



## Mobil SHC Aware™ H Series

### U.S. EPA 2013 Vessel General Permit Compliant Hydraulic Oil

#### Product Description

Mobil SHC Aware™ H Series lubricants are high performance, anti-wear hydraulic oils for modern high pressure hydraulic systems that meet the U.S. Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) guidelines for “environmentally acceptable lubricants”. They provide excellent wide temperature range performance above and beyond the capabilities of non-synthetic environmentally acceptable oils. Mobil SHC Aware H Series oils are specially formulated from ester base stocks and provide exceptional anti-wear and film strength characteristics necessary for hydraulic systems operating under high load and high pressures.

#### Features and Benefits

- Meets US EPA 2013 Vessel General Permit requirements for environmentally acceptable lubricants
- Outstanding load-carrying and anti-wear properties which protects system components against wear and scuffing and helps provide long equipment life
- Shear stable high viscosity index help sustain component protection over a wide temperature
- Excellent thermal /oxidation stability that can help reduce maintenance downtime and costs by contributing to system cleanliness and deposit reduction, enable long oil and filter life
- Excellent demulsibility ensures ease of water removal in below waterline applications
- Good elastomer compatibility, it works well with same elastomers used with conventional mineral hydraulic oils

#### Applications

- Marine controllable pitch propellers (CPP) systems, fin stabilizers, deck equipment, hydraulic systems where spills or leakage could result in adverse environment impact
- In systems where readily biodegradable and minimally toxic fluids may be required
- Circulation systems containing gears and bearings where mild extreme-pressure characteristics are desired
- Systems containing servo-valves
- Hydraulic systems operating with oil temperatures in the range of -30C to +100C
- Marine and mobile equipment operating in environmentally sensitive areas
- Circulation systems operating under mild to moderate service conditions
- Industrial hydraulic systems where leaked or spilled fluids could get into plant effluent
- Air line oilers and some limited oil-mist generating systems

#### Specifications and Approvals

<b>Mobil SHC Aware H Series meets or exceeds the following regulatory requirements:</b>	<b>32</b>	<b>46</b>	<b>68</b>
US EPA 2013 Vessel General Permit	X	X	X

<b>Mobil SHC Aware H Series has the following builder approvals:</b>	<b>32</b>	<b>46</b>	<b>68</b>
Denison HF-1	X	X	X
Denison HF-2	X	X	X

<b>Mobil SHC Aware H Series has the following builder approvals:</b>	<b>32</b>	<b>46</b>	<b>68</b>
Denison HF-6	X	X	X
Eaton ATS-373 (35VQ25) pump test	X	X	X

## Typical Properties

<b>Mobil SHC Aware H Series</b>			
ISO Viscosity Grade	32	46	68
Viscosity, ASTM D 445			
cSt @ 40 °C	32	46	68
cSt @ 100 °C	6.00	8.20	10.37
Viscosity Index, ASTM D 2270	140	140	140
Density @ 15 °C, ASTM D4052, g/ml	0.912	0.905	0.915
FZG Gear Test, A/8.3/90, DIN ISO 14635-1, Fail Load Stage	11	12	>12
Rust Characteristics, procedure B, ASTM D 665	Pass	Pass	Pass
Pour Point, ASTM D 97, °C	-30	-30	-30
Flash Point, (min) ASTM D 92, °C	185	185	185
Biodegradability, CO2 Evolution, OECD 301 B, %	>60	>60	>60
Acute Algal Toxicity 72h EC <sup>50</sup> , OECD 201, mg/l	>1000	>1000	>1000
Acute Daphnia Toxicity 48h EC <sup>50</sup> , OECD 202, mg/l	>1000	>1000	>1000
Acute Fish Toxicity 96h LC <sup>50</sup> , OECD 203, mg/l	>1000	>1000	>1000
Bioaccumulation, OECD 117, Partition Coefficient, log KOW	<3	<3	<3

## Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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