



## ENGINE OILS

# ADDINOL EXTRA TRUCK MD 1049 LE

### PRODUCT DESCRIPTION

ADDINOL Extra Truck MD 1049 LE, fuel-economy engine oil with the SAE-grade 10W-40 fulfils the extreme engine oil requirements for the Euro III, Euro IV, Euro V and the new sensitive Euro VI diesel engine generation.

The completely new additive technology, combined with solely synthetic base oil components, leads to a reduction of the usual ash content active substance elements by at least 50 %. Therefore it contributes to the lowering of the pollutants for exhaust aftertreatment systems.

### APPLICATION

- Excellent applicability for the Euro III, Euro IV, Euro V and the new Euro VI commercial vehicle engine generation with exhaust aftertreatment technology posing extremely high lubrication-technical and eco-logical requirements
- The first High-Tech-Diesel-Engine-Oil (HTDEO) with low SAPS character (few ash-forming components, less phosphorus and less sulphur). Operation in heavy duty diesel engines in commercial vehicles and buses which are equipped with the new exhaust aftertreatment technology.
- Excellent suitability for engines operated with natural gas (CNG) and / or liquefied petroleum gas (LPG).
- Highly fit for public transportation services with increased CNG operation.

In addition, this product is recommended for the filling instructions - Scania Low Ash.

Manufacturer instructions of OEM must be followed for Euro V and Euro VI engines!

### SPECIFICATIONS / APPROVALS

Meets and exceeds the international specifications of:

- ACEA E6/E7
- API CI-4
- JASO DH-2

Approved according to:

- MB-approval 228.51
- MAN M 3477
- MAN M 3271-1 (mobile gas engines)
- Renault RLD-2
- MTU oil category 3.1
- Deutz DQC IV-10 LA
- Volvo VDS-3
- MACK EO-N

Complies with the requirements of:

- CAT ECF-1-a
- DAF HP 2
- Fiat-Iveco
- MB-approval 226.9
- Renault RGD, RXD
- Volvo CNG
- Scania Low Ash
- other commercial vehicle manufacturers

### DELIVERY

Delivery preferable in drums and 20 l cans

### CHARACTERISTICS

- Low SAPS-character
  - less ash forming additives
  - less phosphorus and less sulphur
- Good cleaning capacity
- Improved friction behaviour
- Excellent behaviour under low temperature conditions
- Outstanding ageing and shear stability

### ADVANTAGES AND BENEFITS

- Higher DPF lifetime
- Longer lifetime of engine and aftertreatment system – outstanding environmental behaviour because of lower exhaust emissions
- Suited for vehicles with gas engines.
- Excellent engine cleanliness
- Less fuel consumption
- Outstanding cold-start and warming-up performance, even at very low outdoor temperatures
- Reliable lubrication under all operating conditions over longest oil change intervals



# ADDINOL EXTRA TRUCK MD 1049 LE

## SPECIFICATIONS AND TYPICAL PARAMETERS

Feature	Test conditions / unit		MD 1049 LE	Method acc. to
Appearance			clear, free from contaminations	visual
Approvals			MB-approval 228.51, MAN M 3477, MAN M 3271-1, Renault RLD-2, MTU oil category 3.1, Deutz DQC IV-10 LA, Volvo VDS-3, MACK EO-N	OEM standards
SAE grade	J 300		10W-40	ASTM
ACEA			E6/E7	Laboratory and engine tests acc. to ASTM and CEC
API			CI-4	
Density	at 15°C	kg/m <sup>3</sup>	863	DIN 51757
Viscosity	at 100°C	mm <sup>2</sup> /s	13.8	ASTM D 7042
Viscosity index			160	DIN ISO 2909
HTHS-Viscosity	at 150°C	mPa*s	3.95	ASTM D 4683
TBN	mg KOH / g		9.5	DIN ISO 3771
Flash point	COC	°C	min. 230	DIN EN ISO 2592
Pour point			-36	ASTM D 7346
Pumpability			down to -30	ASTM D 4684
Sulphated ash	Ma-%		0.94	DIN 51575

### 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.