



## PowerDrive® Synthetic All Season TO-4 Fluid

PowerDrive Synthetic All Season TO-4 Fluid is a premium quality, synthetic, multifunctional fluid developed for use in transmissions, final drives and hydraulic systems of off-highway equipment where a fluid meeting Caterpillar TO-4 performance requirements is specified. It is a multigrade fluid particularly recommended for equipment operating in very cold temperatures as well as year-round service in most climates.

PowerDrive Synthetic All Season TO-4 Fluid is formulated with synthetic polyalphaolefin (PAO) base stocks and state-of-the-art additive technology that reduces deposits on critical parts, provides improved yellow metal protection, and increases load-carrying capacity for enhanced performance and more reliable operation. Its carefully optimized frictional properties prevent clutch slippage for smoother, more consistent transmission operation and also provide improved wet brake performance. The synthetic base stocks provide improved low-temperature performance for easier starting in frigid climates and better thermal stability at high temperatures for extended lubricant life under severe operating conditions.

### **Applications**

- Powershift transmissions, hydrostatic transmissions, torque converters, final drives and hydraulic systems of Caterpillar, Euclid, Komatsu and other off-highway construction and mining equipment
- Heavy-duty automatic transmissions where the OEM specifies an Allison C-4 quality fluid
- Heavy-duty manual and semi-automatic transmissions in trucks and buses where the OEM specifies a Caterpillar TO-4 quality fluid or a heavy-duty engine oil

**CAUTION:** Refer to the OEM recommendations for recommended temperature ranges.

PowerDrive Synthetic All Season TO-4 Fluid meets or exceeds the requirements of:

- Caterpillar TO-4, TO-2<sup>(1)</sup>

<sup>(1)</sup> Obsolete specification.

**Synthetic  
Multigrade  
Caterpillar TO-4  
Fluid For  
Off-Highway  
Equipment**

### **CONTACT INFORMATION**

**Phillips66  
Lubricants.com**

U.S. Customer  
Service:  
**1-800-368-7128**

Technical Hotline:  
**1-877-445-9198**

International  
Customer Service:  
**1-832-765-2500**

E-mail address:  
**lubricants@  
p66.com**



### Features/Benefits

- Synthetic formulation for enhanced performance in arctic temperatures
- Well-balanced frictional properties for smooth and efficient clutch operation
- Outstanding oxidation resistance and thermal stability for long fluid life
- High load-carrying capacity for protection of final drive gear sets
- Excellent deposit control and wear protection
- Protects yellow metals against corrosion
- High shear stability
- Compatible with a wide variety of seals and friction materials
- Excellent low-temperature properties for easier starting at low ambient temperatures
- Good foam resistance
- Suitable for year-round use in most climates

### PowerDrive® Synthetic All Season TO-4 Fluid

#### Typical Properties

<b>SAE Grade</b>	<b>5W-30</b>
Specific Gravity @ 60°F	0.854
Density, lbs/gal @ 60°F	7.11
Color, ASTM D1500	2.0
Flash Point (COC), °C (°F)	260 (500)
Pour Point, °C (°F)	-53 (-63)
Viscosity, Brookfield	
cP @ -40°C	27,700
Viscosity, Kinematic	
cSt @ 40°C	59.7
cSt @ 100°C	10.3
Viscosity Index	162
Total Base Number (TBN), ASTM D2896	7.6
Zinc, wt %	0.110

### Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3apps.phillips66.com/NetMSDS>.

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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