



# DIESEL TURBO THPD MID SAPS 15W40

DIESEL

## Description

THPD (Top High Performance Diesel) synthetic technology lubricant oil designed to comply with the most demanding requirements of EURO 5 and North American latest generation diesel engines (EPA 2007). Its low ash content (MID SAPS) ensures perfect performance in the post-treatment of exhaust gases incorporated in the most modern vehicles. Specially recommended for engines that require API CJ-4 quality level and that use a low sulphur content fuel.

## Properties

- Can be used when biodiesel is used as a fuel, following the recommended change periods established by the manufacturers.
- Multigrade oil that resists extremely high temperatures and minimises contaminant emissions because of its compatibility with exhaust gas post-treatment systems.
- It exceeds the demands of modern Euro 5 engines (Volvo, Mercedes Benz, Renault) and EPA 2007 (Cummins, Detroit Diesel, Mack, MTU), covering the needs of any mixed fleet.
- Its carefully studied formula reduces oil consumption, deposit levels on pistons and offers better control of viscosity and oxidation stability.
- It can be used in earlier engines according to manufacturers' specifications, and it also increases performance in comparison to traditional, heavy diesel oils.
- Depending on service conditions and EURO V engine type, this product can prolong the oil change period, provided the recommendations of the engine manufacturer are followed.
- Results tested on different engines with major reduction in wear and improved dispersion of soot and other contaminants.

## Quality level

- API CJ-4/CI-4/CI-4 Plus/ SM
- ACEA E7/E9
- MB-Approval 228.31
- CATERPILLAR ECF-3, ECF2, ECF-1-a
- Renault RLD-3
- MTU Type 2.1
- VOLVO VDS-4
- MACK EO-O Premium Plus
- CUMMINS CES 20081
- DETROIT DIESEL 93K218

## Technical characteristics

|  | UNIT        | METHOD        | VALUE        |
|--|-------------|---------------|--------------|
| SAE grade  |             |               | 15W40        |
| Density at 15°C  | g/ml        | ASTM D 4052   | 0.870        |
| Viscosity at 100°C   | cSt         | ASTM D 445    | 14.5         |
| Viscosity at 40°C  | cSt         | ASTM D 445    | 108          |
| Viscosity at -20°C   | cP          | ASTM D 5293   | 7000 max     |
| Viscosity rate   | -           | ASTM D 2270   | 135          |
| Flash point, open cup  | °C          | ASTM D 92     | 215 minimum  |
| Pour point   | °C          | ASTM D 97     | -27 maximum  |
| T.B.N.   | mg KOH/g    | ASTM D 2896   | 8.5          |
| Bosch Injector Shearing: Viscosity at 100° C after 90 cycle shearing | cSt         | CEC L-14-A-93 | 12.5 minimum |
| Sulphated ashes  | % in weight | ASTM D 874    | 0.9          |

## ■ Hazard identification

This product is not classified as toxic or hazardous under current legislation.

## ■ Handling

Minimum precautions should be taken to avoid prolonged contact with the skin. The use of gloves, visors or glasses is recommended to avoid splashes.

## ■ Health and safety hazards

**Inhalation:** Given that it is not a particularly volatile product, the risk of inhalation is minimal.

**Ingestion:** Do not induce vomiting. Provide water. Seek medical advice.

**Contact with the skin:** Wash with plenty of water and soap.

**Eyes:** Wash with plenty of water.

**General measures:** Seek medical advice.

## ■ Fire-fighting measures

No special measures required.

**Extinction:** Foams, dry chemicals, CO<sub>2</sub>, water spray. Do not apply a jet of water directly, as it could spread the product.

## ■ Environmental precautions

Danger of physical pollution if spilt (watercourses, coastlines, soil, etc.) due to its floatability and oily consistency that may harm flora and fauna on contact. Prevent the material from entering water outlets.

**Decontamination and cleaning:** Treat like an accidental oil spill. Prevent dispersion using mechanical barriers and remove by physical or chemical means.

A safety information file is available on request.

repsol.com

Unless otherwise indicated, the figures cited in technical characteristics should be considered typical.

---

Technical datasheet for Lubricants. Review 5. September 2011.