



# ASTRIS

## SAE 10W-40 LA - MD

**Synthetic high-performance diesel engine oil with reduced ash content, for EURO IV, EURO V and EURO VI heavy duty diesel engines, with or without exhaust gas after-treatment systems**

---

High-performance engine oil with "low SAPS" technology, especially developed to meet the strict requirements of the specification API CJ-4.

Engine oils according to API CJ-4 have been introduced for the lubrication of high-load and low-contaminant diesel engines (according to US EPA 2007 exhaust gas standards) and are therefore suitable for application in EURO IV, EURO V and EURO VI diesel motors.

This product is especially recommended for the use in heavy duty diesel engines with exhaust gas after-treatment systems, such as diesel particulate filters (DPF), diesel oxidation catalytic converters (DOCC) and exhaust gas recirculation systems (EGR).

### Properties and features

- **Low SAPS:** significantly reduced **Sulphated Ash**, **Phosphorus** and **Sulphur** content.
- Specially suitable for diesel particulate filters (DPF) and exhaust gas after-treatment systems.
- Improved soot control reduces oil thickening and wear protection.
- Very high aging and oxidation stability allows increased oil drain intervals
- Optimum wear and corrosion protection.
- Superior piston cleanliness.
- Reduced oil consumption.

### Use

Synthetic engine oil for heavy duty diesel engines with extended oil change intervals, in commercial vehicles and construction machines. Especially recommended for engines which are equipped with exhaust gas after-treatment systems.

For use in EURO IV, EURO V and EURO VI engines and even older diesel engines with and without diesel particulate filters.

This oil also meets the API SN specification; it can also be used in gasoline engines.

This engine oil meets the strong requirements of the specification CATERPILLAR ECF-3 and is prescribed for Caterpillar engines, starting from model year 2007, with a diesel particle filter or other exhaust gas after-treatment systems. It is also suitable for earlier Caterpillar engines.

**Observe manufacturer's specifications and instructions before use.**



# ASTRIS

## SAE 10W-40 LA - MD

### Specifications / Performance level

---

ACEA E9	MB 228.31
ACEA 2007: E7	MAN M 3575
API CJ-4	MTU Typ 2.1
(Exceeds CI-4 Plus, CI-4, CH-4, CG-4, CF-4)	RENAULT VI RLD-3
API SN, SM and previous specifications	VOLVO VDS-4, VDS-3
	DEUTZ DQC III-10 LA
	CATERPILLAR ECF-3, ECF-2, ECF-1-a
	CUMMINS CES 20081
	MACK EO-O Premium Plus
	Detroit Diesel Power Guard 93K218

Technical data	Unit	Method
Density at 15°C	0,864 g/cm <sup>3</sup>	ASTM D 4052
Viscosity at 40°C	98,5 mm <sup>2</sup> /s	ASTM D 445
Viscosity at 100°C	14,6 mm <sup>2</sup> /s	ASTM D 445
Viscosity index	152	ASTM D 2270
Viscosity at -25°C (CCS)	6000 cP	ASTM D 5293
TBN	8,5 mgKOH/g	ASTM D 2896
Sulphated ash	1,0 Weight %	ASTM D 874
Flash point C.O.C.	226 °C	ASTM D 92
Pour point	-36 °C	ASTM D 97

### Health, safety and environment

---

ADR / SDR : Not dangerous

EU Waste List Code : 13 02 08