



Arctic Wave R

Heavy-Duty OAT Extended Life Antifreeze/Coolant Concentrate

Industry Standards

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

- ASTM D3306
(automotive/light-duty)
- ASTM D4985
(heavy-duty diesel/low silicate)
- ASTM D6210
(fully formulated and precharged)
- TMC of ATA RP 329/330*

*The Maintenance Council of the American Trucking Assoc. Antifreeze also meets the non-phosphate requirements of European OEM's and non-silicate requirements of Japanese OEM's



Arctic Wave R appearance

Arctic Wave R is a heavy-duty extended life antifreeze/coolant and contains a proprietary poly-organic/multi-organic acid technology inhibitor system that does not contain any phosphate, silicate, borate, nitrate or nitrite. **Arctic Wave R** meets the performance requirements of ASTM D6210 without nitrite or nitrite/molybdate combination. It does not require a supplemental coolant additive (SCA) for heavy-duty fleet maintenance programs, but still provides wet sleeve cylinder liner cavitation protection due to its unique formulation.

A major advantage of this type of antifreeze is that it provides total cooling system protection for 600,000 on-road miles without the use of additive-containing coolant filters or supplemental coolant additives (SCA's). The addition of an extender at 300,000 miles is the only maintenance required, although, it is recommended that a sample of the coolant be inspected quarterly to detect any problems such as significant color change, pH change, phase separation, precipitation, cloudiness, or obvious contamination. This inspection should be in addition to the parameters that are normally checked in a routine or scheduled maintenance program.

Arctic Wave R is an all-organic/poly-organic acid formulation has several other advantages. It is compatible with all types of coolant technologies including conventional inorganic acid salt formulations, straight organic acid (OAT) formulations, hybrid organic acid formulations (HOAT), nitrated HOAT formulations (NOAT) and other poly-organic acid formulations. Additionally, **Arctic Wave R** has a low reactivity which makes it less sensitive to contaminants such as motor oil, hard water compounds and other coolants. In fact, it can be mixed with other coolants in any proportion without adverse effects on corrosion protection.

Arctic Wave R is suitable for passenger cars, vans, SUVs, light trucks, heavy-duty fleet vehicles and many off-road applications such as stationary engine cooling systems. It will provide superior corrosion protection for all cooling system metals, including aluminum, steel, cast iron, copper, brass and solder.

Arctic Wave R is available in 55 gallon drums and 275 gallon totes.

PHYSICAL PROPERTIES

Antifreeze Glycols	mass %	95.0
Water & Corrosion Inhibitors	mass %	5.0
Flash Point	°F	250°F
Weight per gallon at 60° F-16° C	lbs.	9.17-9.37
Silicates	mass %	Nil

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% Antifreeze	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
70%	-84 max	-64 max	240 min	115 min

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

Characteristic	Specification	Typical	ASTM Method
Chloride	25 ppm, max.	2	D3634
Specific gravity, 60/60°F	1.110-1.145	1.120	D1122
Boiling Point, undiluted	325°F/162°C min.	328	D1120
Boiling Point, 50% V/V	226°F/107°C min.	230	D1120
Freezing Point, 50% V/V	-34°F/-36°C min.	-34	D1177
Effect on engine or vehicle finish	No effect	Pass	--
Ash content, mass %	2.5 max.	2.0	D1119
pH, 50% V/V	8.0-9.0	8.7	D1287
Reserve alkalinity	None specified	8	D1121
Water mass %	None specified	2.3 max.	D1123
Color	Distinctive	Red	--
Effect on nonmetals	No adverse effect	Pass	--
Storage stability	None specified	> 1 year	--
Foaming	150 ml vol., max. 5 sec. break, max.	Pass	D1881

NOTE: Used antifreeze coolant in most states is not hazardous unless it contains more than 5 ppm of lead. We recommend that spent coolant never be disposed of by dumping into a storm sewer or onto the ground. Instead, contact your local municipality for instructions on where to and how to properly dispose of this coolant and protect our environment.