



LUBRICANTS



# Product Data Sheet

## EcoHarmony Ultra Dielectric Hydraulic Fluid

### *Environmentally Friendly, Non-Conductive Fluid for Sensitive Areas*

Biodegradable biosynthetic formula designed specifically for use in hydraulic equipment operating over a wide range of temperatures and where an oil with high dielectric (>35 kV) insulating property is required. Applications include power utility aerial buckets, mobile or stationary hydraulic systems, or other equipment where electrical insulating safety is required. These biobased hydraulic fluids are formulated to perform in high and low-pressure hydraulic systems that require anti-wear (AW), anti-rust, anti-oxidation, antifoam, and demulsibility properties. The super high viscosity index of the **high oleic base stocks (HOBS)** naturally improves the thermal shear stability of the formula and increases load capacity. They provide additional fluid value at the higher temperatures, which is a performance benefit over lower VI products of the same ISO viscosity. The HOBS's extremely low volatility increases the flash and fire safety features in the formula. They are formulated to provide seal conditioning for longer seal life and to reduce oil leakage from the system. They are compatible with the same seals, filters, materials, and components that are designed to operate on petroleum oil-based formulations. An environmentally friendly, zinc-free additive system has been developed to meet or exceed high pressure pump requirements.

### Features and Benefits

- ASTM D-5864 Aerobic Aquatic Biodegradation
- OECD 301 (Readily)
- USDA Bio-preferred
- EPA EAL VGP Compliant
- Excellent cold temperature pumpability
- Exceeds OEM high pressure pump requirements

### Applications

- Mobile or stationary hydraulic systems
- Equipment where electrical insulating safety is required
- Power utility aerial buckets, cherry pickers, firetruck snorkel



1-800-566-4853



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## Typical Properties

ISO Viscosity Code	Test Method	ISO 22	ISO 32	ISO 46	ISO 68
Product ID		320030	320032	320034	320036
Viscosity cSt @ 40°C	ASTM D445	20.7	31.1	44.5	64.2
Viscosity cSt @ 100°C	ASTM D445	5.2	6.9	9.4	12.2
Viscosity Index	ASTM D2270	196	192	201	191
Brookfield Viscosity @ -35°C	ASTM D2983	3,350cP	4,500cP	6,200cP	12,000cP
Foam Sequence I, II, III (10 min)	ASTM D892	<30/0 Foam	<30/0 Foam	<30/0 Foam	<30/0 Foam
Water Separability, minutes to pass @ 130°F	ASTM D1401	40/40/0 <10 minutes	40/40/0 <10 minutes	40/40/0 <10 minutes	40/40/0 <10 minutes
Flash Point, COC	ASTM D92	211°C	239°C	240°C	245°C
FZG, pass load, ISO 14635-1	Din 51354	11	12	12	12
Pour Point	ASTM D97	-50°C	-46°C	-40°C	-36°C
Four Ball Wear, 40Kg, mm	ASTM D4172	0.3 – 0.4	0.3 – 0.4	0.3 – 0.4	0.3 – 0.4
Rust Test A&B	ASTM D665	Pass	Pass	Pass	Pass
RPVOT, (minutes)	ASTM D2272	>400	>400	>400	>350
**Dielectric Breakdown Volt, kV	ASTM D877	>47	>54	>47	>45
Biodegradation Classification	ASTM D5864	Ultimate PW1	Ultimate PW1	Ultimate PW1	Ultimate PW1
	OCED 301B	Readily	Readily	Readily	Readily
Environmentally Friendly	ISO 15380	Yes	Yes	Yes	Yes

*These properties are typical of current production, minor variations are to be expected in normal manufacturing.*

*\*\* Dielectric strength is extremely sensitive to humidity and contamination. Once the containers are opened, the dielectric strength cannot be expected to remain at its original value. Containers should be kept tightly sealed and stored in a dry environment.*

EcoHarmony Ultra Dielectric Hydraulic Fluids meet the Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) guidelines for Environmentally Acceptable Lubricants (EALs) and should be used in hydraulic systems where LOW TOXICITY, BIODEGRADABILITY and NON-BIOACCUMULATION properties are required. They exceed the acute toxicity (LC-50 / EC-50 >1000 ppm) criteria adopted by the US Fish and Wildlife Service and the US EPA.

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