

Key Benefits

- **Industry standard fluids, field-proven since 1984**
- **Qualified to ISO13628-6/API 17F, approved for use by all major equipment manufacturers**
- **Maximum operating temperatures up to 100°C/212°F**
- **Excellent ferrous and non-ferrous corrosion protection properties**
- **Excellent extreme pressure and anti-wear lubrication properties**
- **Resistant to microbial infection**
- **Fully compatible with Oceanic HW500P Series, HW500E Series, HW443 Series, HW700 Series & XT900**
- **Manufactured to NAS 1638/AS 4059 Class 6/6b-f or better cleanliness**
- **Free Fluid Monitoring programme ensures long service life**

Description

High-performance, water-based hydraulic fluids. Oceanic HW500 fluids are used in open and closed loop Subsea Production control systems and as industry standard fluids are specified by equipment manufacturers.

Oceanic HW500 series are compatible with each other and offer the same excellent technical performance. Fluids differ in glycol content to ensure optimal response times in all geographical regions. Variants of Oceanic HW500 fluids are also available for local/customer requirements (e.g. Oceanic HW500 P/XP/No Dye fluids).

Approvals

Oceanic HW540 is named in ISO13628-6/API 17F specification and is preferred by major equipment manufacturers.



Typical Physical Properties

	Oceanic HW510	Oceanic HW525	Oceanic HW540	Oceanic HW560
Appearance	Clear Blue Fluid	Clear Blue Fluid	Clear Blue Fluid	Clear Blue Fluid
pH	9.4	9.4	9.4	9.4
Specific Gravity @15.6°C	1.02	1.039	1.06	1.08
Kinematic Viscosity (cSt)				
-20°C (-4°F)	Solid	Solid	18	40
0°C (32°F)	3.1	4.8	7.6	12
40°C (104°F)	1.0	1.5	2.1	2.9
Pour Point	-4°C (25°F)	<-15°C (<5°F)	<-25°C (<-13°F)	-50°C (-58°F)
Freeze Point		-21°C (-6°F)	-48°C (-54°F)	
		Complies with API 6A class R,S & T	Complies with all API 6A class P,R,S & T	

For further recommendations, technical information, Health & Safety data sheets, OEM or environmental approvals, email wigansales@macdermid.com

THE CONTROL FLUID TECHNOLOGY LEADER

Oceanic HW500 Series | Issue No. 12 Date: Oct 2015 | www.macdermid.com/offshore

Environmental Information

MacDermid maintains worldwide environmental approvals and can offer Oceanic Subsea Production control fluids suitable for use in every exploration and production region around the world. The current environmental status of Oceanic HW500 fluids in your area can be obtained from our environmental specialists.

Storage

Oceanic HW500 fluids should be stored in dry conditions, ideally out of direct sunlight. Normal storage temperature range is 5 to 40°C.

Material Compatibility

Oceanic HW500 fluids contain performance additives which ensure high levels of compatibility with materials typically used in subsea production control equipment. Extensive material compatibility tests have been performed with Oceanic HW500 fluids.

Ferrous metals (cast iron, carbon steel, low & high alloy steels, stainless steels...)	Compatible
Non-ferrous metals (copper, brass, bronze and other metals and alloys*)	Compatible with alloys typically used in subsea production control equipment. Avoid Zn, Cd, Pb and Mg metals. Aluminum should be hard anodized.
Coatings and ceramic materials	Avoid porous coatings. Compatible with most ceramic parts. Check ceramic coatings
Packaging & sealing materials (elastomers and thermoplastics*)	Compatible with standard NBR, HNBR, FFKM, VMQ/FMVQ, CR, TFE/PTFE, PEEK. Some FKM & AU/EU/PU have proven to be incompatible
Umbilical hose liner thermoplastics	Compatible with Nylon 11, PE and Polyether ester copolymers
Absorbent gasket materials	Avoid cork, leather, cotton impregnated materials
Paints	Avoid painting internal surfaces Cured epoxy, phenolic and nylon based paints are satisfactory. Avoid less resistant paints as they soften. Wash spillages immediately with water
Filter elements	Polypropylene and glass fiber filter elements recommended over paper filters

* As material compatibility varies from compound to compound and supplier to supplier, consult supplier for recommendations or request specific compatibility tests.

MacDermid Offshore Solutions A Subsidiary of MacDermid Group

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