



## Product Data Sheet

# ESSO GEAR OIL LS 80W-90

## AUTOMOTIVE GEAR OILS

February 2001

Esso Gear Oil LS 80W-90 is designed to protect gear operating in automotive applications requiring limited slip protection.

- ◆ Esso Gear Oil LS is a multi-service, extreme pressure, sulphur-phosphorus type gear oil, which is recommended for API service classification GL-5.
- ◆ Recommended for the manual transmission standard API MT-1.
- ◆ Recommended for service fill requirements for limited slip applications

### *Primary Applications*

Esso Gear Oil LS is a multi-service, non-corrosive type hypoid gear lubricant suitable for API service GL-5 applications. GL-5 is defined by the American Petroleum Institute as designating those lubricants suitable for the lubrication of gears, particularly hypoid gears, in passenger cars, trucks and other equipment operating under high speed, shock load; high speed, low torque; and low speed, high torque conditions.

Esso Gear Oil LS meets the manufacturer's recommendation for most manual transmissions, reducers, differentials, and final drives used in passenger cars, trucks, construction equipment, farm tractors and industrial equipment requiring API GL-5 performance level. Where the builders specify a heavy duty engine oil or a non-EP mineral gear oil, use MARVELUBE® Gear Oil 80W-90.

### *Performance Features*

#### **Score Protection**

Esso Gear Oil LS provides the EP score protection required for API service GL-5. This makes the oil suitable for all but the most severe gear applications.

#### **Thermal Stability & Oxidation Resistance**

Excellent oxidation and thermal stability provide protection against deterioration and sludging. This enhances gear box cleanliness.

**Multi-Temperature Service**

Esso Gear Oil LS 80W-90 is suitable for winter performance

**Non-Corrosive**

Esso Gear Oil LS is non-corrosive towards brass, bronze or copper components used in bushings, thrust washers and clutch plates.

**Filterability**

The use of only soluble additives enhances lubricant filterability.

**Seal Compatibility**

Esso Gear Oil LS can be used with seals commonly found in manual transmissions, gear boxes and final drives.

**Foam Protection**

A special inhibitor is blended into Esso Gear Oil LS to minimize foaming and air entrainment during operation.

**Compatibility**

To maintain the limited performance of Esso Gear Oil LS, it should not be mixed with GX and GX Extra. However, mixing will not degrade the GL-5 performance and there will be no compatibility issues.

**Storage Stability**

The soluble additive system used in Esso Gear Oil LS will not separate under normal storage conditions.

**Precautions**

Esso Gear Oil LS is manufactured from quality petroleum base stocks, blended with selected additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact with the skin, splashing into the eyes, ingestion, or vapour inhalation. Please refer to the Esso Material Safety Data Sheet for further information.

Note: This product is NOT controlled under the Canadian WHMIS legislation.

**Typical Properties**

<b>Esso Gear Oil LS</b>	<b>80W-90</b>
Density @ 15 °C	887
Flash, COC, °C	165
Kinematic Viscosity	
cSt @ 40 °C	145
cSt @ 100 °C	15.8
Viscosity Index	113
Brookfield Viscosity, cP @ -26°C	90,000
Pour Point, °C	-27
Channel Point, °C	<-35
Colour	1.5

*The values shown above are representative of current production. Some are controlled by manufacturing and performance specifications while others are not. All may vary within modest ranges.*