Product Data Sheet







Customer benefits

Minimized operating costs

Exceptional soot dispersancy and wear control. Cylinders, pistons, rings, and injectors are well protected against wear and corrosion, providing optimum service life and minimal maintenance. Contributes to maximum vehicle utilization and minimal downtime.

Excellent emission control system life

Provides optimum Diesel Particulate Filter (DPF) life for minimal downtime and cleaning, thus managing your maintenance costs.

Managed inventory costs

Backward compatible with previous API Oil Service Categories and engine models. Suitable for use in four-stroke gasoline and naturally aspirated, turbocharged and modern electronically controlled / low emission diesel engines calling for an SAE 15W-40 heavy duty motor oil.

Product features:

- Delo® 400 MGX SAE 15W-40 is an API CJ-4 heavy duty diesel engine oil specifically formulated for on-highway and offhighway applications using either High Sulfur or Low Sulfur Diesel and can also provide protection for newer compliant low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR). It is fully compatible with previous diesel engine models and previous API Oil Service Categories including API CI-4 PLUS, API CI-4 and API CH-4.
- **Delo® 400 MGX** is specifically formulated for exceptional performance in either high (up to 2000 ppm) or low sulfur diesel fuels and for the latest low emission diesel engines fitted with diesel particulate filters, but also those fitted with EGR and/or SCR systems.









Applications

Delo 400 MGX SAE 15W-40 is recommended for naturally aspirated and turbocharged four-stroke diesel engines in which the API CJ-4, CI-4 PLUS, CI-4 categories and SAE 15W-40 viscosity grade are required by the manufacturers. It is formulated for engines operating under severe service and a wide range of climatic conditions. This product is recommended for use in:

- Commercial road transport, including the latest engines fitted with exhaust cleanup devices of all types.
- 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.
- Most modern off-highway engines including those adapted for current and future emissions standards in construction, agriculture, marine and mining applications.
- High speed diesel engines using high (up to 2000 ppm) or low sulfur diesel fuels.
- Diesel engines utilizing diesel fuels with up to 30% biodiesel (B30)*

Note: * When using Biodiesel blended fuel meting ASTM D7467 (B6 – B20) or equivalent and higher blends when blended with B100 as per ASTM D6751 or equivalent. When using >B6 biodiesel it is critical to monitor the engine oil level and performance. Refer OEM recommendation for oil selection and drain intervals when using biodiesel.

Product features continued:

• **Delo® 400 MGX** is formulated with ISOSYN base oils and high performance low-ash additive technology to provide exceptional soot dispersancy, deposit control and wear protection.









Typical key properties

DELO® 400 MGX		
SAE Grade		15W-40
Product Code	ASTM	500634
Base No., mg KOH/g	D2896	9.9
Base No., mg KOH/g	D4739	8.0
Sulfated Ash, m %	D784	1.0
Kinematic Viscosity, mm²/s @ 40°C mm²/s @ 100°C	D445 D445	120 14.6
Viscosity Index	D2270	134

Minor variations in product typical test data are to be expected in normal manufacturing.

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Performance standards

- API CJ-4, CI-4 PLUS, CI-4, CH-4 / SM
- Detroit Diesel 93K218
- Daimler MB-Approval 228.31
- DEUTZ DQC III-10 LA
- Mack EO-O Premium Plus
- MTU Category 2.1
- Renault RLD-3
- Volvo VDS-4
- ZF TE-ML 04C

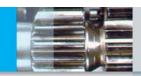
Meets the Requirements of

- ACEA E9
- Caterpillar ECF-3, ECF-2
- Ford WSS-M2C171-E
- MAN M 3575
- Suitable for use where oils meeting JASO DH-2 specification are recommended
- Suitable for use in applications requiring oils meeting Cummins CES 20081 in engines under 50 liters displacement











Service considerations

Delo 400 MGX has superb Total Base Number (TBN) retention for use in either extended drain applications or use with high sulfur diesel fuels to ensure excellent acid neutralization. It is formulated for exceptional performance in either High (up to 2000 ppm) or Low Sulfur Diesel Fuels.

Delo 400 MGX SAE 15W-40 is excellent for use in new advanced engines developed to meet the latest emissions and reliability standards and in engines equipped with features like four-valve heads, supercharging, turbo-charging, direct injection, shorter piston crowns, higher power density, intercooling, full electronic management of fuel and emissions systems, exhaust selective catalytic reduction, exhaust gas recirculation, and exhaust particulate filters.

When using with biodiesel blends containing >6% B100, monitoring oil condition is critical. Fuels with higher biodiesel content increase the risk of fuel dilution in the engine oil. This reduces the oxidation stability of the engine oil as biodiesel tends to oxidise more rapidly thus directly impacting the oil drain intervals. Biodiesel contents greater than B6 have a lower energy content than diesel fuel, which may result in slight horsepower loss and slightly increased fuel consumption.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

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 www.caltex.com.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by: **Chevron Global Lubricants**– Asia Pacific