

Heavy Duty Diesel Engine Oil Mineral Low SAPS

TYPE OF USE

TEKMA SUPRA 15W-40 LS is a mineral diesel engine oil specifically formulated for the latest generation of trucks, buses, construction, agricultural, stationary, and marine engines operating on low-sulfur fuel (≤ 500 ppm). Designed for low-emission turbocharged direct injection diesel engines meeting Euro II, III, IV, V, or VI emission standards, this oil is compatible with EGR (Exhaust Gas Recirculation) and/or SCR (Selective Catalytic Reduction) systems, as well as DPF (Diesel Particulate Filters). It excels in demanding service conditions, where high loads are common.

TEKMA SUPRA 15W-40 LS meets the ACEA E11 "Low SAPS" standard, featuring reduced levels of sulfated ash (≤ 1.0%), phosphorus (≤ 0.12%), and sulfur (≤ 0.4%). This low-SAPS formulation is essential for optimal performance and compatibility with modern emission control systems.

PERFORMANCES

ACEA E7-24 oils are Super High Performance Diesel (SHPD) lubricants providing effective control with respect to piston cleanliness and bore polishing. It is recommended for highly-rated diesel engines running under severe conditions e.g. extended drain intervals.

It is suitable for engines without particulate filters and most engines equipped with EGR.

ACEA E11-24 oils are mid SAPS Super High Performance (SHPD) lubricants for use in mid drain applications. **ACEA E11** represents an advancement over ACEA E7. Oils conforming to this specification are suitable for use in vehicles fitted with advanced exhaust aftertreatment systems for the reduction of particulate matter (DPFs) and the oxides of nitrogen (EGR and/or SCR) in combination with low sulfur diesel fuel.

API CK-4 oils are for use in high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway and Tier 4 non-road exhaust emission standards, as well as for previous model year diesel engines.

These oils are formulated for use in all applications with diesel fuels ranging in sulfur content up to 500 ppm. However, the use of these oils with greater than 15 ppm sulfur fuel may impact exhaust after-treatment system durability and/or oil drain interval. **API CK-4** oils are especially effective at sustaining emission control system durability where particulate filters and other advanced after-treatment systems are used.



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Oils meeting **API SN** are designed to provide improved performance across a wide range of areas including high temperature deposit protection for pistons and improved protection against the formation of engine sludge.

Oils that satisfy **API** Service Category **SN** are superior in performance to those meeting API SM and earlier and can effectively lubricate engines calling for those Service Categories.

Caterpillar ECF-3 is a low SAPS lubricant specification designed for use in high performance medium- and heavy-duty diesel engines where advanced aftertreatment systems such as Diesel Particulate Filters are fitted. Caterpillar off-highway engines that require this lubricant specification would typically align with Stage IIIB, IV and V European off-highway emissions standards and the Tier 4 Final North American emissions standard.

Cummins CES 20086 is a low SAPS engine lubricant specification designed for use in high performance medium- and heavy-duty diesel engines. This specification can be used in applications where Exhaust Gas Recirculation and advanced aftertreatment systems such as Diesel Particulate Filters are fitted and ultra-low sulfur diesel is available.

Cummins engines that require this lubricant specification would typically align with Stage IIIB, IV and V European off-highway emissions standards and the Tier 4 Final North American emissions standard.

Daimler DTFR 15C100 (formerly MB 228.31) is a lower SAPS lubricant specification designed for use in high performance medium and heavy-duty diesel engines where a standard oil drain is suitable alongside the use of advanced aftertreatment systems such as Diesel Particulate Filters.

Detroit Diesel DFS93K222 is a performance specification for heavy-duty diesel engine oils. It ensures proper lubrication and performance in modern Detroit Diesel engines, focusing on wear protection, oxidation resistance, deposit control, and compatibility with advanced aftertreatment systems.

Deutz DQC III-18 LA is a lower SAPS lubricant specification designed for use in high performance medium and heavy-duty diesel and gas engines with closed crankcase ventilation and high thermal loads. This specification can be used in applications where advanced aftertreatment systems such as Diesel Particulate Filters are fitted.

Deutz engines which require this lubricant specification would typically align with Stage IIIB and higher emissions standards.

Ford has included additional requirements beyond CK-4 in WSS-M2C171-F1 to provide additional wear protection and overall engine durability.



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The **MAN 3775** specification ensures oils meet rigorous requirements for use in modern MAN engines, including excellent wear protection, deposit control, and compatibility with advanced aftertreatment systems like DPFs.

MTU Type 2.1 is signifies a higher level of performance compared to their previous Type 2 specification, emphasizing enhanced wear protection, improved fuel economy, and optimized compatibility with advanced aftertreatment systems.

Volvo VDS-4.5 is a lubricant specification designed for use in high performance medium and heavy-duty diesel engines where advanced aftertreatment systems such as Diesel Particulate Filters are fitted. Volvo trucks, buses and construction equipment that require this lubricant specification would typically align with Euro VI and Stage V emissions standards in Europe and EPA GHG 2016 and U.S. Tier 4 Final emissions standards in the USA.

Equals the Mack EOS-4.5 and Renault Trucks RLD-3 specification.

RECOMMENDATIONS

Can be mixed with synthetic or mineral oils. Oil changes should be performed according to the manufacturer's recommendations.

Consult your vehicle's owner's manual or contact a dealer for specific guidelines, as they vary.

We also recommend the use of an oil monitoring program to optimize oil change intervals and maximize equipment protection.

PROPERTIES

Color	SAE J 300	Amber
Viscosity grade	SAE J 300	15W-40
Density at 20°C (68°F)	ASTM D1298	0.868
Viscosity at 40°C (104°F)	ASTM D445	113.0 mm²/s
Viscosity at 100°C (212°F)	ASTM D445	15.1 mm²/s
Viscosity Index	ASTM D2270	139
Pour point	ASTM D97	-39.0 °C / -38.0 °F

We retain the right to modify the general characteristics of our products in order to offer to our customers the latest technical development.



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 TBN
 ASTM D2896
 9.9 mg KOH/g

 Flash point
 ASTM D92
 244 °C / 471 °F



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STANDARDS	
ACEA	E11, E7
API	CK-4/SN
CATERPILLAR	ECF-3
DAIMLER	DTFR 15C100 (former MB 228.31)
MACK	EOS-4.5
MAN	M3775
MTU	Type 2.1
RENAULT TRUCKS	RLD-3
VOLVO	VDS-4.5
OEM PERFORMANCES	
CUMMINS	CES 20086
DETROIT DIESEL	DFS93K222
DEUTZ	DQC III-18 LA
FORD	WSS-M2C171-F1