

## EMD/TRANS OIL

**MARINE & RAILROAD | [HVI BASE+ TBN 9]**

### Product Description

Outstanding high-dispersancy crankcase oil with reserve alkalinity for railroad and marine diesel engines. Compounded from HVI Base (Paraffinic) oils. This formulation includes detergent, dispersant, antiwear/EP agent, antioxidant, corrosion inhibitor, and foam suppressant additives. The additive system does NOT contain zinc-compounded derivatives and is classified as zinc-free with less than 10 ppm zinc in the final formulation. It is also non-chlorinated.

### Applications

Recommended for use in Electro-Motive Division of General Motors Corporation (EMD), Caterpillar, and General Electric Generation IV, as well as LMOA Generation V and VI engines. Suitable for diesel engines operating on low-sulfur distillate fuel with a sulfated ash level of 1.0%. Meets API Service Classification Level CD and is compatible with all two- and four-cycle, turbocharged and naturally aspirated railroad diesel engines using distillate fuels where zinc-free additive systems and HVI base oils are preferred. Also recommended for EMD and GE engines used in marine and stationary power generation systems with similar lubrication requirements.

### Typical Properties

| Property                | 20W-40 | 40   |
|-------------------------|--------|------|
| Viscosity @ 40°C (cSt)  | 126    | 182  |
| Viscosity @ 100°C (cSt) | 14.8   | 14.6 |
| Viscosity Index         | 120    | 73   |
| Flash Point °F (COC)    | 455    | 465  |
| Pour Point °F           | -5     | 0    |
| TBN (ASTM D2896)        | 17     | 17   |
| Sulfated Ash %wt        | 1.7    | 1.7  |
| Zinc Content (ppm)      | <10    | <10  |
| API Gravity @ 60°F      | 26.5   | 24.0 |

\*The values shown are typical of current production. Some are controlled in the manufacturing process while others are not. All of them may vary within tolerable ranges.