

# Clarity<sup>®</sup> Synthetic EA Hydraulic Oil



Readily biodegradable high performance hydraulic oil

## Product description

Clarity<sup>®</sup> Synthetic EA Hydraulic Oil is a readily biodegradable high performance hydraulic oil that meets US EPA Vessel General Permit (VGP) requirements for environmentally acceptable lubricants. They are designed to give maximum protection in hydraulic equipment used on vessels and in environmentally sensitive areas.

## Customer benefits and product features

### Customer benefits

#### Compliant with US EPA requirements for environmentally acceptable lubricants

Meets the requirements of US EPA Vessel General Permit (VGP) for biodegradation, low toxicity and low bioaccumulation.

#### Premium performance

Ashless formulation provides excellent protection against wear of hydraulic pumps, and helps provide rust and corrosion protection, hydrolytic stability, water separability, foam inhibition, and filterability.

#### Long oil life

Outstanding ability of the synthetic base stock to withstand oxidation at high operating temperatures helps to maximise service life for the oil relative to vegetable-based readily biodegradable products.

#### Excellent low temperature pumpability

Specifically developed with high viscosity index to help provide good fluidity for low operating temperatures.

#### Zinc-free

Suited for applications involving yellow metals found in axial piston pumps.

### Product features

Clarity<sup>®</sup> Synthetic EA Hydraulic Oil is formulated with synthetic base stock and an ashless, zinc-free additive system that provides exceptional oxidation stability, water separability, foam suppression, and helps protect against wear, rust and corrosion.

Clarity<sup>®</sup> Synthetic EA Hydraulic Oil is readily biodegradable, nonbioaccumulative, and has low toxicity. In the event of a spill, the product biodegrades by more than 60% within 28 days, mitigating the impact to the environment.

## Applications

Clarity<sup>®</sup> Synthetic EA Hydraulic Oil is designed to give maximum protection in hydraulic equipment used on vessels and in environmentally sensitive areas.

It is designed for use in hydraulic systems (in accordance with the requirements under ISO 15380), HEPR in mobile and stationary hydraulic vane-, piston-, and gear-type pumps.

Chevron recommends Clarity<sup>®</sup> Synthetic EA Hydraulic Oil ISO 68 and 100 for use in marine stern tube applications.

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Product approvals, performance, and recommendations

## Performance standards

Clarity<sup>®</sup> Synthetic EA Hydraulic Oil is developed independently by Chevron to meet the requirements of:

- DIN 51524-3 (ISO 46, 68)
- ISO 15380 HEPR
- Parker-Denison (ISO 46, 68)

Clarity<sup>®</sup> Synthetic EA Hydraulic Oil 68 and 100 are approved for Stern tube applications by:

- Blohm+Voss
- KEMEL COMPANY
- Wärtsilä

Consult OEM representatives for independent verification, updates and recommendations.

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## Typical Test Data

CLARITY <sup>®</sup> HYDRAULIC OILS AW			
ISO Grade	46	68	100
Product Code	520395	520396	520397
Flash Point, °C	221	215	193
Pour Point, °C	-44	-48	-48
Viscosity kinematic,			
mm <sup>2</sup> /s @ 40°C	46.0	68.0	100.0
mm <sup>2</sup> /s @ 100°C	9.0	11.7	18.8
Viscosity Index (min)	180	170	210
Copper Corrosion	1b	1b	1b
Rust Test, Synthetic Sea Water	Pass	Pass	Pass
FZG, Fail Load Stage	12	12	12
Elastomer Compatibility Buton-N, Viton, Polyurethane	Pass	Pass	Pass
Biodegradability, OECD 301B, % in 28 days	>60	>60	>60
Aquatic Toxicity,			
Fathead minnow, OECD 203, mg/L	>10,000	>10,000	>10,000
Daphnia magna, OECD 202, mg/L	>120	>120	>120
Algae, OECD 201, mg/L	>10,000	>10,000	>10,000
Bioaccumulation	Negative	Negative	Negative

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 Global Lubricants: Asia Pacific.

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 the [Product Information Center](#).

This Product Data Sheet (PDS) was produced for the Asia Pacific region based on the best available information at the time of issue. The specific information included may not directly reflect the market or conditions, and may vary. For the most up-to-date, country-specific information, please contact your local customer service center.

Visit [Product Information Center](#) >

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