

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

General Description

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

This oil is specially formulated with the highest quality HCG-2 base oils having 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, demulsibility, and anti-foam protection.

Indol NZ ISO 46MV 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 start-up and operating temperatures. This will help improve 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.

Indol NZ with its stabilized additive system will allow zinc/non-zinc hydraulic oil cross contamination during a complete system change.

Features and Benefits

- **Wear Protection:** The non-zinc anti-wear technology provides exceptional film strength resulting in longer pump life 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 Application

- 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 Customer

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 and Ultra Clean 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 www.cenex.com.