

# PRODUCT DATA SHEET

## ADVANCE DIESEL ENGINE OIL

### (CK-4/FA-4)

#### Product Description

Chosen Advanced CK-4 & FA-4 Diesel Engine Oils are specially designed to meet new Proposed Category 11 (PC-11) specifications for heavy-duty vehicle. The new category splits into two separate and distinct subcategories: one that preserves historical heavy-duty oil criteria and one that provides additional fuel efficiency and economy benefits for modern diesel engine technology while maintaining durability. Chosen Advanced Diesel Engine Oil improves engine performance including oxidation stability, shear stability and aeration.

Chosen Advanced Diesel Engine Oil not only meets API credentials, but also is also designed to meet the latest original equipment manufacturers (OEMs) performance specifications in appropriate grades and base stocks - including Caterpillar, Cummins, Detroit Diesel, Mack, Renault, Volvo, Mercedes-Benz, MAN, and Ford. Chosen Advanced HeavyDuty Diesel Engine Oil also meets the self-certifying requirements of ACEA E9.

#### Applications / Benefits:

- Combating oxidation and deposits
- Neutralising harmful acids
- Controlling oil aeration
- Also adapting to increased temperatures while resisting viscosity loss through shear.
- Suitable for modern diesel engine

#### Typical Characteristics

Test Description	Method	ADV FA10	ADV 10	ADV 15
SAE Viscosity Grade	SAE J 300	10W-30	10W-30	15W-40
API	-	FA-4	CK-4	CK-4/SN
Specific Gravity @ 15 °C	ASTM D 4052	0.879	0.881	0.883
Flash Point, °C	ASTM D 92	220	224	228
Pour Point, °C	ASTM D 97	-27	-27	-24
Kinematic Viscosity, cSt @ 40°C	ASTM D 445	65.8	82.7	111
cSt @ 100°C	ASTM D 445	9.82	11.8	14.7
Viscosity Index	ASTM D 2270	132	135	136
TBN, mgKOH/g	ASTM D 2896	9.8	9.8	9.8
Color	ASTM D 1500	≤ 4.0	≤ 4.0	≤ 4.0
HTHS, cP	ASTM D 5481	3.0	3.6	4.1

#### Specifications, Approvals & Recommendations

- API CK-4/SN in SAE 15W40
- API CK-4 & FA-4 in SAE 10W30
- API CJ-4, CI-4+, CI-4, CH-4
- ACEA E9-12, E7-12
- Caterpillar ECF-3
- Cummins 20081, 20086, 20087
- Daimler MB 228.31
- Deutz DQC III-10 LA
- DDC 93K222, DDC 93K223, DDC 93K218
- Ford WSS-W2C171-E, WSS-W2C171-F
- Mack EOS-4.5, EO-O Premium Plus
- MAN M3575, M3275
- MTU CATEGORY 2.1
- Renault RLD-4, RLD-3
- Volvo VDS-4.5, VDS-4