

## Synthetic Blend Diesel Engine Oil CK-4/SN

### General Description

Maxtron® DEO synthetic blend diesel engine oils are engineered to protect all Tier IV and low emission engines and their exhaust after treatment systems. This robust formulation is also designed to provide additional protection for older engines. The high starting TBN, outstanding TBN retention, and additional anti-oxidant levels give Maxtron DEO the highest level of reserve performance quality to provide excellent engine protection in the most severe service.

Maxtron DEO is designed for longer engine life through enhanced oxidation performance in fleet, construction, and agriculture equipment under the most extreme conditions. It has undergone thousands of hours of engine testing and millions of miles of field testing to give superior backward-compatible and unsurpassed engine protection.

Maxtron DEO is proven to protect Diesel Particle Filter (DPF) against ash build up, and also provides improved engine protection from soot, deposits, varnish, wear and acid accumulation. Additional benefits including TBN retention, viscosity shear loss and reduced oil consumption are seen with regular use of Maxtron DEO.

### Expect excellent performance in these applications:

- Four-stroke naturally aspirated and turbocharged diesel engines
- All Tier IV Final engines
- Excellent backward compatibility, suitable to all pre 2010 engines
- When using ultra low sulfur diesel fuel

### Features and Benefits

- **Oxidation Prevention:** Advanced new anti-oxidant technology prevents oil degradation and thickening under high operating temperatures, retaining proper viscosity and wear protection.
- **Oil Durability:** This oxidation system is specially blended to provide longer oil and engine life. Reduced air entrainment also leads to stronger film strength.
- **Exceptional Soot Control:** Proven soot control that exceeds the requirements of both new and older engines. Controlling and dispersing soot is critical for reducing engine wear and extending engine life.
- **TBN Retention:** A high Total Base Number (TBN) and excellent TBN retention means that more combustion contaminants (deposits, soot, acids) can be held in suspension and neutralized during the course of a drain interval.
- **Deposit and Consumption Control:** Engine and field testing confirms an excellent reduction in deposits and oil consumption leading to longer engine life, emission, and (DPF) system life.
- **Reserve Protection:** Maxtron DEO features the extra reserve built into the oil. This reserve capacity suspends additional soot, neutralizes additional acids and reduces wear for longer engine life.
- **Volatility Control:** Less oil volatility provides reduced consumption, lower deposits, and reduced oil into the emission system.
- **Extended Drain:** Maxtron DEO is capable of extended drain service with new and older engines using today's fuels. This should be determined with a regular LubeScan® used oil analysis program.

# Maxtron<sup>®</sup> DEO

## Synthetic Blend Diesel Engine Oil CK-4/SN

### Typical Application

Maxtron DEO is designed to exceed the newest API and OEM service categories:

**Mack** EOS-4.5, EO-O Premium Plus, EO-N, **Volvo** VDS-4.5, VDS-4, VDS-3, **Cummins** CES20086, CES20081, ( and all prior CES Specifications)

**Caterpillar** ECF-3, ECF-2, **Detroit Diesel** DFS 93K222, 93K218, **Daimler MB** 228.31\*, **Renault** RLD-4, RLD-3\*, **MAN** M-3575\*, **ACEA** E9-2012, E7-08/E9-08, **MTU** Category 2.1\*

\*SAE 10W-30 and official OEM claims are formulation specific.

### Typical Customer

Operators of heavy-duty diesel engines:

- Truck fleets with newer low emission compliant engines or older engines.
- Construction diesel engines operating under heavily loaded conditions.
- Agricultural diesel engines operating in severe conditions.
- Light Duty Diesel Trucks
- Stationary engines, irrigation, and standby generators.
- Ag OEMs including John Deere, Case IH, AGCO and Mahindra.

### Typical Properties

SAE Grade	15W-40	10W-30
API Service	CK-4,CJ-4, CI-4 Plus, CI-4,/ SN	CK-4, CJ-4, CI-4 Plus, CI-4,
API Gravity/Density lbs/gal	31.4/7.33	32.4/7.29
Viscosity @ 40°C, cSt	112.6	81.9
Viscosity @ 100°C, cSt	15.2	12.2
Viscosity Index	141	145
Pour Point, °F (°C)	-33 (-36)	-44 (-42)
MRV-TP1, cP	18600 @ -25°C	20100@ -30°C
CCS Viscosity, cP	5210 @ -20°C	6,070@ -25°C
Total Base No. (TBN)	10	10
HTHS Viscosity, mPa-s      ASTM D4683	4.1	3.5
Sulfated Ash Wt. %	0.99	0.99

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

### Health & Safety

A complete safety data sheet is available by calling 1-651-355-8438 or visit [www.cenex.com](http://www.cenex.com).