



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

EnviroLogic[®] 122

Biodegradable Hydraulic Fluid

Description

EnviroLogic[®] 122 hydraulic fluid is a readily biodegradable and non-hazardous ISO 22 viscosity grade hydraulic oil for use in general purpose hydraulic systems. EnviroLogic[®] 122 is based on unique biodegradable base oil technology and is a direct replacement for petroleum oil based hydraulic fluids. EnviroLogic[®] 122 is formulated for high anti-wear performance, excellent water separation, low foaming and air release characteristics, excellent corrosion and rust protection, and high oxidative stability for long fluid use. It also has a high viscosity index and will permit fluid operation over an extremely broad temperature range. EnviroLogic 122 will meet or exceed the performance of petroleum hydraulic fluids and will meet the requirements of virtually all major pump manufacturers.

Typical Properties

Flash Point, °C	ASTM D-92	>190
Specific Gravity, 60°F 0.86	ASTM D-1122	
Viscosity @ 40°C, cst.	ASTM D-445	22
Viscosity @ 100°C, cst.	ASTM D-445	5
Viscosity Index >180	ASTM D-2270	
Pour Point	ASTM D-97	-36°C
Dielectric kV	ASTM 877	45

Performance Properties

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



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

EnviroLogic[®] 122

Biodegradable Hydraulic Fluid

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	300
Static Oxidation Test 168 hrs. @ 150°C condition of beaker	clean

Biodegradability

CEC-L-33-T-82	94%
Modified Sturm, OECD 301B	61%



"Solutions for a Greener World"



EnviroLogic[®] 122

Biodegradable Hydraulic Fluid

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)

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)

Total Ring & Vane Weight Loss (mg)

100 hours

4.0

Denison T-5D Vane

Total weight loss

Pass

(2000 psi, 93.3o C, 100h)

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



"Solutions for a Greener World"