Indol® NZ

CENEX®

Non-Zinc, Anti-Wear, Multi-Grade Hydraulic Oil
ISO 46 MV

General Description

Indol® NZ is a premium quality non-zinc ashless multi-grade, anti-wear 46 MV hydraulic oil. It is designed to exceed the performance requirements of major pump and equipment builders that require the use of a non-zinc hydraulic oil.

This oil is specially formulated with the highest quality HCG-2 base oils and has outstanding oxidation and thermal stability. The addition of the uniquely balanced non-zinc additive system provides total anti-wear, oxidation, thermal and hydrolytic stability along with rust corrosion, demulsifying capabilities and anti-foam protection.

Indol NZ ISO 46 MV is a multi-viscosity oil formulated with an extremely shear stable viscosity modifier. It provides exceptional low temperature properties enabling performance over a wide range of startup and operating temperatures, which improves hydraulic efficiency and machine productivity.

The mixing of any non-zinc hydraulic oil with hydraulic oils containing zinc or calcium should be avoided. There have been industry concerns about possible incompatibility, filter plugging and deposits.

A complete system drain of zinc-free fluid and filter change is required before any zinc containing fluid can be added or used.

Features and Benefits

- **Wear Protection:** The non-zinc anti-wear technology provides exceptional film strength resulting in longer pump life caused by minimizing wear in high speed, high pressure vane, gear and piston pumps using various metallurgies.

- **Oxidation Control:** Excellent oxidation and thermal stability reduces sludge, varnish and carbon deposits providing protection of critical hydraulic components while extending oil and equipment life.

- **Filterability:** Superior hydrolytic stability with quick water separation provides protection against deposits and filter plugging.

- **Rust and Corrosion Protection:** Outstanding rust and corrosion prevention in the presence of moisture.

- **Foam Control:** A balanced anti-foam system promotes rapid air release and minimizes foam**.**

- **Viscosity Stability:** The outstanding shear stability provides exceptional viscosity control resulting in consistent operation throughout a wide temperature range.

- **Reserve Quality:** Ability to maximize oil life and equipment performance under the toughest operating conditions.

- **Environmental Impact:** Indol NZ can help reduce environmental impact and should be considered for environmentally sensitive areas. It does not contain heavy metals which have the potential for water or soil contamination.

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Typical Applications

- Denison HF-0 (Hybrid Pump), HF-1, HF-2
- Cincinnati Lamb P-70
- Bosch- Rexroth RE 90220
- Eaton Vickers (35VQ25) I-286-S, M2950-S
- USS 127, AFNOR 48-603
- DIN 51524 HVLP, Part 2/3,
- GM LS-2, LH-0402
- ASTM D-943 Oxidation Test: > 8000 Hrs

Typical Customers

Owners and Operators of:

- Mobile/Industrial hydraulic systems calling for a non-zinc, ashless, anti-wear hydraulic oil.

- Hydraulic systems that would benefit from a multi-grade non-zinc oil with a wide operating temperature range.

Typical Properties

ISO Viscosity Grade	46 MV
Approximate SAE Grade	5W-20
API Gravity/Lbs gallon	31.4 / 7.23
Flash Point, °C /°F	232 / 448
Viscosity @ 100°C, cSt	8.4
@ 40°C, cSt	47.3
Viscosity Index	155
Pour Point, °C /°F	-48/-54
Brookfield @ -35 °C, cp	20,000
MRV@ -35 °C, cp	20,500
FZG gear test, stages	12
D-665A/B Rust Test	Pass
D-130 Copper Protection	Pass
Foam Seq. I, II, III	Pass
Dielectric Strength, KV	40*

*Dielectric Strength only in new sealed drums and 5 gallon containers from CHS Lubricant manufacturing plants.

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

Health & Safety

A complete safety data sheet is available by calling 1-651-355-8438 or visit cenex.com/sds-library.

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