

## Hydraulic Oil

**ENVIROLUBE**

# HLP-HM 32, 46, 68

## Application

The EnviroLube HLP-HM range is a series of formulated hydraulic oils designed to minimise corrosion, oxidation, foaming and machinery wear for use in highly stressed gear, vane and piston type hydraulic systems where high levels of anti-wear performance are needed.

EnviroLube HLP-HM is fully compatible with the elastomer materials commonly used for static and dynamic seals, such as:

- Nitril butyl (PERBUNAN™ or BUNA N™)
- Fluorinated (VITON™/TEFLON™)
- Perfluorinated (KABREZ™)
- Polyurethane (ADIPRENE™)
- Polyester (HYTREL™)

Suitable for systems with bulk fluid operating temperatures up to 80°C and at pressures up to 10,000psi (700 bar).

## Availability

Packs            20L, 205L or Bulk  
Grades        ISO Grade 32, 46 or 68

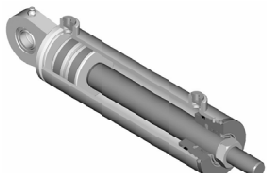
## Features

EnviroLube HLP-HM conforms to the international standard DIN Standard 51 524 Part 2 (HLP grade) and the international standard ISO 6743/4 (HM grade). Designed to minimise corrosion, oxidation, foaming and machinery wear in highly stressed hydraulic systems where high levels of anti-wear performance are needed. It is also suitable for other duties in which lubricants of high oxidation stability and lubrication performance are required, such as in lightly loaded gears, in some variable speed units and in bearings.

## Benefits

- ✓ Proven field performance
- ✓ Outstanding thermal & oxidative stability
- ✓ Superior hydrolytic stability
- ✓ Excellent demulsibility and de-aeration
- ✓ Excellent rust protection
- ✓ Low filter blockage tendency
- ✓ Excellent wet & dry filterability
- ✓ Manufactured in an ISO 9002 accredited facility

| **Designed for use in highly stressed hydraulic systems** |



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### Safety

Your safety is important to EnviroOil. This material is classified as non-hazardous according to Worksafe Australia. However, it is recommended that the handling instructions in the Material Safety Data Sheet be followed to avoid risk of injury or irritation from exposure.

### Specifications

EnviroLube HLP-HM is recommended against the following equipment specifications

DIN 51524, Part 2	ISO 6743/4	Denison HF-1, HF-2, HF-0
AFNOR NFE 48-690/691 (dry/wet)	Jeffrey No. 87	U.S. Steel 136, 127
Eaton-Vickers I-286-S (Industrial Hydraulics)	Eaton-Vickers M-2950-S (Mobile Hydraulics)	Ford M-6C32
Bosch / Racine, variable volume vane pumps	Cincinnati Machines P-68, P-69, P-70	B.F. Goodrich 0152
Lee-Norse 100-1	General Motors LH-04-1, LH-06-1, LH-15-1	Commercial Hydraulics**

\*\*Except for PM-500 series silver containing pumps which require R&O additive systems.

### Typical Characteristics

Characteristic	Method	Units	ISO 32	ISO 46	ISO 68	Benefit
Density @ 15.6C	IP160	g/cm3	0.87	0.87	0.875	Covers a broad range of operating conditions
Kinematic Viscosity @ 40C	ASTM D445	cSt	32	47	66	
Viscosity Index	ASTM D2270		106	107	99	
ISO Cleanliness	ISO 4406		17/15	17/15	17/15	ISO 17/15 will result in a gain in the average time between breakdowns, compared with a level of 22/19
Steel Corrosion	ASTM D665		Pass	Pass	Pass	Easily passes limits for protection of all metal components under thermal load
Copper - Sludge & Corrosion	ASTM D4310		Pass	Pass	Pass	
Aniline Point	ASTM D611	°C	102	102	102	Good seal compatibility.
Foam Tendency/Stability Seq II	ASTM D892	mls/mls	30/0	30/0	30/0	Reduces any air entrapment
Air Release	ASTM D3427	mins	7	7	7	
FZG Gear Test	IP 334	Failure Stage	>12	>12	>12	Excellent extreme pressure properties for protection against pitting & scuffing of lightly loaded gears

Values provided are typical and do not constitute a specification