



CUPRUM DIESEL ENGINE OIL SAE 40

Synthetic non-thickened motor oil for diesel engines
API CJ-4

This synthetic lubricant is an eco-friendly solution formulated using a combination of VHVI and PAO base oils, incorporating our proprietary copper filming technology. The additive package in CUPRUM oil features ionic copper, which imparts exceptional anti-friction, anti-wear, and anti-scuffing characteristics. These properties contribute to a substantial extension in the service life of loaded components and overall engine performance improvement. Moreover, this lubricant can partially restore the surface finish of metal contact points. The exceptional properties of this lubricant also contribute to a reduction in emissions, making it an environmentally conscious choice for industries.

Application

This lubricant is recommended for the following applications:

- Highly loaded, low- and medium-speed marine diesel engines (main, trunk, crosshead, and auxiliary) utilizing distillate fuels with Sulphur content below 1% and requiring an SAE 40 viscosity grade oil,
- Diesel engines operating under high effective pressure (>15 bar) and in severe conditions such as those found in marine application and heavy-duty trucks,
- Stationary generators and pump units,
- Gearbox and reversing systems in marine vessels.

This lubricant is appropriate for various industries and is designed for use in general and separate lubrication systems of low and medium-speed marine and river fleet diesel engines (including transport, cargo, and industrial applications). It is suitable for lubricating both cylinders and crankshaft bearings, ensuring the reliable operation of main and auxiliary marine engines under normal, harsh, or extreme operating conditions.

Advantages and Potential Benefits

- Energy-saving and anti-friction properties significantly **reduce fuel consumption and increased engine power & torque**;
- Exceptional anti-wear properties **extend the engine's service life**;
- Low volatility and flash point **reduce oil consumption**;
- Highly shear resistant, allowing the oil to maintain properties during engine overloads;
- Excellent oxidative and thermal stability **extends oil life and reduces sludge formation**;
- Exhibits outstanding filterability and reduced foam formation;
- Effectively combats the increases in shear stress caused by soot dispersion;
- Superior detergent/dispersant properties **prevent deposit formation and keep engines clean**;
- Demonstrates excellent water separability, preventing the formation of emulsions with water. Maintains performance even when contaminated with seawater;
- Protects components made of ferrous and non-ferrous metals and alloys **against corrosion** caused by seawater, salt spray, and other aggressive environmental influences;
- **Reduces hazardous substances** in exhaust gases, making it an environmentally responsible choice.



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Specification and Approvals

This product is recommended for use in applications requiring:

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Physical and Chemical Parameters

Parameter	Method	Permissible change range	Normal value*
Density at 15°C, Kg/liter	ASTM D 4052	Not standardized	0,8591
Kinematic Viscosity at 100°C, cSt	ASTM D 445	12,5–16,3	14,85
Kinematic Viscosity at 40°C, cSt	ASTM D 445	Not standardized	107,61
Viscosity Index	ASTM D 2270	Not less than 95	140
Flash Point, °C	ASTM D 92	Not below than 200	220
Pour Point, °C	ASTM D 97	Not standardized	-21
Total Base Number, mg.KOH/g	ASTM D 2896	Not less than 5	7,64

Packaging:

Barrel 200 L

Features of use



Preparation of the engine is mandatory when switching to CUPRUM oil. **It is recommended that you clean your engine with CUPRUM DETERGENT.** Before switching to this oil, it is recommended to consult with a company representative.

Quality assurance

At CUPRUM, we take quality control very seriously. Every batch of our products undergoes laboratory testing in an accredited facility to ensure they meet our strict technical specifications. This ensures that our customers receive high-quality products that meet their needs and provide reliable performance.

*The typical physicochemical characteristics provided are for reference only and are not necessarily technical specifications for production and sale. The information is for reference only. This version of the product technical description supersedes previous versions and is subject to change without notice. Detailed specifications are available upon request at info@cuprum.co.id

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