

PRODUCT DESCRIPTION

Premium NRO 46 is a HLP performance hydraulic oil that provides excellent filterability and pump wear protection of modern and new hydraulic machines, used in either dry or wet conditions. It delivers outstanding lubrication and is thermally stable for an extended service life of hydraulic systems, in both industrial and off-road applications. Formulated with superior quality zinc containing additives to ensure effective wear protection even in the severely used hydraulic systems operating in higher pressure and temperatures.

Premium NRO 46 meets the requirements of today's hydraulic equipment where filterability, wear protection, oxidation stability, air release, foam inhibition, demulsibility, hydrolytic stability, thermal stability, rust and corrosion protections are strictly demanded.

APPLICATION

Recommended for use in modern high pressure hydraulic systems, which require anti-wear oils for effective protection against deterioration. For hydraulic systems in which axial piston, gear, vane, and other pumps are used.

WARRANTY

Premium NRO 46 meets or exceeds the OEM's warranty requirements of hydraulic systems where zinc containing additives of hydraulic oil with an ISO viscosity grade 46 is needed. TOTACHI® guarantees full compliance on the written specifications indicated on product labels.

TYPICAL TEST DATA

CHARACTERISTICS	UNITS	VALUES	STANDARDS
ISO Grade	-	46	
Kinematic viscosity at:			
40 °C	cSt	47.90	ASTM D445
100 °C	cSt	6.99	ASTM D445
Viscosity index	-	102	ASTM D2270
Color	-	L1.0	ASTM D1500
Flash point	°C	224	ASTM D92
Pour point	°C	-15	ASTM D6892
Density at 30 °C	kg/L	0.8707	ASTM D4052

CUSTOMER BENEFITS

- Equipment Durability**
 Reliable anti-wear protection even in severe operating conditions. Excellent filterability and pump wear performance.
- Excellent Water Demulsibility**
 Rapid water separation properties to help in the reduction of sludge and deposits, leading to an increased efficient and system reliability.
- Saves Cost**
 Maximizes oil drain intervals and ensures durability of hydraulic systems to cut operating downtime and untimely maintenance.

MEETS SPECIFICATIONS & REQUIREMENTS OF:

- AFNOR NF E 48-603 HM
- AFNOR NF E 48-690
- AFNOR NF E 48-691
- BOSCH REXROTH RDE-90220 (HLP)
- CINCINNATI MACHINE P-70
- DENISON HF-0, HF-1, HF-2
- DENISON T6C-020 VANE PUMP
- DIN 51 524 Part 1 (HL)
- DIN 51 524 Part 2 (HLP)
- EATON BROCHURE 694, 03-401-REV 2010
- EATON VICKERS I-286-S
- ZF TE ML 07M
- ZF TE ML 21M
- ISO 11158

Suitable for use in hydraulic systems requiring zinc containing additives.

Before using this product, ensure it is consistent with OEM's recommendations for the equipment operating conditions and customer's maintenance practices.

STORAGE AND HANDLING GUIDELINES

- Avoid exposing products to direct sunlight.
- Store in cool and dry places. Avoid exposing products to moisture.
- It is highly recommended to store drums indoors or under cover on pallets and racks.

HEALTH, SAFETY & ENVIRONMENT PROTECTION

Information on health, safety and environment protection is described in the product Safety Data Sheet (SDS). The SDS file contains details on potential hazards, precautions and first aid measures, as well as information on environmental impact and disposal of used products.

TOTACHI INDUSTRIAL CO. LTD. disclaims any liability in case the product is used with violation of these instructions and warnings or it is not used for its intended purpose. Before using product other than intended, consult your local TOTACHI® distributor.