

PURUS® ZINC FREE AW HYDRAULIC OILS Manufactured with highly refined base oils

- **DESCRIPTION:** PURUS® Zinc Free AW Hydraulic Oils are premium quality anti-wear hydraulic oils which are formulated using non-zinc containing additive technology. These products provide the product performance of premium anti-wear hydraulic oil, without the heavy metals which reduces concerns of many regulatory agencies. PURUS® Zinc Free AW Hydraulic Oils are non-toxic to fish and aquatic species as determined by OECD Test Method 203 and is classified as inherently biodegradable by OECD Test Method 301B.
- APPLICATIONS: PURUS® Zinc Free AW Hydraulic Oils are recommended for use in all applications calling for anti-wear hydraulic oil and meet or exceed the current and former specifications: Fives Cincinnati P-68, P-69, P-70 (obsolete), Parker (formerly Denison) HF-0, HF-1, and HF-2, Eaton E-FDGN-TB002-E, Bosch Rexroth RDE 90220 (obsolete) and 90235, DIN 51524-II (HM), ASTM D6158 (HM), ISO 11158 (HM), AIST 126, 127, SAE MS 1004 (HM), GM LS2, SEB 181222, and JCMAS P041 HK Hydraulic specification. Inherently Biodegradable and non-toxic to aquatic organisms.

Suitable for use in applications which cite former or obsolete specifications such as Fives Cincinnati P-68, P-69, P-70 and Bosch Rexroth RDE 90220.

- Excellent wear protection and rapid release of any entrained air
- Oxidation and thermal stability for long life
- Excellent rust and corrosion protection and easy filterability

TYPICAL PROPERTIES*:

ISO Viscosity Grade SAE Viscosity Grade	32 10W	46 20W	68 20W
Specific Gravity	0.864	0.869	0.873
Flash Point °F (°C)	423 (217)	444 (229)	473 (245)
Pour Point °C	-40	-37	-35
Appearance	Light Pale	Light Pale	Light Pale
Viscosity			
@ 40 °C, cSt	34.4	49.35	71.72
@100 °C, cSt	5.8	7.2	9.2
@ 100 °F, SUS	150.5	214	315
@ 210 °F, SUS	151.5	216	318
Viscosity Index	109	106	103
Gravity, °API	32.43	31.39	30.58
Oxidation, ASTM D943, hours	8500	6000	10000
Aquatic Toxicity, OECD 203	Nontoxic	Nontoxic	Nontoxic
Biodegradability in 28 days, OECD 301-B, %	34%	34%	34%
(without silicone oil)			

*Due to continual product research and development, the information contained herein is based on products purchased in the U.S. and subject to change without notification. Typical properties may vary slightly. Minor variations in product typical test data are to be expected in normal manufacturing



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