a stabilized zinc free additive system for the protection of yellow metals.

Performance levels
DIN 51524 (part 2)
ISO 11158 HH, HL, HM
Bosch Rexroth RE 90 220
Cincinnati P-68, P-69, P-70
Denison HF-0, HF-1, HF-2
GM LS-2
Vickers (Eaton) I-286-S
Vickers (Eaton) M-2950-S

## Applications

For mobile and static hydraulic applications of industrial and other equipment.

Hydraulic systems in need of zinc free hydraulic oil for the protection of yellow metals.

Hydraulic systems in need of ashless hydraulic oil with environmental friendlier additives.

Sometimes recommended as air compressor oil.

## Features & Benefits

### Superior performance

The Ultramax HLP ZF 46 is formulated with premium quality mineral base oils and specially selected additives to guarantee a low pour point, excellent oxidation stability and good flow characteristics. High resistance to oxidation helps extend service life.

### Superior protection

The Ultramax HLP ZF 46 hydraulic oil has a high load-carrying capacity and provides good protection against corrosion, foaming, and sludge building. A zinc free additive system prevents wear of internal components and reduces downtime.

### Consistent viscosity

Good viscosity-temperature properties at average and low temperatures. Stable viscosity over a long period.

### Severe working conditions

Ultramax HLP ZF 46 hydraulic oil can even be used in unfavorable working conditions, like heavy industries. The product can be used in environments where an environmentally friendlier product is required.

# PRODUCT INFORMATION



## 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>Ultramax HLP ZF 46</b>	
<b>Colour</b> , ASTM D-1500	1,0
<b>Viscosity</b> , mm <sup>2</sup> /s @ 100 °C. ASTM D-445	6,8
<b>Viscosity</b> , mm <sup>2</sup> /s @ 40 °C. ASTM D-445	46
<b>Viscosity Index</b> ASTM D-2270	104
<b>Pour Point</b> , °C ASTM D-5949	-27
<b>Specific Gravity</b> @ 15.6°C. ASTM D-4052	0,875
<b>Flash Point</b> , COC, °C. ASTM D-92	210

**This information only applies to products manufactured in the following location(s):  
Europe**

## 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 <http://msds.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.

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