

# MAK CG4 15W-40

## High performance multigrade heavy duty diesel engine oil

MAK CG4 15W-40 is an advanced heavy duty diesel engine oil specially developed to meet low exhaust emission standards of heavy duty diesel engines operating under challenging conditions. Its carefully selected additives in combination with highly hydro processed Group II plus base oils deliver long life and enhanced protection to the engines. The unique dispersants chemistry provides superior soot handling capacity. This oil also has an exceptional ability to maintain engine cleanliness and to protect engine parts, thereby extending engine life and reducing maintenance costs. This oil is suitable for use in all seasons and helps in reducing oil consumption.

## Applications:

MAK CG4 15W-40 is recommended for use in heavy-duty diesel engines using low sulphur (0.05% max) diesel, for onhighway and off-highway application demanding an advanced grade. It is also suitable for use in Construction, Mining, Railways and Agricultural equipment diesel engines where API CG-4, SAE grade 15W-40 oil is recommended. This oil can also be used in vehicles requiring API CF-4 type of oil. Alternatively be guided by OEM's recommendation for oil drain period.

## Performance/ Benefits:

**Excellent Thermo-Oxidative Stability** – enhanced high temperature oxidation and thermal stability offers superior protection against oil oxidation and thermal breakdown even at high temperatures. Controls oil thickening. Extends oil life.

**Superb Wear Protection** – provides improved wear protection to various engine components such as cylinder liner, piston rings & valves, cams and other components over wide range of operating temperatures. Offers increased engine life and reduced maintenance cost.

**Reduced Oil Consumption** – high quality base oils with lower volatility have potential of lower oil consumption. Offers reduced top ups.

**Good TBN Retention** – provides excellent protection to the engine components over the corrosive acids formed during

combustion and oil oxidation with very high TBN retention capabilities.

**Excellent Shear Stability** – ensures viscosity control at high temperatures and high shear conditions to provide superior protection.

## Performance Level/ Specification:

Meets the performance benchmarks of

- API CG- 4/ SJ
- IS 13656; 2002 Type EDL6
- Volvo VDS
- MTU Type 1
- MB 228.1

#### Typical Physico-Chemical Data: MAK CG4 15W-40

Characteristics	Method	Value
SAE Grade	SAE J300	15W-40
Color	Visual	Brown
Appearance	Visual	Clear
Density @ 29.5 <sup>o</sup> C, g/cc	ASTM D1298	0.876
Kinematic Viscosity @40 <sup>o</sup> C, cSt	ASTM D445	105.4
Kinematic Viscosity @100 <sup>o</sup> C, cSt	ASTM D445	14.30
Viscosity Index	ASTM D2270	139
Copper Corrosion, 100 <sup>o</sup> C, 3 hrs.	ASTM D130	1a
Flash Point, <sup>o</sup> C	ASTM D92	228
Pour Point, <sup>o</sup> C	ASTM D97	-27
Foaming Tendency	ASTM D892	
a) Sequence I		Nil / Nil
b) Sequence II		10 / Nil
c) Sequence III		Nil / Nil

### Storage & Handling:

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing and store under protected storage conditions.

#### Health & Safety:

It is unlikely to be hazardous when properly used in recommended applications. Contamination of the coolant from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.