



DELIVERING MAXIMUM ENGINE PROTECTION



Diesel engine oil that runs smart.

PREMIUM HEAVY DUTY DIESEL ENGINE OILS FOR SUPERIOR ENGINE PROTECTION

Engineered to exceed the highest industry and diesel engine manufacturers' requirements for new, current and older diesel engines.

The Cenex® portfolio of heavy duty diesel engine oils exceed the stringent performance requirements of API CK-4 to deliver superior wear protection and enhance performance in the toughest conditions. With over 80 years of experience in formulating lubricants for the harshest conditions, we know tough and what it takes to keep your equipment out of the shop.

Cenex® Maxtron® Enviro-EDGE®, Maxtron® DEO and Superlube TMS® meet a range of specifications and approvals from leading original equipment manufacturers. These premium heavy duty diesel engine oils are suitable for use in high-speed, four-stroke diesel engines designed to meet the most current model year on-highway and Tier 4 off-road exhaust emission standards. Cenex diesel engine oils are excellent for on-highway fleets, construction, agriculture, forestry applications and diesel pickup trucks.



Industry Specifications

Cenex heavy duty diesel engine oils are designed to meet or exceed the following API Service Categories: CK-4 /SN*, CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, and CF.

Cenex Diesel Engine Oils Provide:

- Enhanced wear and corrosion protection for longer engine life
- Improved engine performance in extreme weather conditions
- Excellent cold-flow properties and low temperature pumpability

Industry Requirements	Viscosity grade	Oil durability	Engine protection	All weather performance	Viscosity control	Extended drain	Fuel economy
MAXTRON ENVIRO-EDGE	5W-40	Superior	Superior	Superior	Superior	Superior	Superior
MAXTRON DEO	15W-40	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
	10W-30	Excellent	Excellent	Excellent	Excellent	Excellent	Superior
SUPERLUBE TMS	15W-40	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
	10W-30	Very Good	Very Good	Very Good	Very Good	Very Good	Excellent

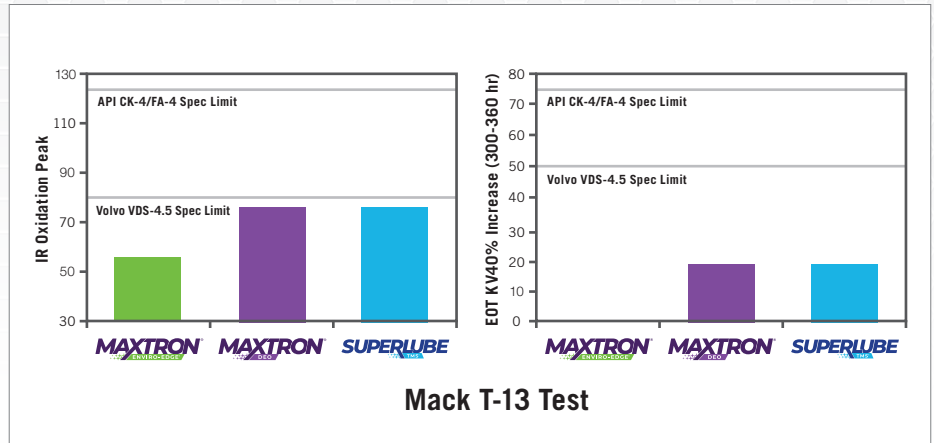
*Viscosity grade dependent

Ratings: Superior, Excellent, Very Good and Fair

CENEX® HEAVY DUTY DIESEL ENGINE OILS OFFER:

Outstanding Engine Protection

Conventional oils oxidize at high temperatures causing sludge and varnish buildup. **Oxidation resistance is critical for extended drain intervals. Cenex oils exceed the most grueling oxidation test required by Mack for API CK-4 – Cenex® Maxtron® Enviro-EDGE® additive technology delivers virtually no viscosity change in the Mack T-13 test.** Cenex diesel engine oils are engineered to provide superior viscosity retention and shear resistance compared to conventional oils. These oils feature industry-leading polymer technologies to extend oil durability for longer oil life and engine protection.



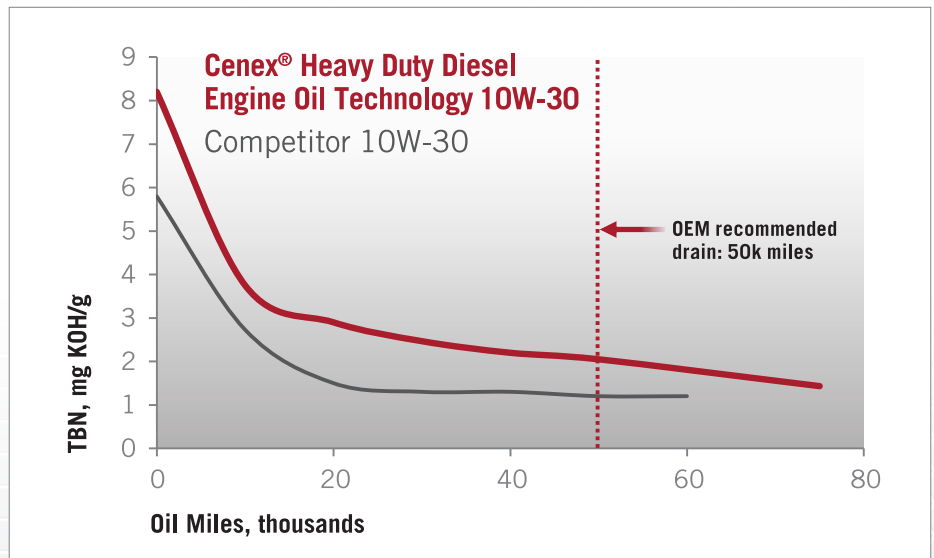
Exceptional Engine Cleanliness

The full slate of Cenex advanced formulas are engineered with Wear Saver® Technology to provide an additional level of protection for engine parts under the most extreme conditions. These oils disperse both conventional and EGR soot into finer particles, which prove to be far less abrasive on engine parts than larger soot masses. **Cenex engine oil technology is proven to provide superior piston cleanliness at 500,000 miles.**



Enhanced Corrosion Protection for Reduced Wear

The prevention of corrosive bearing wear caused by acid formation in the engine is one of the most important parameters for extended drain protection. Cenex heavy duty diesel engine oils offer high, long-lasting Total Base Number (TBN) to save your equipment investment.



THE PROVEN PERFORMANCE OF CENEX® DIESEL ENGINE OILS



Maxtron® Enviro-EDGE®, a full synthetic diesel engine oil enhances engine performance and fuel economy with no compromise on engine durability. The most advanced diesel engine oil offered by Cenex, this full synthetic formula safeguards hardworking engines and advanced emissions systems.

Maxtron Enviro-EDGE technology exceeds the critical industry tests, improves fuel economy up to 3% in extreme conditions and up to 2% in normal conditions.* Maxtron Enviro-EDGE features 11 TBN with reserve acid fighting capability. It prevents corrosive wear long after the oil has been in use. **Actual fleet tests of Maxtron technology has demonstrated that after 50,000 miles, this premium lubricant still had 50% acid fighting reserve ensuring added engine protection.**

Typical Applications: Maxtron Enviro-EDGE is designed to exceed the newest API and OEM service categories and is recommended for applications calling for: **Mack** EOS-4.5, EO-O Premium Plus, EO-N, **Volvo** VDS-4.5, VDS-4, VDS-3, **Cummins** CES 20086, CES 20081, **Caterpillar** ECF-3, EC-/2, **Detroit Diesel** DFS 93K222, DFS 93K218, **Ford** WSS M2C171-F1, **Daimler** MB 228.31, **Renault** RLD-4, RLD-3, **MAN** M-3575, **MTU** Category 2.1, **ACEA** E9-2012, E7

*For the typical applications of each product line, please refer to the spreadsheet for a complete listing of the fully documented claims.

Maxtron® DEO, a synthetic blend diesel engine oil provides superior protection for both modern diesel engines with exhaust emission control systems and older heavy duty diesel engines operating on ultra-low sulfur diesel fuel.

Maxtron DEO is engineered to handle intense heat as well as provide excellent protection in colder operating conditions. The perfect choice for both on- and off-road applications where an extra level of protection is required due to extreme temperature changes.

Typical Applications: Maxtron DEO meets or exceeds the newest API and OEM service categories and is recommended for applications calling for: **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, **Ford** WSS M2C171-F1, **Allison** TES 439, **Daimler** MB 228.31, **Renault** RLD-4, RLD-3, **MAN** M-3575, **ACEA** E9-2012, E7-08/E9-08, **MTU** Category 2.1

Superlube TMS® features an enhanced formulation which provides field-tested engine durability, offers premium protection against soot, prevents sludge deposits and significantly slows oil thickening.

Superlube TMS is a robust conventional diesel engine oil that protects the advanced emissions systems of Caterpillar, Cummins, Detroit Diesel and Mack diesel engines calling for API CK-4 or earlier categories.

Superlube TMS heavy duty diesel engine oil offers proven protection featuring over 100+ million miles of real-world experience. A perfect choice for services involving long hours, heavy loads and dusty, dirty conditions.

Typical Applications: Superlube TMS meets the newest API and OEM service categories and is recommended for applications calling for: **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, **Ford** WSS M2C171-F1, **Allison** TES 439, **Daimler** MB 228.31, **Renault** RLD-4, RLD-3, **MAN** M-3575, **ACEA** E9-2012, E7-08/E9-08, **MTU** Category 2.1

THE CENEX® MAXTRON® DIESEL ENGINE OIL DIFFERENCE

Cenex® Maxtron® Enviro-EDGE® and Maxtron® DEO are the smartest oils for the toughest conditions. These advanced formulations provide superior engine cleanliness and protection for efficient performance in extreme weather and tough conditions.

Oil That Runs Smart

Maxtron® Enviro-EDGE® and Maxtron® DEO are formulated with EnduroVis™, an industry-leading advanced radial polymer technology for exceptional oil durability and viscosity control. The unique star shape allows EnduroVis to retain its structure throughout intense pressures and engine conditions. Enabling **Cenex Maxtron diesel engine oils to retain 80% of the original viscosity between drain intervals.** Due to its ultra-low shear stability index of 5 SSI, EnduroVis provides unsurpassed shear resistance and protection against viscosity loss due to mechanical and chemical stress. Compared to a competitive linear-coil shaped polymer, Maxtron Enviro-EDGE and Maxtron DEO are 5 times more shear stable for enhanced engine protection and extended drain intervals.

Efficient Engine Operation

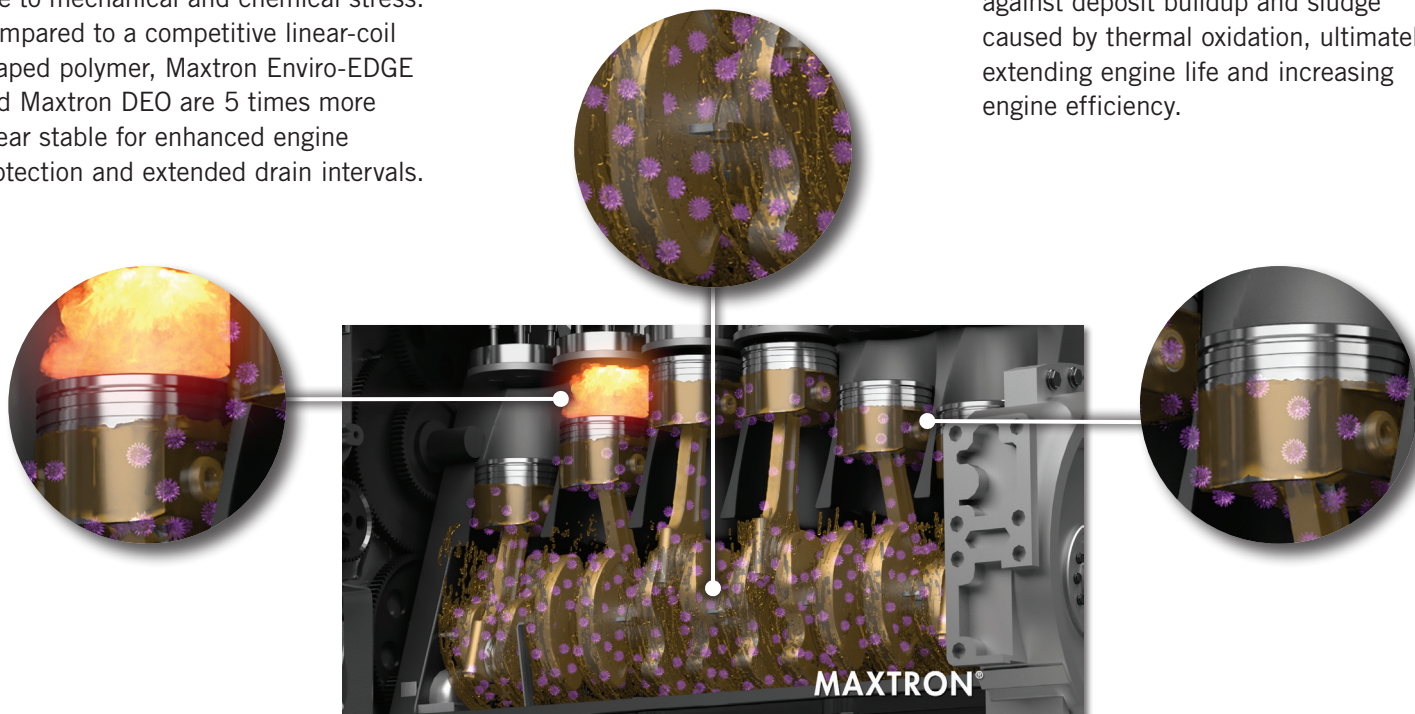
The full synthetic and semi-synthetic formulations of Maxtron Enviro-EDGE and Maxtron DEO are engineered with quality base oils and a balanced additive package to provide superior engine efficiency in severe temperature applications, delivering up to 3% improved fuel economy in extreme conditions and up to 2% in normal conditions. The synthetic base oils provide faster oil flow in extreme cold temperatures and minimize oil thinning under increased temperatures to keep critical components protected no matter what the weather.



- 1) Open your phone's camera
- 2) Place camera over QR code
- 3) Visit maxtronsmart.com to compare to the competition

Balanced Additive Package

Cenex Maxtron diesel engine oils contain a carefully selected additive package designed to keep engines clean in the toughest conditions. Our selective additive package protects engines against deposit buildup and sludge caused by thermal oxidation, ultimately extending engine life and increasing engine efficiency.



Visit maxtronsmart.com to see it all in action!

THE PROVEN PERFORMANCE OF CENEX®

The Ultimate Advantage

Our portfolio of heavy duty diesel engine oils meet the requirements of the API CK-4 service category and the more demanding needs of the most current OEM requirements. We are proud to offer our most technologically advanced product line ever produced to help protect your equipment investments. No matter what challenge you face, from long hours of operation under heavy loads, to dusty, dirty conditions, Cenex has the best heavy duty diesel engine oil to meet your needs.



Maxtron® Enviro-EDGE® Typical Properties

SAE Viscosity Grade	5W-40
API Service	CK-4, CJ-4, CI-4 Plus, /SN
API Gravity/Density lbs/gal	34.1/7.12
Viscosity @ 40° C, cSt	92.8
Viscosity @ 100° C, cSt	15.1
Viscosity Index	172
Pour Point, °F (°C)	-49 (-45)
MRV-TP1, cP	24,800 @ -35° C
CCS Viscosity, cP	5,809 @ -30° C
Total Base Number (TBN)	11
HTHS Viscosity, mPa-s ASTM D4683	4.1
Sulfated Ash, % wt.	1.0



Maxtron® DEO Typical Properties

SAE Viscosity 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	34.1/7.12	32.4/7.18
Viscosity @ 40° C, cSt	113.2	81.9
Viscosity @ 100° C, cSt	15.1	12.2
Viscosity Index	139	144
Pour Point, °F (°C)	-33 (-36)	-44 (-42)
MRV-TP1, cP	19,900 @ -25° C	20,100 @ -30° C
CCS Viscosity, cP	5,760 @ -20° C	6,070 @ -25° C
Total Base Number (TBN)	10	10
HTHS Viscosity, mPa-s ASTM D4683	4.1	3.5
Sulfated Ash, % wt.	1.0	1.0



Superlube TMS® Typical Properties

SAE Viscosity 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	29.9/7.3	31.2/9.2
Viscosity @ 40° C, cSt	122.1	82.9
Viscosity @ 100° C, cSt	16	12.2
Viscosity Index	139	142
Pour Point, °F (°C)	-33 (-36)	-44 (-42)
MRV-TP1, cP	23,100 @ -25° C	21,800 @ -30° C
CCS Viscosity, cP	6,070 @ -20° C	6,290 @ -25° C
Total Base Number (TBN)	10	10
HTHS Viscosity, mPa-s ASTM D4683	4.2	3.5
Sulfated Ash, % wt.	1.0	1.0

AVOID DOWNTIME WITH LUBESCAN® USED OIL ANALYSIS

Increase efficiency, reduce downtime, manage your fleet and protect valuable equipment by making LubeScan® Used Oil Analysis a key component of your preventative maintenance service program.

LubeScan® Used Oil Analysis is a comprehensive program designed to identify and troubleshoot potential engine problems before costly repairs are needed. Using LubeScan on a regular basis provides an indication of vehicle health, establishes a historic trend and creates a condition baseline for equipment.

LubeScan:

- Aids in diagnosing the condition of oil lubricated equipment
- Helps indicate excess contamination
- Assists in determining optimum drain intervals
- Increases potential resale value of tested equipment

70%

of fleet operators use oil analysis as a part of their maintenance program.



Visit cenex.com/locator to find your nearest Cenex dealer and to purchase your LubeScan Used Oil Analysis kit.



LEARN MORE AT [CENEX.COM](https://www.cenex.com)



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