

Mobil Delvac 1 ESP 5W-40

Synthetic Supreme Heavy Duty Diesel Engine Oil

Product Description

Mobil Delvac 1 ESP 5W-40 is a synthetic supreme performance heavy duty diesel engine oil that helps extend engine life while providing long drain capability and potential fuel economy for modern diesel engines operating in severe applications. Mobil Delvac 1 ESP utilizes state-of-the-art technology to deliver exceptional performance in modern low emission engines, including those with Exhaust Gas Recirculation (EGR) and After Treatment systems with Diesel Particulate Filters (DPF's) and Diesel Oxidation Catalysts (DOC's), as well as refrigerated units and older, well-maintained engines. Mobil Delvac 1 ESP 5W-40 is recommended for use in a wide range of heavy-duty applications and operating environments found in the on-road transport and off-road mining, construction, and agricultural industries. Mobil Delvac 1 ESP also meets the API SM specification for gasoline engines used in mixed fleets.

The outstanding performance of Mobil Delvac 1 ESP 5W-40 is the result of extensive cooperative development work with major equipment builders and application of the latest lubrication technology. As a result, this product meets or exceeds the latest API, ACEA, and Global industry specifications for diesel engine oils, as well as the requirements of virtually all major American, and European engine manufacturers.

Features and Benefits

Many modern, low emission diesel engines generate more soot and operate at higher temperatures than older engines. This significantly increases the need for supreme performance lubricants. In addition, new engines (model-year 2007 and beyond) come equipped with After Treatment devices installed in the engine exhaust stream which will require the use of both API CJ-4 oils and ultra-low sulfur fuels to function properly. Further, new engines using EGR will generate even higher levels of acid, soot and heat than older EGR engines due to substantially increased EGR rates compared to previous EGR designs. Top piston rings are located higher, bringing the oil film closer to the combustion chamber and exposing the lubricant to severe thermal stresses. Mobil Delvac 1 ESP 5W-40 maintains outstanding performance at significantly higher temperatures than other high performance diesel engine oils. It is also fully compatible with conventional oils. The key benefits include:

Features	Advantages and Potential Benefits
Meets or exceeds demanding specifications of major OEMs	One engine oil for mixed fleet operations
Outstanding thermal and oxidation stability	Excellent low temperature sludge build-up and high temperature deposits
Engineered film strength at high temperatures	Controlled engine scuffing and bore polishing
Inherent stay-in-grade shear stability	Wear protection and reduced oil consumption; maintains viscosity in severe, high temperature service
Advanced formulation and viscometrics	Delivers fuel economy
Low volatility	Controlled oil consumption
Exceptional low temperature pumpability	Easy engine start-up and wear protection
Enhanced TBN quality reserve	Deposit control and extended drain capability
Outstanding resistance to corrosion	Long life of critical wear surfaces
Long drain capability	Helps to improve operating efficiency and control overall cost

Due to continual product research and development, the information contained herein is subject to changes without notification. Additional important health and safety information on this product can be found in the Material Safety Data Sheet, which is available online at www.imperialoil.ca/mobil or by contacting Lubricants and Petroleum Specialities, Technical Services, Technical Help Desk: 1-800-268-3183



Applications

Mobil Delvac 1 ESP 5W-40 is recommended for use in all super high performance diesel applications, including modern low emission engine designs with Exhaust Gas Recirculation (EGR), After Treatment systems with Diesel Particulate Filters (DPF's) and Diesel Oxidation Catalysts (DOC's). These applications include the following:

- On-highway engines operating in both high speed/high load and stop-and-go conditions
- Off-highway engines operating in severe low speed/heavy load conditions
- Virtually all diesel powered equipment from American and European equipment builders
- High performance gasoline engines and mixed fleets
- Refrigeration units

Specifications and Approvals

Mobil Delvac 1 ESP 5W-40 meets or exceeds the following industry and builder specifications:	5W-40
API CJ-4/CI-4 PLUS/CI-4/CH-4/CG-4/CF-4/ SM/SL	X
ACEA E7/E5	X
Caterpillar ECF-3	X
Cummins CES 20081	X
Detroit Diesel Power Guard Oil Specification 93K218, 93K214	X
Mack EO-O Premium Plus, EO-N Premium Plus 03	X
Mercedes Benz 228.31, 228.3	X
Volvo VDS-4, VDS-3, VDS-2	X

Typical Properties

Mobil Delvac 1 ESP 5W-40	5W-40
SAE Grade	5W-40
Viscosity, ASTM D 445	
cSt @ 40°C	98
cSt @ 100°C	14.7
Viscosity Index, ASTM D 2270	156
Sulfated Ash, wt%, ASTM D 874	1.0
Total Base #, mg KOH/g, ASTM D 2896	10.1
Pour Point, °C, ASTM D 97	-48
Flash Point, °C, ASTM D 92	249
Density @ 15°C kg/l, ASTM D 4052	0.85

Due to continual product research and development, the information contained herein is subject to changes without notification. Additional important health and safety information on this product can be found in the Material Safety Data Sheet, which is available online at www.imperialoil.ca/mobil or by contacting Lubricants and Petroleum Specialties, Technical Services, Technical Help Desk: 1-800-268-3183



Precautions

Mobil Delvac 1 ESP 5W-40 is manufactured from high quality petroleum base stocks, carefully blended with selected additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact to skin, splashing into the eyes, ingestion or vapour inhalation. Special care is also recommended in handling used motor oils. A Service Data Sheet entitled "Safe Handling of Used Motor Oils" is available on request from your Imperial Oil Representative. Please refer to our Imperial Oil Material Safety Data Sheet for further information.

Note: This product is not controlled under Canadian WHMIS legislation.

1-2008

Due to continual product research and development, the information contained herein is subject to changes without notification. Additional important health and safety information on this product can be found in the Material Safety Data Sheet, which is available online at www.imperialoil.ca/mobil or by contacting Lubricants and Petroleum Specialties, Technical Services, Technical Help Desk: 1-800-268-3183

© 2001 Imperial Oil
® The Mobil logotype and the Pegasus design are registered trademarks of Exxon Mobil Corporation.
™ Trademark of Exxon Mobil Corporation, Imperial Oil, Licensee.

