



# CHEVRON CLARITY<sup>®</sup> HYDRAULIC OILS AW

## ISO 32, 46, 68

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### CUSTOMER BENEFITS

Chevron Clarity Hydraulic Oils AW deliver value through:

- **Premium performance** — Ashless formulation meets or exceeds pump manufacturer's requirements for viscosity, rust and corrosion protection, hydrolytic stability, water separability, foam inhibition, and filterability.
- **Superior oxidation stability** — Longer service life than conventional antiwear hydraulic oils or vegetable hydraulic oils.
- **Excellent antiwear properties** — Provides excellent wear protection.
- **Environmental sensitivity** — Passes the stringent acute aquatic toxicity (LC-50) test and is inherently biodegradable, minimizing long-term environmental concerns. Suitable for conventional recycling programs - unlike vegetable hydraulic oils.

### FEATURES

Chevron Clarity Hydraulic Oils AW are designed to give maximum protection to hydraulic pumps in high-performance industrial applications as well as in environmentally sensitive areas.



They are formulated with ISO SYN<sup>®</sup> base stocks and an ashless ("zinc-free") additive system that provides superior oxidation stability, water separability, foam suppression, and protection against wear, rust and corrosion.

They are designed to meet or exceed the performance requirements of conventional antiwear hydraulic oils, especially in severe, high-output applications such as axial piston pumps, while providing an additional level of safety in case of leaks or incidental discharge to the environment.

Chevron Clarity Hydraulic Oils AW are long-life lubricants, with dramatically longer TOST (oxidation stability) lives than conventional hydraulic fluids. A longer TOST life equates to longer service life, which improves the customer's bottom line. This level of oxidation stability is especially applicable in high efficiency (high speed, high temperature, high output) applications where severe stress is placed on the hydraulic fluid.

Many hydraulic systems are required to operate in environmentally sensitive areas where leaks or spills of hydraulic fluid may result in contamination of the soil or nearby waterways. Conventional antiwear hydraulic oils are formulated with metal-containing performance additives which will persist in the environment in the event of leaks. Vegetable-based hydraulic oils meet the environmental requirements, but fall short of the performance requirements.

## APPLICATIONS

Chevron Clarity Hydraulic Oils AW are designed for use in mobile and stationary hydraulic vane-, piston, and gear-type pumps.

The antiwear performance of these oils makes them especially suited for high performance industrial applications utilizing axial piston pumps where pressures may exceed 5000 psi.

The zinc-free formula makes it perfectly suited for applications involving yellow metals found in axial piston pumps.

They are well suited for applications situated in environmentally sensitive areas.

Chevron Clarity Hydraulic Oils AW have shown excellent performance in applications involving servo-valves using multimetal components.

The ashless formulation of Chevron Clarity Hydraulic Oils AW passes the acute aquatic toxicity (LC-50) criteria adopted by the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency.

Chevron Clarity Hydraulic Oils AW meet the requirements of:

- **Denison** HF-0, HF-2
- **MAG Cincinnati, Cincinnati Machine** P 68 (ISO 32), P-70 (ISO 46), P 69 (ISO 68)
- **Eaton-Vickers** for use in M-2950-S (mobile) and I-286-S (stationary) hydraulic systems. Passes Eaton-Vickers 35VQ25 pump test.

Chevron Clarity Hydraulic Oils AW is certified by **NSF** and is acceptable as a lubricant where there is no possibility of food contact (H2) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.

Chevron Clarity Hydraulic Oils AW are not compatible with zinc/calcium containing fluids, and OEM recommended lubricant change-out procedures including drain and flush requirements need to be adhered to.

Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

## TYPICAL TEST DATA

| ISO Grade   | 32          | 46          | 68          |
|---|-------------|-------------|-------------|
| <i>Product Number</i>   | 230342      | 230341      | 230340      |
| <i>MSDS Number</i>  | 6691        | 6691        | 6691        |
| AGMA Grade  | —           | 1           | 2           |
| API Gravity   | 32.8        | 31.9        | 31.8        |
| Viscosity, Kinematic<br>cSt at 40°C<br>cSt at 100°C                           | 33.6<br>5.6 | 46.0<br>6.8 | 64.6<br>8.5 |
| Viscosity, Saybolt<br>SUS at 100°F<br>SUS at 210°F                            | 173<br>45.0 | 237<br>49.0 | 334<br>54.8 |
| Viscosity Index   | 104         | 101         | 102         |
| Flash Point, °C(°F)   | 222(432)    | 224(435)    | 224(435)    |
| Pour Point, °C(°F)  | -33(-27)    | -30(-22)    | -30(-22)    |
| Oxidation Stability<br>Hours to 2.0 mg KOH/g acid number, modified ASTM D 943 | >18,000     | >18,000     | >18,000     |

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.