



# Gulf Dieselmotive 473

*Zinc-free railroad engine oil*

## Product Description

**Gulf Dieselmotive 473** is zinc-free oil specially designed for railroad diesel locomotive engines. It is formulated with carefully selected additives to provide excellent detergency, dispersancy, good filterability, excellent oxidation stability and ins service TBN retention. The zinc-free formulation technology used in this oil makes it suitable for lubrication of engines with silver alloy bearings also. It is available in SAE 40 viscosity grade and exceeds the performance requirements of Locomotive Maintenance Officers Association (LMOA) Generation 4 and API CF/CF-2.

## Features & Benefits

- Excellent detergency/dispersancy provides superior engine cleanliness
- Excellent in-service retention of TBN facilitates extended drain intervals
- High oxidation stability minimizes sludge and deposit formation
- Zinc-free formulation protects silver bearings against corrosion

## Applications

- Railroad diesel locomotive engines of Electromotive Division (EMD), General Electric (GE) and American Locomotive Company (ALCO) specifying LMOA Generation 4 oils
- Marine and stationary engines for power generation or off-shore drilling requiring zinc-free oils
- Detroit Diesel 149 series engines operating under severe conditions
- Stationary engines requiring API CF and CF-2 quality oils

## Specifications, Approvals & Typical Properties

Meets the following Specifications		
LMOA Generation 4		
API CF, CF-2		
Typical Properties		
Test Parameters	ASTM Method	Typical Values
Viscosity @ 100 °C, cSt	D 445	15.0
Viscosity Index	D 2270	97
Flash Point, °C	D 92	246
Pour Point, °C	D 97	-18
TBN, mg KOH/g	D 2896	13.3
Density @ 15°C, Kg/l	D 1298	0.901
Sulphated Ash, %wt	D 874	1.60
Zinc, ppm	ICP	< 10

Properties mentioned are typical only and minor variations, which do not affect product performance, are expected to arise in normal manufacturing processes. Please follow equipment manufacturer's recommendations for performance level and viscosity grade. The Safety Data Sheet for this product is available from your nearest Gulf Distributor. Please consult our local representative if any further information is required.

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