Ravensberger Schmierstoffvertrieb GmbH Postfach 1163

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### - Certificate / Product Information -

### **RAVENOL VMS SAE 5W-30**

Art. 1111144

SYNTHETIC CleanSynto®

#### **Description:**

RAVENOL VMS SAE 5W-30 is a synthetic, low friction engine oil with CleanSynto® technology for Daimler passenger car gasoline and diesel engines with and without turbo-charging and direct injection.

RAVENOL VMS SAE 5W-30 achieves a high viscosity index through its formulation with special base oils.

The excellent cold start behaviour provides an optimum lubricating safety during the cold run phase.

Because of a considerable fuel saving **RAVENOL VMS SAE 5W-30** contributes to protect the environment by reducing the emissions.

**RAVENOL VMS SAE 5W-30** minimizes friction, wear and fuel consumption with excellent cold start characteristics.

**RAVENOL VMS SAE 5W-30** is Oil which prevents effectively the clogging of the diesel soot particulate filter. Suitable for extended oil change intervals where recommended by manufacturer.

#### **Application Directions:**

**RAVENOL VMS SAE 5W-30** is suitable for demanding engines as high performance low friction engine oil. It is recommended for modern passenger car gasoline and diesel engines, including turbo versions and direct injection engines, for all operation conditions. **RAVENOL VMS SAE 5W-30** is recommended for use in vehicles with diesel particulate filters. It is especially formulated according to the Daimler Low SPAsh multigrade service engine oil specification MB 229.52 and suitable for BlueTEC OM642.

#### **Quality Classification:**

RAVENOL VMS SAE 5W-30 is approved, tried and tested for aggregates specifying:

Specifications: API SN, ACEA C3

Approvals: MB-Approval 229.31, MB-Approval 229.51, MB-Approval 229.52

Recommendations: Chrysler MS-11106

### **Technical Characteristics:**

#### **RAVENOL VMS SAE 5W-30** offers:

- Fuel savings in partial and full load
- Excellent wear protection and high viscosity index secure even under high speed driving conditions engine longevity
- Excellent cold starting properties even at low temperatures below -30°C
- A safe lubrication film at high operating temperatures.
- Low volatilization tendency, thereby lower oil consumption
- No oil-related deposits in combustion chambers in the piston ring zone and on valves
- Neutrality towards sealing materials
- Extended oil change intervals protect natural resources

To the best of our knowledge all information reflects the current state of findings and our development. Subject to change. Any reference to DIN standards are solely for product description purposes and do not represent a guarantee. If problems occur please consult a technician.

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### **Technical Values:**

Characteristics	Unit	Data	Test according to
Density at 20°C	kg/m³	847,0	EN ISO 12185
Colour		brown	visual
Viscosity at 100°C	mm²/s	12,2	DIN 51562-1
Viscosity at 40°C	mm²/s	72,8	DIN 51562-1
Viscosity Index VI		165	DIN ISO 2909
HTHS Viscosity at 150°C	mPa*s	3,51	ASTM D5481
CCS Viscosity at -30°C	mPa*s	5258	ASTM D5293
Low Temp. Pumping viscosity (MRV) at -35°C	mPa*s	20.300	ASTM D4684
Pourpoint	°C	-39	DIN ISO 3016
Noack Volatility	% M/M	8,5	ASTM D5800
Flashpoint	°C	234	DIN ISO 2592
TBN	mg KOH/g	8,6	ASTM D2896
Sulphated ash	%wt.	0,8	DIN 51575

 $\overline{\mbox{All}}$  indicated data are approximate values and are subject to the commercial fluctuations.

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