

Technical information

PETRO-CHEM BIO-ECO

Biodegradable hydraulic fluids

PC BIO-ECO are premium hydraulic biodegradable fluids environmental friendly for power systems with high temperature variations.

Products are based on synthetic esters and special additives that provides good stability over a wide range of temperatures.

This oil is recommended for mobile and stationary hydraulic systems where the product must comply with Swedish environmental standard SS 15 54 34 as a replacement for conventional mineral oils.

CHARACTERISTICS.-

	Test method	SE 15	SE 22	SE 32	SE 46	SE 68
Density @ 20 °C, gr/m ³	ISO 3675	0,91	0,91	0,92	0,92	0,92
Viscosity @ 40 °C, cSt	ISO 3104	15	22	30-35	44-50	64-72
Viscosity @ 100 °C, cSt		4	4,5	8-9	10-11	13-15
Viscosity Index	ASTM D2270	170	150	240	222	210
Pour point, °C	ASTM D97	<-45	<-44	-40	-40	-40
Flash point, °C	ASTM D93	>200	>200	260	260	270
Dry tost, hours		>200	>200	>200	>200	>200

Biodegradability, %	OECD 301 F	Readily biodegradable >80
Toxicity	OECD 201-203, 401	Non toxic
Bioaccumulation	OECD 305 D	No accumulation
Skin and eye irritation	OECD 401-402, 404-405	Not irritant
Mutagenity	OECD 471	Not mutagenic
Biological renewability, %		>80

Vane pump	Test method	Limit, max	Result
104C pump, 13.7 MPa, 1,200 min-1, 66 °C, 100 hrs	ISO 20763 ASTM D7043		
• Ring, mg		120	<2
• Vanes, mg		30	<2
35VQ25 pump, 20.79 MPa, 2,400 min-1, 93 °C, 150 hrs	ASTM D6973		
• Ring, mg		75	<2
• Vanes, mg		15	<2

BENEFITS.-

High viscosity index. Good behavior at different temperatures. Biodegradable.

.Environmental friendly. High flash point.

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