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Product Data Sheet (PDS)



GP SYNCROGEN MTF SAE 30 TO-4 **Published By: Quality**

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SYNCROGEN MTF TO-4 Fluids are specifically formulated SAE 30 oils designed to meet Caterpillar's latest Transmission and Drive Train Lubricant specification. TO-4 supersedes and replaces Caterpillar TO-2 requirements. TO-4 provides improved clutch life when compared to the previous TO-2 Fluid along with improved control of gear wear in SAE 30 for transmissions, gear boxes, and final drive trains. TO-4 has outstanding hydraulic oil stability and allows protection against high-pressure pump wear.

PERFORMANCE STANDARD:

SYNCROGEN MTF TO-4 meets and exceeds the following specifications:

- Allison C-4 (SAE 30)
- Allison TES 439
- Caterpillar TO-4
- Komatsu KES 07.868.1
- Tremac/TTC
- Euclid

FEATURES & BENEFITS:

• Frictional performance and material Compatibility

- Highly consistent and reliable friction performance when used with the advanced metallic and non-metallic materials found in modern systems. Minimal clutch slippage, smooth and quiet brake operation, and trouble free transmission operation.

• Anti-wear protection

- The Long term anti-wear protection to gears and bearings is assured by the inclusion of special anti-wear additives.

Low temperature characteristics

- Formulated to meet low temperature viscosity and fluidity requirements, providing superior protection during start-up and low operating temperature conditions.



• Optimum mechanical performance and long oil life

- Wide-ranging protection for critical components, such as bronze friction discs in powershift transmissions and gears in final drives and differential units.

Oxidation stability

 Contains inhibitors to control oxidation and deposit formation. Protects both ferrous and non-ferrous metals from corrosion. Suppresses
Foaming with improved flow properties at low temperatures enhances efficiency.

APPLICATIONS:

SYNCROGEN MTF TO-4 is recommended for use in heavy duty off-highway equipment.

- Powershift Transmissions
- Final drives
- _ Oil immersed brakes
- _ Hydraulic systems

TECHNICAL DATA

Sr. No	Characteristics	Test Method	SAE 30
01	Appearance	VISUAL	B & C
02	Density @ 15 C, g/ml	ASTM D-4052	0.880
03	Viscosity @ 40 C, cSt	ASTM D-445	74.5
04	Viscosity @ 100 C, cSt	ASTM D-445	11.5
05	Viscosity Index	ASTM D-2270	147
06	TBN, mg KOH/gm	ASTM D-2896	8.4
07	Flash Point, COC, C	ASTM D-92	236
08	Pour Point, C	ASTM D-97	-30



Health and Safety:

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application, following the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.