



Heavy Duty-Long Life Antifreeze/Coolant CONCENTRATE

RED

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 D6210/11 (fully formulated and precharged)
- TMC of ATA RP329/338 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

OEM Specifications

- Ford WSS-M97B51-A1
- Caterpillar EC-1
- Caterpillar ELC (with the addition of molybdate per specification)
- Cummins CES14603 (as found in service bulletin 3666132-02)
- Detroit Diesel 7SE298
- Navistar/International B-1, Type III (CEMS B-1), with the addition of molybdate MIL-CID-A-A-52624A

*Standards listed are per March 2013

Summit Heavy Duty Extended Life antifreeze/coolant concentrate formulation that contains hybrid organic acid technology (HOAT), and is low-silicate and phosphate free. The antifreeze is suitable for both automotive, light duty and heavy duty diesel applications. Since this product is a HOAT extended life antifreeze/coolant it combines organic acid salts with conventional inorganic salts and azoles which makes it compatible with all types of antifreeze, both extended life and conventional coolants.

Heavy Duty Extended Life antifreeze is precharged, meaning that it contains a minimum of 2400 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 and amines.

In addition, Heavy Duty Extended Life contains inhibitors that provide protection for all cooling system metals. Combined with the glycol base, these inhibitors give year-round protection against freeze-ups, boil-overs and engine cooling system corrosion. The product also includes ingredients to disperse minor oil leakage, prevent fouling, control hot surface scaling and it will not damage auto finishes or rubber parts.

In automobiles, light trucks, SUV's, vans and other light duty applications, The product will provide a service life in excess of 5 years or 150,000 miles. In heavy-duty diesel applications (in which a formal monitoring and maintenance program is in place) it can provide a service life of 600,000 miles with the addition of a heavy-duty supplemental coolant additive at 300,000 miles.

PHYSICAL PROPERTIES		
Antifreeze Glycols	mass %	95.0
Corrosion Inhibitors	mass %	5.0
Water	mass %	2.8 max
Flash Point	°F	250°F
Weight per gallon	lbs. @ 70°F	9.25-9.40
Silicates	mass %	<250 ppm

% Antifreeze	Freezing Point		Boiling Point	
	°F	°C	°F	°C
40%	-9 max	-22 max	260 min	126 min
50%	-34 max	-36 max	266 min	130 min
70%	-84 max	-64 max	280 min	138 min

*Boiling point shown using conventional 15 psi radiator cap.

Contact Information

SUMMIT LUBRICANTS
1320 1st Street
Rock Island, IL 61201



**Extended Life Heavy Duty
Antifreeze/Coolant
CONCENTRATE**

RED

Characteristic	Typical Physical Characteristics	ASTM Method
Chloride	25 ppm, max.	D3634
Specific gravity, 60/60°F	1.110-1.125	D1122
Nitrite	2400 ppm min.	D5827
Boiling Point, undiluted	325°F/162°C min.	D1120
Boiling Point, 50% V/V	226°F/107°C min.	D1120
Freezing Point, 50% V/V	-34°F/-36°C min.	D1177
Effect on engine or vehicle finish	No effect	--
Ash content, mass %	2.5 max.	D1119
pH, 50% V/V	9.5-10.5	D1287
Reserve alkalinity*	6 min.	D1121
Water mass %	2.8 max.	D1123
Color	Red	--
Effect on nonmetals	No adverse effect	--
Storage stability	> 1 year	--
Foaming	150 mi vol., max. 5 sec. break, max.	D1881
<p><i>*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 high-quality antifreeze. Many antifreeze formulations contain new inhibitors which give added protection to certain metals but do not raise the RA numbers.</i></p>		

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.