



PREMIUM ECO HT-E HYDRAULIC FLUIDS

Introduction

Petro-Canada Premium environmentally friendly ECO HT-E fluids are specially designed anti-wear hydraulic fluids. They are intended for outdoor, year-round use in heavy duty hydraulic systems operating in wide extremes of temperature and in environmentally delicate areas. Premium ECO HT-E fluids are hydraulic fluids formulated with special synthetic esters and Petro-Canada's unique synthetic base fluids.

Premium ECO HT-E fluids utilize special anti-wear additives that do not contain toxic heavy metals. In addition to this fact, the biodegradability of the special base oils make these products particularly well suited for hydraulic applications in environmentally sensitive locations.

Features and Benefits

- **Readily biodegradable**
- **Minimize occurrence of waste water contamination by heavy metals**
- **Non-toxic and have a very low odour**
- **Wide temperature operation**
 - Hydraulic systems can start up at temperatures as low as -30°C
 - Provides superior lubrication of hydraulic components at high operating temperatures
 - Unlike vegetable oils, does not gel over time at moderately low temperatures

- **Outstanding oxidation and thermal stability compared to competitive vegetable oil and unsaturated ester based oils**
- **Superior anti-wear protection**
- **Superior rust and corrosion protection**
- **Excellent water separability and hydrolytic stability compared to full ester based products**
- **Excellent resistance to foaming**
- **Excellent air release performance**
- **Miscible with both ester based and solvent refined mineral products as well as polyalphaolefin (PAO) based formulations.**

Applications

Petro-Canada Premium ECO HT-E hydraulic fluids are formulated for equipment used in woodlands, construction, drilling, marine and mining operations, as well as industrial manufacturing plants.

Premium ECO HT-E surpasses both the Eaton-Vickers 105C and 35VQ25 hydraulic pump tests. It also achieved a passing load stage of 11 in the FZG rig test.

Premium ECO HT-E may be used in systems equipped with fine porosity filters down to 5 microns without additive loss or filter plugging.

Premium ECO HT-E fluids meet the Swedish Green List requirements for biodegradability.

What is the HT difference?

Petro-Canada starts with the patented HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



Typical Performance Data

PROPERTY	ASTM TEST METHOD	PREMIUM ECO HT-E HYDRAULIC FLUID	
		32	46
Density (Kg/L @ 15°C)	ASTM D4052	0.869	0.883
Water Separation (minutes)	ASTM D1401	20	25
Foam (ml)	ASTM D892		
Sequence 1		20/0	20/0
Sequence 2		30/0	50/0
Sequence 3		30/0	20/0
Recommended Low Temperature Operating Limit		-30°C	-20°C
Flash Point, COC, °C	ASTM D92	197	197
Pour Point, °C	ASTM D97	-42	-42
Kinematic Viscosity	ASTM D445		
cSt @ 40°C		32	46
cSt @ 100°C		6.8	9.0
Viscosity Index	ASTM D2270	176	182
Viscosity at 100°C after shearing	DIN 51350, Part 6	Shear Stable	Shear Stable
Air Release at 50°C, minutes	ASTM D3427	6.0	6.0
Baader Test, 110°C, 72 h Viscosity Increase	DIN 51554-3	2%	2%
Rust A & B, 24 hr.	ASTM D665	Pass	Pass
Copper Corrosion, 3h 3h at 100°C	ASTM D130	1a	1a
Biodegradability %	OECD 301B	64	72
	CEC L-33-A-93	86	81

The values quoted above are typical of normal production. They do not constitute a specification.

Health and Safety

When used as directed, Petro-Canada Premium ECO HT-E has no adverse effects on health provided it is used as directed. To obtain Material Safety Data Sheets (MSDS), contact one of our TechData Info Lines.

TechData Info Lines

If you would like to know more about Petro-Canada Premium ECO HT-E Hydraulic Fluids, or any other product in our complete line of quality lubricants, please contact us at:

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