



DATA SHEET

# HEAVY-DUTY, EXTENDED LIFE, NITRITE-FREE ANTIFREEZE

## Ethylene Glycol OAT Antifreeze

Our heavy-duty extended life nitrite-free antifreeze is an organic acid technology (OAT) antifreeze/coolant for heavy-duty diesel applications. It contains a proprietary inhibitor technology that is free of nitrite, phosphate, silicate and borate.

### YEAR-ROUND PROTECTION

The product provides year-round protection against freeze-ups, boil-overs and engine cooling system corrosion without the use of supplemental coolant additives.

This antifreeze offers excellent heat transfer capabilities and high temperature protection for systems that contain aluminum alloys. Recommended for use in all heavy-duty applications, including systems that have controlled atmosphere brazed (CAB) radiators. In addition, this formulation provides excellent protection against wet sleeve liner pitting.

### EXTENDED SERVICE LIFE

In heavy-duty applications, it provides up to 600,000 miles on-highway or up to 12,000 hours off-road service, when a well-

established monitoring program is in place for testing coolant at least twice a year. Coolant extender is generally needed at half-life (300,000 miles or 6,000 hours) and may be added based on results from coolant sample analysis.

### BENEFITS

- Available in concentrate and premix 50/50
- All-season formulation cools engine in summer and protects from freezing in winter
- Works in all heavy-duty diesel and compressed natural gas engine cooling systems requiring conventionally inhibited heavy-duty coolants
- Does not contain 2-ethylhexanoic acid
- Meets the performance requirements of:
  - TMC ATA RP 329
  - TMC ATA RP 338A
  - ASTM D6210
  - ASTM D3306
  - ASTM D1384
  - ASTM D4340
  - ASTM D2570
  - ASTM D2809

### APPLICATIONS

- John Deere
- PACCAR
- Volvo/Mack
- Caterpillar
- Cummins CES14603
- Detroit Diesel 93K217
- MAN 324 Type SNF
- MTU 5048
- Mercedes DBL 7700
- Navistar CEMS B-1 Type IIIA
- Hino Trucks

## Heavy-Duty, Extended Life, Nitrite-Free Characteristics

Characteristic	Specification	Company Typical	ASTM Method
<b>Chloride (ppm)</b>	25 Maximum	<5	D3634
<b>Specific gravity, 60°F</b>	1.065 min	1.070	D1122
<b>Effect on engine/vehicle finish</b>	No effect	Pass	D1882
<b>Boiling Point, 50% V/V</b>	226°F/107°C min	230°F	D1120
<b>Freezing Point, 50% V/V</b>	-34°F/-36°C min	-34°F	D1177
<b>Ash content, mass %</b>	2.5 Maximum	<2.5	D1119
<b>pH, 50% V/V</b>	8.0-9.0	8.5	D1287
<b>Reserve alkalinity, 50% V/V</b>	None specified	3.0 min	D1121
<b>Color</b>		Yellow	Visual
<b>Foaming</b>	150 mL max 5 seconds max	Pass	D1881

\*Boiling point shown above and below is at atmospheric pressure. Add 40°F for 15 psi radiator cap. Reserve alkalinity (RA) is a value agreed between the customer and supplier.

% PG (Volume)	Freezing Point		Boiling Point*	
	°F	°C	°F	°C
40%	-9 max	-22 max	220 min	104 min
50%	-34 max	-36 max	226 min	107 min
60%	-54 max	-65 max	230 min	110 min

Check the vehicle manufacturer's recommendations or the owner's manual when servicing the cooling system, including coolant selection, top off, and maintenance.

\*Boiling point shown at atmospheric pressure. Add 40°F for 15 psi radiator cap.