



# MOTOR VEHICLE LUBRICANT OIL. HEAVY DIESEL

## DESCRIPTION

Lubricating oil for very high-performance heavy diesel applications, with excellent levels of protection and engine cleanliness, recommended for Euro V, Euro IV and older engines that do not have a Particulate Filter (DPF).

#### **PRODUCT APPLICATIONS**

• High-performance oil specially designed for supercharged diesel engines in heavy-duty vehicles of European, American and Asian manufacturers, for long-distance transport, urban transport and public works.

• It is guaranteed to be compatible with fuels that have a high biodiesel content, avoiding the degradation suffered by previous technologies.

• In medium and heavy vehicles that require high performance lubricating oil to help with the build up of soot and to thicken the oil in the crankcase. Suitable for use in EGR-equipped engines.

• In Public Works and Mining requiring a lubricant of low consumption and superior quality.

 Not compatible with Euro VI and/or older vehicles equipped with Diesel Particulate Filters (DPFs).

CAT ECF-1a

#### **PRODUCT PERFORMANCE**

• It uses high-quality and highly resistant detergents, which keeps the engine clean of soot deposits and helps to eliminate varnishes, guaranteeing maximum protection against the formation of acids from the combustion of the fuel, provided that the change intervals set by the manufacturer are respected.

• The exceptional balance of lubricant bases used in combination with latest-generation polymers, reduces the loss of viscosity of the oil by shearing, thus avoiding wear by breaking the protective film of the lubricant between the moving parts, ensuring perfect lubrication even in high-load and low-speed situations.

• For use in all weather conditions, allowing excellent fluidity and pumpability from start-up, reducing severe initial wear, protecting the engine and extending its life span.

## SPECIFICATIONS

- ACEA E7
  - API CH-4VDS-3Mack EO-N
- VOLVO VDS-3MTU Type 2

- MB-Approval 228.3
- Renault RLD-2
- CUMMINS CES 20071/72
- MAN M 3275-1
- Detroit Diesel DDC93K215



### TYPICAL CHARACTERISTICS

CHARACTERISTIC	UNITS	METHOD	TRACTION STANDARD 15W40
SAE Grade	-	-	15W40
Density at 15°C	g/ml	ASTM D 4052	0.887
Viscosity at 100°C	cSt	ASTM D 445	14.0
Viscosity at 40°C	cSt	ASTM D 445	104
Viscosity index	-	ASTM D 2270	136
CCS viscosity at -20°C	cP	ASTM D 5293	5230
Freezing point	°C	ASTM D 5949	-33
Flash point, V/A	°C	ASTM D 92	>220
Base number, TBN	mg KOH/g	ASTM D 2896	11.1
Sulphated ash	% (m/m)	ASTM D 874	1.5

## HEALTH & SAFETY AND ENVIRONMENT

A Material Safety Data Sheet providing information on product hazards, handling precautions, first aid measures, and relevant environmental data is available for this product in accordance with the applicable legislation.

The typical values of the characteristics appearing in the table are average values given for guidance purposes only and do not constitute a guarantee. These values may be modified without any prior warning.