

35585 Curtis Boulevard • Eastlake, Ohio 44095 • (440) 951-8633 • (440) 951-4341 FAX

EnviroLogic® 132

Biodegradable Hydraulic Fluid

Description

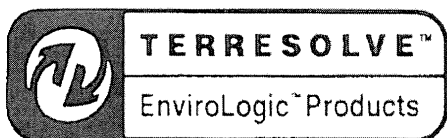
EnviroLogic® 132 Hydraulic Fluid is a readily biodegradable and non-hazardous ISO 32 viscosity grade hydraulic oil for use in general purpose hydraulic systems. EnviroLogic® 132 is based on unique biodegradable base oil technology and is a direct replacement for petroleum oil based hydraulic fluids. EnviroLogic® 132 is formulated with performance additive chemistry to exceed the requirements of petroleum hydraulic fluids. EnviroLogic® 132 is approved by The Stanley Works Co. for use in all of their hydraulic tools and meets or exceeds the requirements of virtually all major hydraulic equipment manufacturers. It also meets the requirements for Type I, II, and III hydraulic tools.

Typical Properties

Flash Point, °C	ASTM D-92	205
Fire Point, °C	ASTM D-92	262
Specific Gravity, 60°F	ASTM D-4052	0.903
Degrees API		24.5
Viscosity @ 40°C, cSt.	ASTM D-445	32.0
Viscosity @ 100°C, cSt.	ASTM D-445	7.0
Viscosity Index	ASTM D-2270	205
Pour Point	ASTM D-97	-39°C
Brookfield Viscosity	ASTM D2983	
	- 20 C cP	705
	- 25 C cP	1073
	-30 C cP	2369
	- 35 C cP	3110
Dielectric kV	ASTM D-877	45

Performance Properties

Foam, Sequence I, II, III	ASTM D-892	Pass
Copper Corrosion, 3 hours @ 100°C	ASTM D-130	1a
Hydrolytic stability, Copper loss / appearance/ NNA	ASTM D-2619	0.06 / 1b / 0.11



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Performance Properties (cont.)

Rust, ASTM D-665 A (Distilled Water)	Pass
Rust, ASTM D-665 B (Synthetic Sea Water)	Pass
Demulsibility ASTM D-1401 oil / water / emulsion (minutes)	40-40-0 (10)

Wear Performance

Four Ball Wear, ASTM D-4172 1 hr., 167°F, 1800 rpm, 40 kg., scar mm.	0.36
Timken Wear, ASTM D-2782 OK Load, lbs.	50
Hydraulic Pump Test, ASTM D-2282 mg. wt. loss, ring and vanes	3.4

Oxidative Stability

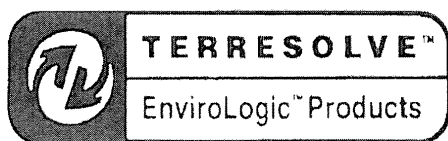
Oxidative Stability, ASTM D-2272 RBOT, min. to 25-psi loss	80 - 100
Static Oxidation Test 168 hrs. @ 150°C Condition of beaker	clean

Biodegradability

CEC-L-33-T-82	94%
ASTM D5864	>60%



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Performance Properties (cont.)

Ecotoxicity

Fathead minnow, 96h LC50, ppm	>10,000
Daphnia magna, 48h EC50, ppm	>10,000
Sludge respiration inhibition, EC50, ppm	>10,000
Algae EC50, ppm	100 – 1000

Pump Performance

Vickers 35VQ25 Pump (3000 psi, 2400 rpm 93.3o C)	Pass
Total Ring & Vane Weight Loss (mg)	
First 50h Test	8.0
Second 50h Test	11.0
Third 50h Test	8.0
Vickers V-104C Pump (2000 psi, 1200 rpm 79.4o C)	Pass
Total Ring & Vane Weight Loss (mg)	
100 hours	4.0
Denison T-5D Vane	
Total weight loss (2000 psi, 93.3o C, 100h)	Pass

Seal Compatibility

Buna	Pass
Neoprene	Pass
Viton	Pass

Compatibility with Select Hydraulic Fluids (4 Weeks)

Biodegradable Competitor "T" stored @ 100° F	Pass
Biodegradable Competitor "T" stored @ -5° F	Pass



"Solutions for a Greener World"

Petroleum Hydraulic Fluid stored @ 100° F
Petroleum Hydraulic Fluid stored @ -5° F

Pass
Pass



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