



## Univis N Series

Mobil Industrial , Canada

Hydraulic Oil

### Product Description

Univis™ N Series oils are premium high performance anti-wear hydraulic oils designed to satisfy a wide range of hydraulic equipment requirements. The products exhibit high viscosity indexes contributing to their excellent low and high temperature properties making them an excellent choice for equipment that is subjected to a wide range of start-up and operating temperatures. Univis N Series oils are formulated with good shear stability allowing their use in high-pressure high-temperature operating environments for extended periods of time. They provide long oil/filter life and optimum equipment protection reducing both maintenance costs and product disposal costs. Univis N Series oils are formulated with select high-quality base oils and a carefully selected additive system that provide very good anti-wear properties, rust and corrosion protection, good demulsibility, oxidation resistance, good anti-foam and fast air release properties. They are designed to work with systems operating under moderate conditions where high levels of anti-wear protection are needed.

### Features and Benefits

The use of the Univis N Series hydraulic oils can result in less wear and corrosion. This results in longer running periods and lower maintenance costs. Their excellent oxidation and thermal stability safely allow extended life capability while controlling sludge and deposit formation. Univis N has very good flow characteristics at low temperatures and good protection at elevated temperatures.

- High viscosity index and good shear stability maintain excellent viscosity characteristics for long periods of time
- Low pour points sustains good fluidity conditions at low temperatures
- High performance and smooth hydraulic operations derived from fast air release, very good foam control and good water separability
- Exceptional corrosion protection reduces the negative effects of moisture on system components
- Effective oxidation and thermal stability characteristics reduce deposits and improve valve performance

### Applications

- Univis N can be used in a wide variety of industrial, mobile and marine applications
- Systems where low start-up and high operating temperatures are typical
- Hydraulic systems requiring anti-wear oils
- Systems containing gears and bearings where mild anti-wear characteristics are desirable
- Systems requiring a high degree of load-carrying capability and anti-wear protection
- Applications where moisture is present and good corrosion protection is an asset
- Machines employing a wide range of components using various metallurgy in their designs

### Specifications and Approvals

| This product has the following approvals: | 22 | 32 | 46 | 68 |
|---|----|----|----|----|
| DENISON HF-0                              |    | X  | X  | X  |
| DENISON HF-1                              |    | X  | X  | X  |
| DENISON HF-2                              |    | X  | X  | X  |

| This product is recommended for use in applications requiring: | 22 | 32 | 46 | 68 |
|--|----|----|----|----|
| EATON I-286-S  |    | X  | X  | X  |
| EATON M-2950-S   |    | X  | X  | X  |

| This product meets or exceeds the requirements of: | 22 | 32 | 46 | 68 |
|--|----|----|----|----|
| DIN 51524-3:2006-09                                | X  | X  | X  | X  |
| ISO L-HV (ISO 11158:1997)                          | X  | X  | X  | X  |

### Properties and Specifications

| Property   | 22     | 32     | 46     | 68     |
|--|--------|--------|--------|--------|
| Grade  | ISO 22 | ISO 32 | ISO 46 | ISO 68 |
| Brookfield Viscosity @ -20 C, mPa.s, ASTM D2983            |        | 1740   | 3240   |        |
| Brookfield Viscosity @ -40 C, mPa.s, ASTM D2983            | 5770   |        |        |        |
| Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130      | 1B     | 1A     | 1A     | 1A     |
| Density @ 15 C, kg/l, ASTM D1298                           |        | 0.876  | 0.875  | 0.879  |
| Density @ 15 C, kg/m3, ASTM D4052                          | 0.858  |        |        |        |
| Emulsion, Time to 3 mL Emulsion, 54 C, min, ASTM D1401     | 10     | 5      | 10     | 10     |
| Flash Point, °C, ASTM D92                                  | 185    |        |        |        |
| Flash Point, Cleveland Open Cup, °C, ASTM D92              |        | 208    | 216    | 222    |
| Kinematic Viscosity @ 100 C, mm <sup>2</sup> /s, ASTM D445 |        | 6.39   | 8.19   | 11.0   |
| Kinematic Viscosity @ 40 C, mm <sup>2</sup> /s, ASTM D445  | 21     | 32     | 46     | 68     |
| Pour Point, °C, ASTM D97                                   | -60    | -48    | -48    | -42    |
| Rust Characteristics, Procedure B, ASTM D665               | PASS   | Pass   | Pass   | Pass   |
| Viscosity Index, ASTM D2270                                | 156    | 151    | 152    | 151    |

### Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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### Imperial Oil

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit [www.exxonmobil.com](http://www.exxonmobil.com)

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