



Product Bulletin

GULF HT FLUID TO-4

Gulf HT Fluid TO-4 is premium quality transmission, drive-train, and hydraulic fluids 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.

FEATURES AND BENEFITS:

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 and is supported by 20 years of trouble free performance with no field service problems. Additionally, these oils provide:

- 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:

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.



AMERICAN REFINING GROUP, INC.

Master Distributor of Gulf Lubricants • 77 North Kendall Avenue • Bradford, Pennsylvania • 16701
Phone: 814.368.1200 • Fax 814.368.1219 • www.gulflubricants.net • ISO 9001:2008

SELECTION:

Gulf HT Fluid TO-4 is available in three viscosity grades – 10W, 30, and 50 as defined by the Society of Automotive Engineers (SAE). Follow equipment manufacturer recommendations for appropriate viscosity grade.

AVAILABILITY:

Gulf HT Fluid TO-4 is available throughout Gulf's marketing area. Your Gulf representative or Gulf jobber can provide specific information. Need additional information? Call Gulf @ 1-800-566-Gulf (4853).

Gulf HT Fluid TO-4 - Typical Properties

SAE Grade		10W	30	50
Product Code	Test Method	331910	331930	331950
Viscosity, cSt @ 40°C	ASTM D-445	45.9	93	188.8
Viscosity, cSt @ 100°C	ASTM D-445	7.10	10.50	17.25
Viscosity, SUS @ 100°F	ASTM D-2161	248	485	995
Viscosity, SUS @ 210°F	ASTM D-2161	50	62.1	89.2
CCS, cP @ -25°C	ASTM D-5293	7,000 (max)	N/A	N/A
Viscosity Index	ASTM D-2270	110	102	98
Color	ASTM D-1500	4.0	5.5	7.5
Pour Point, °F (°C)	ASTM D-5949	-33 (-36) (max)	-17 (-27) (max)	-0.4 (-18)
Flash Point, COC, °F (°C)	ASTM D-92	390 (198)	425 (218)	465 (240)
API Gravity, 60°F	ASTM D-1298A	30.0	27.6	26.4
Density, lbs/gal (g/L)	Calculated	7.30 (875)	7.41 (888)	7.46 (894)