



Diesel Efficient™

Esso Diesel Efficient Product Data Sheet

Product Description

Esso Diesel Efficient diesel fuel helps improve fuel system performance in both on- and off-highway applications. The advanced fuel has been engineered to improve diesel fuel economy and boost engine performance, and has been tested in multiple real-world applications.

Features and Benefits

Esso Diesel Efficient fuel contains a patented additive technology that is specially designed to clean up both internal injector deposits and nozzle coking deposits. Today's diesel engines have sophisticated fuel systems engineered to meet stringent emissions requirements. Deposits that form inside the fuel injectors can impede the movement of the needle, and cause early failure of the injectors. Deposits building up inside the injector nozzle can restrict fuel flow, deteriorate the fuel spray quality and result in loss of engine power, increased emissions and reduced fuel economy. Esso Diesel Efficient fuel helps to prevent deposit formation and clean up existing deposits that may be damaging your engine performance. Further, Esso Diesel Efficient fuel offers fuel system corrosion protection. Esso Diesel Efficient fuel can also help to prevent premature fuel filter plugging.

Features ¹	Advantages and Potential Benefits
Improved injector cleanliness	Enhanced fuel system performance, improved engine power and responsiveness, and prevention of premature injector failure
Improved fuel economy	Lower fuel costs and reduced greenhouse gases (CO ₂) emissions
"Keep clean" performance	Prevents the accumulation of internal and external injector deposits which assists in maintaining fuel system performance
Corrosion protection	Reduced rusting of critical fuel system components
Improved fuel filter filterability	Avoid premature fuel filter plugging

¹Applies to Esso Diesel Efficient diesel fuel compared to diesel fuel without detergent additive. Vehicle testing showed an average fuel economy improvement of 2%. Actual benefits will vary depending on factors such as vehicle type, driving style and diesel fuel previously used.

Applications

Esso Diesel Efficient fuel is designed to provide benefits in all types of applications with light, medium and heavy duty diesel engines from different manufactures, including but not necessarily limited to light duty passenger cars, on-highway heavy duty trucks and off-road construction/mining equipment. Esso Diesel Efficient fuel is specifically recommended for the latest engines with high pressure injection systems, including those with high pressure common rail (HPCR) injection.

Esso Diesel Efficient fuel with ultra-low sulfur level is compatible with today's advanced emission after treatment systems including Diesel Oxidation Catalyst (DOC), Diesel Particulate Filter (DPF), Exhaust Gas Recirculating (EGR), and Selective Catalyst Reduction (SCR) and Lean NOx Trap (LNT) technologies.

Specifications

Esso Diesel Efficient fuel meets the requirements of: **CAN/CGSB-3.517** and **CAN/CGSB-3.520**

Esso Diesel Efficient Fuel Typical Properties

Property	Units	Typical Range	Test Methods ASTM
Distillation Temperature, 90% recovered, maximum	°C	290-360	D86
Kinematic Viscosity, 40 °C , min-max depending on operability temperature	mm ² /s	1.3 – 4.10	D445, D7042
Flash Point, minimum	°C	40	D93, D3828
Cetane Number, minimum		40	D613, D6890, D7170
Micro Carbon Residue, maximum	%mass	0.1-0.2	D4530
Copper Corrosion, 3 hr @50°C, maximum		No. 1	D130
Lubricity		Satisfactory	CAN/CGSB3.517
Sulphur, maximum	mg/kg	15	D5453, D7039
Total Acid Number, maximum	mg KOH/g	0.1	D974
Ash, maximum	%mass	0.010	D482
Water & Sediment, maximum	%mass	0.02	D1796(mod), D2709
Cloud point, maximum	°C	As per seasonal requirement	D2500, D5773
Electrical conductivity, minimum	pS/m	25	D2624

Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local Esso contact or visit www.esso.ca/diesel-efficient.com

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