

## MARINÖL Marine Oil 4T SAE 10W-40 CI-4

### Product Description

**MARINÖL MARINE 4T SAE 10W-40 CI-4** is a high-performance marine diesel engine oil formulated with synthetic technology and advanced additive chemistry to deliver excellent engine cleanliness, wear protection, and long-term thermal stability. Designed specifically for 4-stroke marine diesel engines, it provides outstanding performance in engines operating under heavy load and in high-humidity saltwater environments. Compatible with engines equipped with turbochargers and emission control systems.

### Product Features & Benefits

- **Outstanding Wear Protection:** Protects engine components under constant high load
- **Excellent Detergency:** Keeps pistons and internal parts clean from carbon and sludge
- **Corrosion Protection:** Formulated to resist rust and oxidation even in salt air/moisture
- **High Thermal Stability:** Resists oil breakdown at high engine temperatures
- **Reliable Cold Start Performance:** Maintains flow and protection in cold marine starts
- **Compatible with Emission Systems:** Low enough ash for safe operation with most after-treatment systems

### Application

- Designed for 4-stroke marine diesel engines, naturally aspirated or turbocharged
- Suitable for onboard propulsion engines and marine auxiliary power units
- Can be used in small commercial boats, fishing vessels, leisure craft, and harbor vessels

### PERFORMANCE STANDARDS

- API CI-4 / SL
- ACEA E7 (where applicable)
- Meets manufacturer requirements for marine engines requiring CI-4 or earlier

### Recommended For

- Inboard and outboard 4-stroke marine engines requiring API CI-4 performance
- Marine diesel engines from Yanmar, Volvo Penta, Perkins, Cummins, Caterpillar, MAN, and others
- High-load engines operated in humid, corrosive, and saltwater environments

### Typical Properties by Viscosity Grade

Property	Method	Typical Result
SAE Viscosity Grade	SAE J300	10W-40
Appearance	Visual	Bright, Clear Amber
Density @ 15 °C	ASTM D4052	0.865 g/cm <sup>3</sup>
Kinematic Viscosity @ 40 °C	ASTM D445	94 mm <sup>2</sup> /s
Kinematic Viscosity @ 100 °C	ASTM D445	14.5 mm <sup>2</sup> /s
Viscosity Index	ASTM D2270	160
Pour Point	ASTM D97	-36 °C
Flash Point (COC)	ASTM D92	230 °C
Total Base Number (TBN)	ASTM D2896	10.5 mg KOH/g
Sulfated Ash	ASTM D874	1.2 % wt
HTHS Viscosity @ 150 °C	ASTM D5481	≥3.5 mPa·s
Evaporation Loss (Noack)	CEC-L-40-A-93	12.5 %



## **STORAGE & HANDLING**

- Store in a clean, dry, and covered area
- Protect from water, dust, and extreme temperatures
- Keep containers tightly sealed when not in use

## **Health, Safety, and Environment**

- Avoid prolonged skin contact with used oil
- Use gloves and wash hands thoroughly after use
- Dispose of used oil responsibly through authorized centers
- Refer to Safety Data Sheet (SDS) for full HSE information

