



# Product Bulletin

## GULF HT FLUID TO-4

**Gulf 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. **Gulf 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
- Komatsu Micro-Clutch – all grades
- Allison C-4 SAE 10W and 30 grades
- Caterpillar TO-4, CF/TO-2 – all grades
- ZF TE-ML03
- ZF TE-ML07F
- Eaton
- Komatsu Dresser
- Dana Powershift

**Gulf 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:**

**Gulf HT Fluid TO-4** is available throughout Gulf's marketing area. Your Gulf representative can provide specific information. Need additional information? Call Gulf @ 1-800-566-Gulf (4853) or visit [Nu-tierbrands.com](http://Nu-tierbrands.com)

**Gulf HT Fluid TO-4****Typical Properties**

<b>SAE Grade</b>		<b>10W</b>	<b>30</b>	<b>50</b>
Product Code	<b>Test Method</b>	331910	331930	331950
Viscosity, cSt @ 40°C	ASTM D-445	35	101	220
Viscosity, cSt @ 100°C	ASTM D-445	6.1	11.5	20.0
Brookfield Apparent Viscosity @ -35°C	ASTM D-2983	40,000	N/A	N/A
Viscosity Index	ASTM D-2270	122	101	105
Color	ASTM D-1500	L3.0	L3.5	4.0
Pour Point, °F	ASTM D-5949	-38	-27	-5
Flash Point, °F	ASTM D-92	405	425	465
Gravity, API	ASTM D-4052	29.5	27.4	25.5
Density, lbs/gal	Calculated	7.318	7.415	7.505