



UNIVERSAL TRACTOR OILS

ADDINOL FLUID TO-4 SAE 10W, 30, 50

PRODUCT DESCRIPTION

ADDINOL Fluid TO-4 SAE 10W, SAE 30 and SAE 50 are based on high quality mineral oil raffinates, which are blended with a special additive combination. The higher serviceability compared to Caterpillar TO-2 as well as ATF oils and universal tractor oils is characterised by an improved friction and wear protection behaviour as well as ageing stability.

APPLICATION

- Particular suitability for Caterpillar construction machines of the latest generation
- Excellent applicability for powertrains, power shift clutches, wet brakes and hydraulic systems of construction machines and heavy off-road vehicles like:
 - Wheel loader
 - Earth mover
 - Dumper
 - Container elevating vehicles
 - Roll on / Roll off pull tractors
 - Airport pull tractors
 - Shunting vehicles

SPECIFICATIONS / APPROVALS

ADDINOL Fluid TO-4 SAE 30 is approved by:

- ZF000511: ZF TE-ML 03C, 07F

The products meet and surpass the requirements of:

- API GL-4 and CF
- Caterpillar TO-4
- Allison C-4
- Komatsu KES 07.868.1

DELIVERY

Delivery preferable in drums and 20 l cans.

PLEASE NOTE

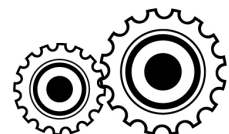
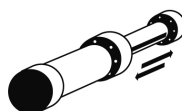
Universal transmission fluids, which meet the requirements of Caterpillar TO-4, must not be used as engine oils!

CHARACTERISTICS

- Excellent friction and wear protection behaviour
- Very high ageing stability
- Good cold flow properties
- Outstanding corrosion protection against steel and non-ferrous metals
- Compatible towards sealing material

ADVANTAGES AND BENEFITS

- Very good protection of highly loaded machine elements
- Maximum oil service life in latest aggregates
- Outstanding suitability for the application at low and varying temperatures
- Very good protection of machine parts
- Increase of the reliable operation of the machine parts by high resistance against seal wear





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SPECIFICATIONS AND TYPICAL PARAMETERS

Feature	Test condition / unit		TO-4 SAE 10W	TO-4 SAE 30	TO-4 SAE 50	Method acc. to
Approvals				ZF000511: ZF TE-ML 03C, 07F		
API			GL-4, CF	GL-4, CF	GL-4, CF	
SAE grade			10W	30	50	J 306
Density	at 15°C	kg/m ³	865	885	897	DIN 51757
Kinematic viscosity	at 40°C	mm ² /s	30	85	200	ASTM D 7042
	at 100°C	mm ² /s	5.7	10.5	18.3	
Dynamic viscosity	at -35°C	mPa*s	20.000	--	--	DIN 51398
	at -25°C	mPa*s	--	35.000	--	
	at -15°C	mPa*s	--	--	80.000	
Flash point	COC	°C min.	225	255	265	DIN EN ISO 2592
Pour point		°C max.	-48	-30	-27	ASTM D 7346

ADDINOL - The Experts for High-Performance Lubricants

We at ADDINOL develop and produce more than 600 high-performance lubricants of the new generation. Among these are automotive lubricants for highest demands and pioneering developments for industrial applications. Our customers all over the world benefit from the high and stable quality of our ADDINOL high-performance lubricants, our know-how and the individual customer advisory service of our competent experts. Our company has world wide activities. ADDINOL high-performance lubricants are distributed by more than 90 international partners.

The data given in this product sheet represent our current level of knowledge and experience. Due to the various specific application they do, however, not discharge the user from his own examination. The information provided herein may not be used to derive a legally binding warranty of specific properties or the suitability for a certain purpose of application. Detailed security-concerning and toxicological data as well as security instructions for each product can be taken from the corresponding Material Safety Data Sheets (MSDS). High-performance lubricants from ADDINOL are under continuous development. Therefore, ADDINOL Lube Oil GmbH keeps the right to change technical data in this product data sheet without notification. In case of doubt, please do not hesitate to contact our customers' advisory service.