



Clear Choice Antifreeze  
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# Clear Choice GoldPlus Antifreeze

- **Prediluted, 50/50, Precharged, Extended Life, Universal, Hybrid Organic Acid Technology (HOAT), Low-Silicate Antifreeze Concentrate**
- **Formulated to be Compatible with Most Types of Antifreeze**

This prediluted, 50/50 antifreeze/coolant is a universal/global, hybrid organic acid technology (HOAT), extended life, low-silicate, phosphate-free product suitable for automotive/light duty and heavy duty diesel applications. This product was formulated to meet ASTM D3306, D4985 and D6210/11. Since this is a HOAT extended life antifreeze/coolant it combines organic acid salts with conventional inorganic salts and azoles; this makes it compatible with all types of both extended life and conventional technology antifreeze/coolants.

This coolant is precharged, meaning that it contains a minimum of 1200 ppm nitrites. Its additives effectively control wet sleeve cylinder liner pitting/corrosion in heavy duty diesel engines. The primary corrosion inhibition system consists of a combination of salts of carboxylic and phosphono-carboxylic acids. These inhibitors deplete very slowly relative to conventional inorganic salt compounds, providing the extended service life of this antifreeze. It utilizes a low-silicate level (less than 250 ppm as silicon) and is free of phosphates (<15 ppm) and amines.

In automobiles, light trucks, SUV's, vans and other light duty applications, this product will provide a service life in excess of 5 years or 150,000 miles. In heavy-duty diesel applications, it can provide a service life of 600,000 miles with the addition of our heavy-duty supplemental coolant additive at 300,000 miles.

This extended-life antifreeze/coolant concentrate meets the following industry specifications:

- ASTM D3306 (automotive/light-duty)
- ASTM D4985 (heavy-duty diesel/low silicate)
- ASTM D6210/11 (fully formulated and precharged)
- ASTM D1384, D4340
- TMC of ATA RP 338
- Federal Specification A-A-870A
- Caterpillar EC-1
- Caterpillar ELC
- Cummins CES14603 (as found in service bulletin 3666132-02)
- Detroit Diesel 7SE298; DDC
- Powercool Plus and DDC
- Powercool Plus 6000
- Mercedes Blatt 325.0 & 325.2
- Audi
- Saab 6901 599
- Volvo 014 GS 17009
- MTU MTL5048, MTL 5049
- Mazda MEZ MW 121D
- Suzuki OF02
- Isuzu
- Toyota
- Porsche TL-774D
- Mitsubishi
- Honda HES D2009-75
- Hyundai
- TMC of ATA RP 329/330
- Federal Specification A-A-870A
- Navistar/International B-1
- Type III (CEMS B-1)
- SAE J1034, J814
- GM 1825M, 1899M
- GM 6277M
- Ford WSS M97B51-A1
- Ford WSS M97B44-D
- Ford WSE M97B44-B
- Ford ESE M97B44-A
- Ford WSN M97B18-D
- Chrysler MS9769, MS7170
- Daimler-Chrysler Automotive
- VW TL774F (G12)
- BMW

% Antifreeze	Freezing Point		Boiling Point*	
	°F	°C	°F	°C
40%	-12 max	-24 max	260 min	126 min
50%	-34 max	-36 max	265 min	128 min
70%	-90 max	-67 max	270 min	135 min

\*Boiling point shown using conventional 15 psi radiator cap.

## PHYSICAL PROPERTIES

Antifreeze Glycols	mass %	48.0 min.
Corrosion Inhibitors	mass %	1.1
Water	mass %	49.0 max.
Flash Point	°F	None
Weight per gallon at 60°F - 16°C	lbs.	8.9 min.
Silicon	ppm	< 125 typical
Phosphate	ppm	10 max.

Used antifreeze coolant in most states is not hazardous unless it contains more than 5 ppm of lead. Ethylene glycol can be reclaimed indefinitely. We recommend that spent coolant never be disposed of by dumping into a storm sewer or onto the ground. Instead, contact Clear Choice Antifreeze at 303-227-9900 for info on how to properly dispose of this coolant and protect our environment.

Characteristic	ASTM Specifications	Company Typicals	ASTM Method
Chloride	25 ppm, max.	<25	D3634
Silicon	125 ppm, max. (ASTM)	< 125	Ion Chromatograph
Nitrite	1200 ppm min.	1300	D5827
Specific gravity, 60/60°F	1.065 min.	1.065	D1122
Freezing Point, 50% V/V	-34°F/-37°C min.	-34°F/-36°C	D1177
Boiling Point, 50% V/V	226°F/107°C min.	226°F/107°C	D1120
Effect on engine or vehicle finish	no effect greater than DI water	no effect	-
Ash content, mass %	2.5 max.	< 2	D1119
pH, 50% V/V	7.5 - 11.0	9.0 - 10.5	D1287
Reserve alkalinity*	none specified	3 min.	D1121
Water mass %	none specified	49.0 max.	D1123
Color	distinctive	dyed or colorless	-
Storage stability	pass	pass	-
Foaming	150 ml vol., max. 3 sec. break, max	35 ml 1.5 sec.	D1881 D1881

\* Reserve alkalinity (RA) is a term used to indicate the amount of alkaline inhibitors present in an antifreeze formulation. It is incorrect to relate a high RA with a high-quality antifreeze. Present, state-of-the-art antifreeze formulations contain many new inhibitors which give added protection to certain metals but do not raise the RA numbers.

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