

Hydraulic oil with great environmentally and mechanic properties

HE GEN II Natura is an advanced synthetic oil for use in hydraulic power and transmission systems. The environmentally accepted ester-based oil is suited for use in environmentally sensitive areas and of course also provides excellent protection and performance. HE Natura Gen II is the obvious choice when both environmentally acceptance and great mechanical properties are required.

Performance, Features & Benefits

Excellent wear protection

HE GEN II Natura has a high viscosity index (VI) and great shear stability. Which critical oil film thickness as well as excellent performance and protection of the hydraulic system. Protection and performance is also maintained for wide changes in temperature and work load.

Extended fluid life and reliable operation

The oil has very high oxidation stability, excellent rapid air separation and good filterability. The oil also counteracts sludge formation. Put together this contributes to extended oil-change intervals, reliable operation and maintains system efficiency.

Biodegradable

HE GEN II Natura is 'environmentally acceptable'- certified according to ISO 15380 HEES. It is easily biodegradable to at least 60% within 28 days and it is not bio accumulative and does not spread through the eco-system.

Renewable content

The product is made of synthetic esters and comprises a high proportion of bio based and renewable content and overpass the certification requirements.

Minimal toxicity

The oil has low toxicity to aquatic animals and plants and is also checked for substances harmful for health and environment

Applications

Forest machine hydraulic applications

HE GEN II Natura is suitable for hydraulic and fluid power transmission systems working in exposed environments in temperatures from - 30° to +85° C. The high shear stability and viscosity index (VI) provides great performance from cold start to heavy duty operation. HE GEN II Natura's high viscosity index makes it suited for Viscosity grade 46 applications even though kinematic viscosity @40°C is 36 cSt.

Hydraulic systems in warm surroundings

The high flash point at 310°C makes HE GEN II Natura suitable for use in hydraulic systems working in warm surroundings. It can also be used in cases where a hydraulic oil with both HFDU quality and low flammability is required. Fire resistant hydraulic fluids are important factors to avoid fire hazards in Forestry operations.

Environmentally sensitive areas

HE GEN II Natura is particularly suited for use in environmentally sensitive areas since it is certified as an 'environmentally acceptable' hydraulic fluid. This means when compared to conventional hydraulic mineral oil, it will have a reduced environmental impact in the event of a leak or accidental spillage.

Physical Characteristics

Properties	Method	HE Gen II Natura
ISO Fluid Type	ISO 15380	HEES
Kinematic Viscosity @40°C cSt	ISO 3104	36.0
Kinematic Viscosity @100°C cSt	ISO 3104	7.4
Viscosity index (VI)	ISO 2909	190
Density @15°C kg/m ³	ISO 12185	916
Flash Point (Cleveland Open Cup) °C	ISO 2592	310°
Pour Point °C	ISO 3016	-40°

Specifications

- Swedish Standard SS 155434, Environmental Acceptable Lubricants
- ISO 15380 HEES

Approvals

- Vickers 35VQ25A, Shearing test CEC-L45-A-98, 20h: 1.3%, OECD 301F

Health, Safety & Environment

Health and Safety

HE GEN II Natura is unlikely to present any significant health or safety hazard when properly used in the recommended applications and good standards of personal hygiene are maintained. Avoid skin contact and use impervious gloves. After skin contact, wash immediately with soap and water. Guidance on health and safety is available on the appropriate Safety Data Sheet.

Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water. If accidental spillage occurs attempt to prevent further dissemination. For decontamination use absorbents e.g. sand, universal binder or saw dust.



KOMATSU

Komatsu Forest AB
PO Box 7124, SE-907 04 UMEÅ
Tel +46 70 93 00
www.komatsuforest.com