



## DIOL™ 40 and 20W40

Mobil Commercial Vehicle Lube , Canada

Railroad Crankcase Oils

### Product Description

DIOL™ series oils are premium heavy-duty crankcase lubricants for locomotive diesel engines. These products were developed to meet the stringent performance requirements of Tier 4 locomotives from Progress Rail (EMD engines) and GE Transportation. Older locomotive engines will also benefit from using the DIOL series. The additive system provides excellent engine protection, enhanced oxidation performance, improved oil consumption control, enhanced Alkalinity / TBN retention, and oil drain interval extension capability compared with LMOA generation 6 oils such as our former Diol 9 RD series.

### Features and Benefits

- Zinc Free - Excellent Silver Bearing Corrosion Protection
- Enhanced Oxidation, Sludge-Soot Handling and Viscosity Control
- Excellent Deposit, Corrosion and Wear Control
- Formulated for use with low sulfur and ultra-low sulfur diesel fuels
- Chlorine Free

### Applications

DIOL 40 and 20W-40 oils are formulated to an LMOA Generation 7 quality level with formal approvals from GE transportation and Progress Rail diesel locomotives. The DIOL product line incorporates a field proven additive technology that offers enhanced oxidation performance and wear inhibitors. This addresses the deleterious effects of lower oil consumption and engine modifications in the Tier 4 locomotive engines, while being backward compatible with older engine technologies (Tier III and lower). The DIOL series offers excellent Alkalinity / TBN retention, oxidation and thermal stability, and acid control.

### Specifications and Approvals

This product has the following approvals:	DIOL 40	DIOL 20W-40
LMOA Gen 7 - Fundamental Approval (letter on file)	X	X
Progress Rail Worthy of Field Test (recognition letter on file)	X	X

### Properties and Specifications

Property	DIOL 40	DIOL 20W-40
Grade	SAE 40	SAE 20W-40
Base Number, mgKOH/g, ASTM D2896	10	
Flash Point, Cleveland Open Cup, °C, ASTM D92	227	259
Kinematic Viscosity @ 100 C, mm <sup>2</sup> /s, ASTM D445	14.2	15.4

Property	DIOL 40	DIOL 20W-40
Kinematic Viscosity @ 40 C, mm <sup>2</sup> /s, ASTM D445	137.7	132.9
Pour Point, °C, ASTM D97	-24	-33
Total Base Number, mgKOH/g, ASTM D2896		10
Viscosity Index, ASTM D2270	100	120
Zinc, ppm, ASTM D4951		<10
Zinc, mg/kg, ASTM D5185	<10	

## Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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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 ExxonMobil contact or visit [www.exxonmobil.com](http://www.exxonmobil.com)

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