

Delo[®] 400 XSP-SD

Premium Synthetic Heavy-Duty Diesel Engine Oil



Product Description

Delo[®] 400 XSP-SD with ISOSYN[®] Advanced Technology is a high-performance synthetic low-Sulfated Ash, Phosphorus and Sulfur (SAPS) heavy-duty diesel engine oil which is designed to meet industry and engine manufacturers' performance requirements. It is specifically designed to lubricate a wide range of high-speed diesel engines operating under the most severe service conditions with potential fuel economy benefits.

It is formulated using our most advanced additive technology to provide excellent protection for on-highway and off-highway applications, including 2017 greenhouse gas-compliant (GHG 17) diesel engines and EPA 2017 compliant low emission diesel engines with selective catalytic reduction (SCR), diesel particulate filter (DPF) and exhaust gas recirculation (EGR) systems.

Customer benefits

- **Helps minimize fleet operating costs**

Exceptional oxidation stability and soot control assist in providing extended oil drain capability for longer equipment in-service. These can assist with maximizing vehicle utilization and minimizing downtime. Potential improvement in fuel economy, as compared to conventional SAE 15W-40 oils, due to lower high temperature high shear viscosity (HTHS) and low temperature fluidity which helps reduce energy consumption at start-up.

- **Helps reduce inventory costs**

Formulation is designed to provide excellent overall performance in mixed fleets of different engine designs, (including modern low emission diesel engines) allowing one oil for many services and helps reduce the chance of product misapplication. Backward compatible with previous API Oil Service Categories and engine models.

- **Helps provide low temperature protection**

Low viscosity synthetic base stock promotes consistent cold engine starting for gasoline and diesel engines operating in low temperatures, helping to protect against start-up wear.

- **Helps maximise life of DPF**

"Low-SAPS-" technology helps maximize the life of sensitive catalyst metals and the cleaning intervals of diesel particulate filters.

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Applications

- Mixed fleets of European, North American and/or Japanese OEMs with diesel engines.
- Commercial road transport, including the latest engines fitted with exhaust cleanup devices.
- Vehicles meeting the most recent exhaust emissions standards, including US EPA 2002, 2007 and 2010, 2017 greenhouse gas (GHG 17) Euro IV, V and VI, and Australian ADR 80/02 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.
- Many diesel engine light duty vehicles.
- Off-highway vehicles and plants including agricultural equipment and generator sets.
- Many heavy-duty gas-fuelled vehicles.

Product approvals, performance, and recommendations

Developed independently by Chevron to comply with the following performance standards and specifications:

DELO® 400 XSP-SD	SAE 5W-30
API CK-4/SN CI-4 PLUS	Approved
Detroit Diesel (Daimler Truck) 93K222	Approved
Deutz DQC IV-18 LA	Approved
MAN M3677, M3691	Approved
MTU Category 3.1	Approved
Renault VI RLD-3	Approved
SAE 5W-30	Approved
Scania LDF-4	Approved
Volvo VDS-4.5	Approved
ACEA E7, E8, E11	Meets requirements
Caterpillar ECF-3	Meets requirements
Ford WSS-M2C213-A1	Meets requirements
JASO DH-2	Meets requirements
MAN M3477	Meets requirements

Consult OEM representatives for independent verification, updates and recommendations.

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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 or ultra-low sulfur content fuels this is of no consequence. However, in situations where very high sulfur (>0.2%) fuels are in use this may, limit achievable drain intervals. Fuel sulfur levels have declined significantly over the past decade but are still relatively high in some countries.

For applications where fuel Sulfur is higher, other products from the Caltex range like Delo[®] 400 MGX SAE 15W-40 are recommended.

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-6, and the ACEA “C” standards.

Always use the oils listed in the performance standard recommended by the vehicle manufacturer to improve the life of catalytic emission control systems.

Always follow OEM recommendation for appropriate fuel and engine oil selection.

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Typical Test Data

DELO [®] 400 XSP-SD	TEST METHOD	RESULT
SAE Grade		5W-30
Product Code		500867
Base No., mg KOH/g	ASTM D2896	10
Sulfated Ash, m %	ASTM D874	0.9
Sulfur, m %	X-ray/ICP	0.3
Viscosity,		
mm ² /s @ 40°C	ASTM D445	75
mm ² /s @ 100°C	ASTM D445	12.2
Viscosity Index	ASTM D2270	163

1224

ENVIRONMENT, HEALTH, and SAFETY. Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions, and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit the Product Information Center.

This Product Data Sheet (PDS) was produced for the Asia-Pacific region in good faith from the best information available at the time of issue. The specific information included may not directly reflect the local market or conditions. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. For the most up-to-date, country-specific information, please contact your local customer service center.

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