Trusted for Generations

H.S.T.N: 38190000
REF: MKT.PDS.150
REV: 3

VICKERLUBE BIO HYF RANGE

BIO Biodegradable Hydraulics

DESCRIPTION

VICKERLUBE BIO HYF is a bio-based hydraulic fluid formulated with palm-free, renewable esters. Classified as HEES in line with ISO 15380, VICKERLUBE BIO HYF offers good oxidation stability, biodegradability, and lubricity. A bespoke additive package enhances wear protection and system efficiency, making it ideal for sustainable hydraulic applications in environmentally sensitive areas.

ENVIRONMENTAL LABELS

The VICKERLUBE BIO HYF range meets the environmental requirements of Swedish Standard SS 15 54 34.

EU Ecolabel www.ecolabel.eu

EU Ecolabel: NL/027/018

VICKERLUBE BIO HYF has been awarded the European Ecolabel for lubricants.

The EU Ecolabel is a label of environmental excellence that is awarded to products and services meeting high environmental standards throughout their life cycle: from raw material extraction, to production, distribution and disposal.

APPLICATIONS

VICKERLUBE BIO HYF is a bio-based hydraulic and circulating fluid engineered for industrial, mining, marine, and mobile applications. Its renewable formulation is purpose-built for environments where fluid loss carries contamination risk, or where proximity to waterways makes environmental compliance a critical specification requirement.

Typical applications include:

- Off-Highway / NRMM equipment (e.g. Excavators, wheel-loaders etc.)
- Forestry and forwarding equipment
- Agricultural machinery
- Mobile and fixed hydraulic plant in mining operations
- Screening and crushing plant
- Quayside cranes, container-handling equipment, and ancillary port machinery
- Mobile Plant (e.g. Elevating Work Platforms (MEWPs), including boom and scissor lifts)
- Stationary pumping and processing equipment
- General hydraulic and circulating systems

COMPATABILITY

Formulated to meet ISO 15380 seal compatibility requirements. Should not be used in systems with neoprene, butyl rubber and EPDM.

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Certified to the ISO 9001 Quality Standard and the ISO 14001 Environmental Management Standard

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METHOD OF APPLICATION

VICKERLUBE BIO HYF can be poured directly from the container, or if using a drum, please ensure clean equipment is used to transfer the product to the system.

FEATURES AND BENEFITS

• Biodegradable	Reduced environmental impact in the event of a spillage
• Renewable and palm oil free	Sustainable sourcing without deforestation linked feedstocks
• Thermal & oxidation stability	Less fluid thickening and reduced risk of system failure
• Extended fluid life	Less equipment downtime
• Improved lubricity	Reduced equipment wear and longer component life
• Strong wear protection	Extending equipment life
• Good Demulsification	Efficient Water separation
• Good Shear stability	Less viscosity loss, fewer fluid changes and prolonged pump life

PERFORMANCE DATA

Wear & Load Protection

Strong four-ball performance against standard (ASTM D4172) protects critical components, even under demanding boundary lubrication conditions.

High Load Protection

Very good anti-wear and FZG scuffing performance LS11.

Extended Pump Life

Vane pump wear results well surpass limits of ISO 20763, reflecting low metal loss under continuous running conditions. Supporting reliable pump performance and extended service life.

Filterability

Performance exceeds ISO 13357 standard requirements, meaning the fluid passes through fine filtration without forming gels or particulates that could block filters and restrict flow.

Particularly relevant to systems with tight-tolerance components where filter blockages can lead to reduced flow, pressure fluctuations, or costly downtime.

Air Handling

Air release greatly exceeds ISO 15380 requirements, allowing air to escape quickly rather than circulate through the system, preventing cavitation damage and supporting consistent control.

Foam Performance

Low foam generation meeting ISO 15380, with rapid collapse to maintain clean pump draw and minimise oxidation from air entrapment.

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Copper Corrosion

Performance meets the top rating on the ASTM D130 scale, indicating minimal reactivity with copper, bronze and brass.

Particularly relevant to components like pump bearings, bushes and valve parts, where it protects against corrosion-related wear and supports reliable long-term system performance.

Changeover

When changing to the VICKERLUBE BIO HYF range, carry-over of old fluid should be limited to 5%.

Where the old fluid has oxidised, flushing should be considered and an early filter change may be necessary due to the surface cleaning properties of the esters.

TYPICAL CHARACTERISTICS AND PROPERTIES

VICKERLUBE BIO HYF	TEST METHOD	32	46
Appearance	Visual	--- Clear & Bright ---	
Viscosity at 40°C (cSt)	ASTM D7042	32	46
Viscosity Index	ASTM D2270	200	190
Density at 15°C (g/cm^3)	ASTM D4052	0.91	0.92
Pour Point (°C)	ASTM D7346	<-40	<-40
Flash Point (°C)	ASTM D92	>200	>300
Shelf Life	3 years in original sealed containers whilst stored out of direct sunlight from the date of manufacture.		

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