



# CITGO RD-2069 LE Diesel Engine Oil

## OVERVIEW



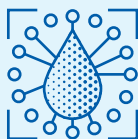
- A new-generation railroad diesel engine oil that supports the EPA Tier 4 emissions requirements and is engineered for performance in railroad locomotive diesel engines and other medium-speed stationary and marine diesel engines of similar design.
- Formulated with the latest generation of additive technology advancements with a proven track record of providing superior lubrication in a variety of diesel engines used in coastal and inland marine service.
- Approved for LMOA Generation 7 (supersedes the performance requirements of LMOA Generation 6). Uses Oronite OLOA 42015 additive system.

## FEATURES & BENEFITS



- Improved detergent/dispersant dramatically improves cleanliness, with outstanding protection from deposits.
- Superior oxidation/nitration inhibition and thermal stability prevent excessive viscosity increase.
- 11 TBN designed for low and ultra-low sulfur fuels
- Non-zinc formulation protects silver bearing materials.
- Non-chlorinated to reduce cost of recycling used oil.
- High viscosity index base improves oxidation resistance and low-temperature performance.
- Maximum oil drain intervals.
- Enhanced particulate matter emissions control.
- Improved fuel economy versus single grade engines oils.
- Better cold-temperature start-up lubrication versus single-grade engine oils.
- Approved for LMOA Generation 7 (Supersedes LMOA Generation 6).

## APPLICATIONS



- Meets the performance requirements of General Electric Transportation (GE) for Tier 4 locomotives and older models.
- Meets the performance requirements of Progress Rail (formerly EMD) Tier 3 locomotives and older models.

**PROPERTIES****Typical Properties for CITGO RD-2069 LE Diesel Engine Oil:**

<b>SAE Grade</b>	<b>20W-40</b>
Material Code	649281001
Gravity, ASTM D4052, °API	28.7
Gravity, ASTM D1298, Specific 60/60°F	0.8820
Density, lbs./gallon	7.34
Flash Point, ASTM D92, COC, °F (°C)	496 (258)
Viscosity, ASTM D445	
cSt at 40°C	140
cSt at 100°C	15.2
Viscosity Index, ASTM D2270	110
ASTM D5293, CCS, cP at -15°C	7,800
Pour Point ASTM D97, °F (°C)	-27 (-33)
Color, ASTM D1500	L4.5
Sulfated Ash, ASTM D874, m%	1.15
Total Acid No., ASTM D664, mg KOH/g	0.7
Total Base No., ASTM D2896, mg KOH/g	11
Zinc, ppm	<10
Chlorine, ppm	<50

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