



PRODUCT DATA SHEET

ULTRA HYDRAULIC OILS

GENERAL

Ultra Hydraulic Oils are premium anti-wear lubricants developed for use in both high and low pressure hydraulic systems for industrial and mobile applications. They are designed to provide efficient power transmission and outstanding lubrication of vane, gear and piston type pumps, actuators, control valves and hydraulic system components.

Ultra Hydraulic Oils are manufactured from premium quality hydro-treated base oils, which contain lower levels of impurities, and are blended with an advanced additive package. Without these impurities, that limits the performance of conventional base oils, the use of Ultra Hydraulic Oils result in:

- Proven field performance
- Outstanding oxidation and thermal stability
- Longer lubricant life
- Superior hydrolytic stability
- Excellent rust and corrosion protection
- Anti-wear performance
- Demulsibility
- Low filter blockage tendency

KEY BENEFITS

The use of **Ultra Hydraulic Oils** would result in:

- Provision of superior anti-wear protection.
- Less downtime, reduced maintenance and longer component life.
- Minimizing of harmful sludge and emulsions.
- Longer oil service life, with reduced costs.

MAIN APPLICATIONS

- Hydraulic transmissions and control systems in mobile equipment applications.
- Machine tools and other pneumatic equipment lubricated through air line lubricators.
- Hydraulic pump applications except for older designed silver-plated pumps.
- Air compressors, speed reducers and chain drives.
- Marine winches, hatch covers, steering gears, bow thrusters and automatic controls.
- Mining equipment, including drills, loaders and shuttle cars.

PERFORMANCE SPECIFICATIONS

The **Ultra Hydraulic Oil** range of lubricants meets or exceeds the requirements for:

- Denison Hydraulics HF-0, HF-1, HF-2
- Eaton Vickers M-2950-S / I-286-S
- Fives Cincinnati P-68, P-69, P-70
- DIN 51524 Part 2 HLP Type
- ANSI/AGMA 9005-E02
- General Motors LS-2 LH-03 / LH-04 / LH-06
- AFNOR NF-E 48-603
- USS Steel 127,136
- ISO 11158 L-HM
- ASTM D6158 HM



PRODUCT DATA SHEET

TYPICAL PROPERTIES

	TEST METHOD								
ISO Viscosity Grade	ISO 3448	22	32	37	46	68	100	150	220
Kin. Viscosity @ 40°C, cSt	ASTM D445	22	32	37	46	68	100	150	220
Kin. Viscosity @ 100°C, cSt	ASTM D445	4.16	5.42	5.96	6.86	8.59	11.15	14.70	19.00
Viscosity Index	ASTM D2270	105	104	104	104	97	96	97	97
Specific Gravity 60/60°F	ASTM D1298	0.8688	0.8697	0.8709	0.8744	0.8766	0.8765	0.8854	0.8895
Pour Point, °C	ASTM D97	-30	-30	-30	-30	-30	-24	-24	-24
Closed Flash Point, °C	ASTM D93	204	204	204	210	232	238	238	238
Neutralization No.	ASTM D974	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Rust Prevention									
Distilled Water	ASTM D665A	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Synthetic Sea Water	ASTM 665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Copper Corrosion	ASTM D130	1A	1A	1A	1A	1A	1A	1A	1A
Water Separation time in mins.(@ 54°C)	ASTM D1401	10	10	10	10	10	-	-	-
(@ 82°C)		-	-	-	-	-	15	20	30
Foaming Tendency/Stability	ASTM D892								
Stage 1 ml. @ 24°C		5/0	5/0	5/0	5/0	5/0	0/0	0/0	0/0
Stage 11 ml. @ 93.5°C		10/0	10/0	10/0	10/0	10/0	25/0	25/0	35/0
Stage 111 ml. @ 24°C after Stage 11		10/0	10/0	10/0	10/0	10/0	5/0	0/0	0/0

HEALTH AND SAFETY

Ultra Hydraulic Oil is unlikely to pose any health or safety hazards when used in the recommended applications, provided good standards of personal and industrial hygiene are observed. Refer to Material Safety Data Sheet (MSDS) for further information.