

## **Product Information**

### **CHALLENGER STAR SAE 10W-40**

Ultra High Performance fuel-economy engine oil for a variety of petrol and diesel engines in passenger cars. Lower oil consumption and minimised exhaust emissions.

#### Description

CHALLENGER STAR SAE 10W-40 is an Ultra High Performance engine oil for passenger cars and light commercial vehicles. Also for atmospheric petrol and diesel engines, multi-valve or turbocharged. The SAE Class 10W-40 ensures reliable all-season use. CHALLENGER STAR SAE 10W-40 offers the highest wear protection and can also be used in vehicles of the late 90s and early 2000s.

#### **Application**

CHALLENGER STAR SAE 10W-40 can be used for vehicles without extended drain intervals running on petrol, diesel, or gas (LPG, CNG). Also for atmospheric petrol and diesel engines, multi-valve, turbocharged and sport vehicles.

CHALLENGER STAR SAE 10W-40 is miscible and compatible with conventional, branded engine oils. However, mixing with other engine oils should be avoided in order to fully exhaust this product's benefits. A complete oil drain is recommended when converting to CHALLENGER STAR SAE 10W-40. For information on product safety and proper disposal please refer to the latest Material Safety Data Sheet.

#### **Advantages**

- Very good wear protection.
- Low oil consumption.
- Improved protection against sludge formation.
- Very good viscosity-temperature behaviour.
- Very good cold start properties and fast oil circulation in the whole engine at low temperatures.

#### **Specifications**

- ACEA A3/B4
- API SN

#### Recommendations

- API CF
- FIAT 9.55535-D2/G2
- MB 229.1
- MB 229.3
- PSA B71 2300
- RENAULT RN0700/RN0710
- VW 501 01/505 00



# **Product Information**

#### TYPICAL CHARACTERISTICS

Density at 15°C	DIN 51757	0.865 g/ml
SAE class	SAE J300	10W-40
Kinematic Viscosity at 40°C	DIN 51562-1	91.7 mm²/s
Kinematic Viscosity at 100°C	DIN 51562-1	14 mm²/s
Viscosity Index	DIN ISO 2909	152
HTHS	CEC L-36-90	4 mPas
Pour Point	DIN ISO 3016	-39 °C
Flash Point	NFT 60118	≥ 220 °C
Sulphate ash	ASTM D874	1.2 % m/m
Product coloring	DIN 10964	none



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In all cases, to limit the risk of water contamination (including condensation), store drums and barrels horizontally. Do not expose packaging to strong sunlight or extreme temperatures. The information contained in this data sheet is based on FLF's experience and know-how in the development and manufacture of lubricants and other chemical products to the best of our knowledge. All chemical products must be used in the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). The performance of our products can be influenced by a range of factors, including conditions of use, application methods, operating environment, pre-treatment of components, possible external contamination, etc. For these reasons, a universal recommendation of our products is impossible. The information given in the data sheet represents general, non-binding guidelines and is provided for guidance only. No warranty, express or implied, is given concerning the properties of the product or its suitability for a given application. We therefore recommend consulting an application engineer to discuss application conditions and product performance criteria prior to use. It is the user's responsibility to test the functional suitability of the product and to use it under the appropriate safety conditions. Our products are subject to continuous improvement, with the aim of enhancing performance or bringing them into line with any new regulations. We reserve the right to modify our product ranges, our products and their manufacturing processes, as well as all the provisions of our publications, at any time and without prior notice. This data sheet cancels and replaces all previous editions. We expressly draw the attention of all users to the fact that our product has not been designed and tested for use in the nuclear and aeronautical fields ("embedded" product). Any use of our product in the aforementioned sectors is the sole responsibility of the user. Reproduction in any form requires the prior written consent of FLF, all rights reserved.