

# Eni i-Sigma top MS 5W-30



## APPLICATIONS

**Eni i-Sigma top MS 5W-30** is a latest generation high-performance synthetic technology oil suitable for lubrication of diesel engines of commercial vehicles equipped with exhaust gas aftertreatment systems and previous engines, operating under severe conditions.

It allows the maximum oil change intervals foreseen by the manufacturers, it has very high fuel economy characteristics and facilitates engine startup in cold weather.

## CUSTOMER ADVANTAGES

- It is an engine oil that responds to the most severe performance levels required for heavy traction, the result of a combination of a special synthetic formulation and new 'low SAPS' additive technology.
- To ensure the effectiveness and durability of post-treatment systems, the lubricant formulation must not contain products which may have a negative impact and therefore the content of certain components (Sulphated Ashes, Phosphorus, Sulfur) must be controlled. From this point of view, it adopts an innovative formulation technology precisely in compliance with the chemical limits imposed by international specifications and manufacturers.
- 'Fuel efficiency' allows greater fuel savings than conventional lubricants. Engine life and efficiency are ensured by the high wear protection (bore-polishing), high detergency and low evaporation losses.
- The very high technological quality of the synthetic bases used and its particularly innovative formulation guarantee excellent cold starts.
- It has demonstrated excellent anti-wear properties in the tests required by the manufacturers and by ACEA, in particular minimizing wear on the cylinders (bore polishing), elastic bands, valves, etc. All metallic surfaces are effectively protected against wear and corrosion by ensuring and maintaining the maximum engine efficiency over time, allowing extended change and maintenance intervals.
- **Eni i-Sigma top MS 5W-30** is suitable for use in those applications for which the Daimler Truck manufacturer requires the DTFR 15C100 performance.



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## SPECIFICATIONS

- ACEA E7, E8, E11
- ACEA E6, E9
- API CK-4/SN
- Caterpillar ECF-3
- Cummins CES 20086
- DAF PSQL 2.1 E LD
- Ford WSS M2C213-A1
- JASO DH-2
- MAN meets M 3477
- Detroit Diesel 93K222 (Approved)
- Deutz DQC IV-18 LA (Approved)
- DTFR 15C110
- DTFR 15C120
- MACK EO-S-4.5 (Approved)
- MAN M 3677 (Approved)
- MAN M 3775 (Approved)
- MTU type 3.1 (Approved)
- Scania LDF-4 (Feedback)
- Renault VI RLD-3 (Approved)
- Volvo VDS-4.5 (Approved)

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## CHARACTERISTICS

| Properties         | Method      | Unit               | Typical |
|--------------------|-------------|--------------------|---------|
| Density at 15°C    | ASTM D 4052 | kg/m <sup>3</sup>  | 856     |
| Viscosity at 100°C | ASTM D 445  | mm <sup>2</sup> /s | 12.0    |
| Viscosity at 40°C  | ASTM D 445  | mm <sup>2</sup> /s | 71      |
| Viscosity Index    | ASTM D 2270 | -                  | 166     |
| Viscosity at -30°C | ASTM D 5293 | mPa·s              | 5800    |
| Pour point         | ASTM D 5950 | °C                 | -45     |
| Flash point COC    | ASTM D 92   | °C                 | 230     |
| B. N.              | ASTM D 2896 | mg KOH/g           | 10.0    |

