

ECOSE[®] HT FLUID TO-4

ECOSE[®] HT Fluid TO-4 is premium quality hydraulic/transmission and drive-train fluid containing additive technology that meets or exceeds the Caterpillar TO-4 specification requirements for use in off-highway equipment. These fluids can also be used in Allison transmissions, torque converters, and hydraulic systems requiring an Allison C-4 fluid. **ECOSE[®] HT Fluid TO-4** provides excellent protection of gears and offers superior thermal stability. They are formulated to give smooth transmission power transfer under high horsepower conditions. The additive technology utilized has been tested and proven in all makes and models of equipment requiring TO-4 performance and is supported by years of trouble free operation.

FEATURES AND BENEFITS:

- Excellent anti-wear protection to critical components
- Good fluidity at low ambient temperatures
- Outstanding oxidation stability, foam resistance and rust control
- Superior friction characteristics which eliminates excessive brake noise
- Excellent shear stability to maintain viscosity over the life of the equipment
- Improved friction and anti-wear performance compared to TO-2 fluids for longer equipment life

APPLICATIONS:

Formulated to meet the performance requirements of:

- | | |
|-------------------------------------------------|-------------------|
| • Komatsu KES 07.868.1 Powershift Transmissions | • Eaton |
| • Komatsu Micro-Clutch – all grades | • Komatsu Dresser |
| • Allison C-4 SAE 10W and 30 grades | • Dana Powershift |
| • Caterpillar TO-4, CF/TO-2 – all grades | |
| • ZF TE-ML03 | |
| • ZF TE-ML07F | |

ECOSE[®] HT Fluid TO-4 is designed for use in powershift, direct drive transmissions, winches, and final drives of all new Caterpillar equipment, which require the use of a TO-4 fluid. It is also recommended for the transmissions and final drives of all older Caterpillar equipment which require a TO-2 fluid. Additionally, this product is recommended for transmissions, drive trains, and hydraulic systems in off-highway equipment of various manufacturers that recommend the use of a TO-4 fluid. The SAE 10W and SAE 30 grades can be used in applications that specify the use of an Allison C-4 fluid.

SELECTION:

Follow equipment manufacturer recommendations for appropriate viscosity grade.

AVAILABILITY:

ECOSE® HT Fluid TO-4 is available throughout Nu-Tier Brands' marketing area. Your Nu-Tier representative can provide specific information. Need additional information? Call Nu-Tier Brands @ 1-877-771-LUBE (5823) or visit Nu-tierbrands.com

ECOSE® HT Fluid TO-4**Typical Properties**

SAE Grade		10W	30	50
Product Code	Test Method	531910	531930	531950
Viscosity, cSt @ 40°C	ASTM D-445	35	85.0	220
Viscosity, cSt @ 100°C	ASTM D-445	6.1	10.5	20.0
Brookfield Apparent Viscosity @-35°C	ASTM D-2983	40,000	N/A	N/A
Viscosity Index	ASTM D-2270	122	106	105
Color	ASTM D-1500	L3.0	L3.5	4.0
Pour Point, °F	ASTM D-5949	-38	-15	-5
Flash Point, °F	ASTM D-92	405	425	465
Gravity, API	ASTM D-4052	29.5	29.0	25.5
Density, lbs/gal	Calculated	7.318	7.341	7.505