



# Clarity® Hydraulic Oils AW

## Anti-Wear Hydraulic Fluid

Product Data Sheet

### Customer benefits

#### Premium performance

Ashless formulation meets or exceeds major vane, piston and gear pump manufacturer's requirements for viscosity, rust and corrosion protection, hydrolytic stability, water separability, foam inhibition, and filterability.

#### Longer service life

Premium base stocks and additives give exceptional oxidation stability enables longer service life than conventional zinc-based antiwear hydraulic oils or vegetable hydraulic oils.

#### Equipment protection

Excellent antiwear properties provide protection for equipment. Zinc-free/ashless formulation is suited for applications involving yellow metals found in piston pumps.

#### Environmental sensitivity

Very low acute aquatic toxicity to both fish and invertebrates based on tests of water accommodated fractions. Ashless formulation facilitates conventional recycling programs

#### Low temperature operations

ISO 22 grade is specifically developed to ensure good low temperature fluidity and pumpability for low temperature operations as low as -40°C (-40°F).

#### Zinc-free/Ashless

Suited for applications involving yellow metals found in piston pumps.

### Applications

Clarity® Hydraulic Oils AW are designed for use in mobile and stationary hydraulic vane-, piston-, and gear-type pumps. Clarity Hydraulic Oils AW have shown excellent performance in applications involving servo-valves using multimetal components.

Clarity® Hydraulic Oils AW (ISO 32, 46, 68) are registered by NSF and are 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.

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.

### Product features:

- **Clarity® Hydraulic Oils AW** are formulated with premium base oil technology and an ashless ("zinc-free") additive system that provides exceptional oxidation stability, water separability, foam suppression, and protection against wear, rust and corrosion.
- **Clarity® Hydraulic Oils AW** 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. 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 well suited for applications involving yellow metals found in hydraulic systems.
- **Clarity® Hydraulic Oils AW** are designed to give excellent protection in mobile and stationary hydraulic vane-, piston-, and gear-type pumps and in high performance industrial applications as well as in environmentally sensitive areas.

## Typical key properties

CLARITY® HYDRAULIC OILS AW					
ISO Grade	22	32	46	68	100
Product Code	520369	520266	520267	520268	520269
Flash Point, °C	200	222	224	224	266
Pour Point, °C	-52	-33	-30	-30	-40
Viscosity (typical),					
mm <sup>2</sup> /s @ 40°C	22.6	33.6	46.0	64.6	95
mm <sup>2</sup> /s @ 100°C	5.3	5.6	6.8	8.5	13.8
Viscosity Index (min)	180	104	101	102	145

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## Performance standards

Clarity Hydraulic Oils AW meet the requirements of:

- Denison HF-0, HF-2 testing requirements of T5D (ISO 32, 46, 68)
- MAG Cincinnati, Cincinnati Machine P68 (ISO 32), P70 (ISO 46), P69 (ISO 68)
- Eaton-Vickers for use in M-2950-S (mobile) and I-286-S (stationary) hydraulic systems. Passes Eaton-Vickers 35VQ25 pump test. (ISO 32, 46, 68)
- DIN 51502:1990, HLP fluid (ISO 32, 46, 68)
- DIN 51524 (2006-04) Part 2, HLP (ISO 32, 46, 68)
- DIN 51502:1990, HVLP fluid (ISO 22, 100)
- DIN 51524 (2006-04) Part 3, HVLP (ISO 22,100)
- ASTM D6158 HM (ISO 32, 46, 68)
- ASTM D6158 HV (ISO 22,100)
- ISO 6743:1999 Part 4, HM fluid (ISO 32, 46, 68)
- ISO 11158:2009, HM (ISO 32, 46, 68)
- ISO 6743: 1999 Part 4, HV fluid (ISO 22, 100)
- ISO 11158:2009, HV (ISO 22, 100)

## ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit: [www.chevronlubricants.com](http://www.chevronlubricants.com).

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by:  
**Chevron Lubricants**  
 – Asia Pacific