



Premium performance, "low-SAPS" heavy-duty diesel engine oil specifically designed to lubricate a wide range of high speed diesel engines requiring API CJ-4, CI-4 PLUS, SM, or ACEA E9 performance lubricants operating under the most severe service conditions. Specifically designed for the latest low emission diesel engines fitted with diesel particulate filters, but also those fitted with EGR and/or SCR systems. Formulated with ISOSYN[®] base oils and the latest low-ash additive technology to provide exceptional soot dispersancy, deposit control and wear protection.

APPLICATIONS

- Mixed fleets of European, North American and/or Japanese diesel engines.
- Commercial road transport, including the latest engines fitted with exhaust clean-up devices of all types.
- Vehicles meeting the most recent exhaust emissions standards, including US EPA 2002 and 2007, Euro IV, V and VI, and Australian ADR 80/02 (for medium duty) and ADR 80/03 for heavy duty.
- Mixed fleets of both diesel and gasoline engines, and both old and new equipment.
- Stop-and-go vehicles in high soot loading service such as buses and waste collection trucks.
- Most diesel engined light duty vehicles.
- Off-highway vehicles and plant.
- Many heavy duty gas-fuelled vehicles.
- Mobile hydraulic systems (where oil type and viscosity are appropriate).

BENEFITS

- **Minimizes fleet maintenance costs**
Exceptional soot dispersancy keeps fuel soot in suspension, minimizing filter plugging, cylinder head sludge, abrasive polishing wear and oil thickening.
- **Reduced emissions**
Formulated with latest generation "low-SAPS" (sulfated ash, phosphorus and sulfur) technology containing reduced levels of metals, phosphorus and sulfur, it maximizes the life of sensitive catalyst metals and the cleaning intervals of diesel particulate filters.
- **Minimizes fleet operating costs**
Excellent deposit control on valves and piston crownlands reduces oil consumption. Exceptional oxidation stability and soot control provides extended oil drain capability so that equipment is in service longer generating revenue.
- **Reduces inventory costs**
"Universal" formulation provides excellent overall performance in mixed fleets of different engine designs, (including modern low emission diesel engines) allowing one oil for many services and reducing the chance of product misapplication.



PERFORMANCE STANDARDS

API	CJ-4, CI-4 PLUS, CI-4, CH-4, CF*/SM
ACEA	E9-12, E7-12, E5-02*, E3-96*
Caterpillar	ECF-3, ECF-2
Cummins	CES 20081 (Approved)
Daimler	MB-Approval 228.31 (Approved)
Detroit Diesel	93K218 (Approved)
Deutz	DQC III-10 LA (Approved)
Ford	WSS-M2C171-E*
JASO	DH-2*
Mack	EO-O Premium Plus 07 (Approved)
MAN	M 3575 (Approved)
MTU	Category 2.1 (Approved)
Renault	RLD-3 (Approved)
Volvo	VDS-4 (Approved)

* Meets the requirements of

Caterpillar 3600 Series engines - Delo 400 LE SAE 15W-40 has successfully completed a 7000 hour field trial in Caterpillar 3612 engines with used oil analysis and engine inspections.

MTU Series 4000 T94/T94L engines - Resulting from satisfactory field trial performance, Delo 400 LE SAE 15W-40 is approved by MTU for Series 4000 T94/T94L engines in oil and gas fracking applications (North America only). This is the first MTU Category 2.1 approved oil for this application that typically requires a Category 3.0 or 3.1 approval.



TYPICAL CHARACTERISTICS

Product Code	3006
SAE Grade	15W-40
Density at 15°C, kg/L	0.886
Base No., D2896, mg KOH/g	9.3
Base No., D4739, mg KOH/g	7.0
Phosphorus, m%	0.12
Sulfated Ash, m%	1.0
Sulfur, m%	0.32
Flash Point °C	204
Pour Point °C	-30
Viscosity, mm ² /s at 40°C 100°C	132 15.7
Viscosity Index	125
Zinc, m%	0.13

PACK SIZES

1000L, 205L, 20L, 5L

SERVICE CONSIDERATIONS

"Low SAPS" engine oils tend to have lower Base Numbers than "conventional" heavy duty diesel engine oils. Used in conjunction with today's low, very low, ultra low or extra low sulfur content fuels this is of no consequence. However In situations where very high sulfur (>0.5%) fuels are in use this may to some extent limit achievable drain intervals of the former in relation to the latter. Fuel sulfur levels have declined significantly over the past decade but are still relatively high in some countries.

While the level of phosphorus is low by heavy duty diesel engine oil standards, it is somewhat higher than permitted by certain recent standards for passenger car motor oils, e.g. ILSAC GF-5, and the ACEA "C" standards. Optimum life of catalytic emission control systems will be achieved by using oils of the performance standard recommended by the vehicle manufacturer.

ENVIRONMENT, HEALTH AND SAFETY

Users should consult the MSDS, follow the precautions outlined and comply with all laws and regulations concerning its use and disposal. Used packaging material should not be incinerated or exposed to flame. After use, protect your environment. Do not pollute drains, soil or water with used product.



OTHER INFORMATION

For further information on Caltex products and services call the Lubelink Advisory Service on 1300 364 169 between 8.00am and 6.00pm (EST) Monday to Friday.

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