

# RHINO SUPER TOP FLEET HD-V HDDEO SAE 15W-40 API CK-4

## High-Performance Heavy-Duty Diesel Engine Oil

### DESCRIPTION

RHINO SUPER TOP FLEET HD-V DIESEL ENGINE OIL SAE 15W-40 API CK-4 is advanced diesel engine oils that help extend engine life, allowing you to run your business with confidence. These products meet or exceed original equipment manufacturer (OEM) requirements and deliver high performance in both on and off-highway applications.

Fully backward compatible, RHINO SUPER TOP FLEET HD-V DIESEL ENGINE OIL SAE 15W-40 API CK-4 delivers exceptional performance in both newer and older heavy-duty engine designs. Accordingly, these oils meet or exceed the requirements of API CK-4, CJ-4, CI-4 PLUS, CI-4 and CH-4 service categories and gasoline engines requiring the API SN, as well as key OEM requirements.

RHINO SUPER TOP FLEET HD-V DIESEL ENGINE OIL SAE 15W-40 API CK-4 is a tailored formulation that delivers excellent wear and engine protection, extended drain capability, outstanding high temperature performance and engine cleanliness. Developed in close collaboration with major OEMs, they are recommended for use in a wide range of heavy-duty applications and operating environments in the trucking, mining, construction, agricultural and marine industries.

### APPLICATIONS

- Recommended for the latest heavy-duty diesel engines, including those equipped with after treatment systems and EGR.
- Recommended for diesel applications using older and naturally aspirated conventional designs.
- On-highway heavy-duty trucking and off-highway applications including trucking, mining, construction, agriculture and marine.
- On-highway applications operating in both high speed/high load and short haul pick-up/delivery service.
- Off-highway applications operating in severe low speed/heavy load conditions using up to 500 ppm sulfur fuels.
- Diesel-powered equipment from American, European and Japanese OEMs.

### PERFORMANCE FEATURES AND BENEFITS

- Meets demanding specifications of key OEMs and latest API gasoline service category - One engine oil for mixed fleet operations
- Outstanding oxidation stability - Extended ODI capability. Reduced low temperature sludge build-up and high temperature deposits
- Excellent soot and viscosity control
- Outstanding TBN reserves
- Low temperature fluidity and pumpability
- Component compatibility - Long gasket and seal life
- Low ash formulation meeting API CK-4 and CJ-4 requirements - Long emissions aftertreatment life (DPF, DOC and SCR)

### RECOMMENDATIONS / SPECIFICATIONS

International Standards: API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4 / SN, ACEA E9, E7, JASO DH-2

Meets or exceeds: DTFR 15C100 (MB Approval 228.31), Volvo VDS-4.5, VDS-4, MAN M 3775, Deutz QQC III-18 LA, MTU Type 2.1, Allison TES 439, Isuzu DEO (w/ DPD Equipped Vehicles), Detroit Diesel DFS 93K222, 93K218, Caterpillar ECF-3, Cummins CES 20086, 20081, RVI RLD-4, VDS-4, Mack EOS-4.5, EO-O Premium Plus

### TYPICAL TECHNICAL PROPERTIES

Viscosity Grade, SAE J300	15W-40
PRODUCT CODE:	DEO-24081
Density at 15°C, g/ml, ASTM D4052	0.8594
Cold Cranking Viscosity(CCS), mPa s, ASTM D5293	5900 @-20°C
Kinematic Viscosity at 40°C, mm <sup>2</sup> /s, ASTM D445	104.3
Kinematic Viscosity at 100°C, mm <sup>2</sup> /s, ASTM D445	15.04
Viscosity Index, ASTM D2270	151
Flash Point(COC), °C, ASTM D92	240
Pour Point, °C, ASTM D97	-33
Total Base Number (TBN), mg KOH/g, ASTM D2896	10
Sulfated Ash, wt%, ASTM D 874	1.0
MRV, cP, ASTM D 4684	17500 @-25°C
High-Temperature/High-Shear Viscosity @ 150°C, cP, ASTM D4683	4.2

Note: These characteristics are typical of current production. While future production will conform to RHINO's specification, variations in these characteristics may occur.

Health and Safety: Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contact office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing off used product, take care to protect the environment.