

PRODUCT INFORMATION



VALVOLINE™ ZEREX™ FULLY FORMULATED HEAVY-DUTY ANTIFREEZE COOLANT

Valvoline ZEREX Fully Formulated Heavy Duty Antifreeze Coolant is a complete ethylene glycol-based formulation specifically designed for heavy duty diesel engines. The formulation is precharged with specific chemical inhibitors to protect diesel engines from liner pitting and hard water scale deposits. The patented* inhibitor chemistry protects all cooling system metals from corrosion including aluminum. **ZEREX Fully Formulated HD** can be used in gasoline engines and passenger cars as well. The ASTM test data shown on this sheet reflects the high-performance corrosion inhibitor package.

When diluted 50% with water, **ZEREX Fully Formulated HD** protects modern engines from winter freezing and summer boil over. The chart below provides mixing information. Clean tap water or demineralized water is recommended for dilution. A 40% to 70% concentration range is suggested for optimum corrosion protection. **ZEREX Fully Formulated HD** is compatible with major brands of ethylene glycol-based coolant. It contains a high quality defoamer and will not harm gaskets, hoses, plastics, or original vehicle finishes.

Valvoline ZEREX Fully Formulated Heavy Duty Antifreeze Coolant is a universal engine coolant that meets the low silicate formulation requirements of GM6038 and contains less than 250 parts per million of silicate as required by the heavy-duty trucking industry.

Call 1-800- TEAM-VAL with questions

Valvoline ZEREX Fully Formulated Heavy Duty Antifreeze Coolant is formulated to meet or exceed the following antifreeze specifications:

ASTM D6210
ASTM D3306
Case New Holland
CAT
Cummins
Detroit Diesel
Federal Specifications A-A-870-A
Federal Specifications A-A-52624
Freightliner
GM 1825M
GM 1899M

MACK
Navistar CEMS B-1 TYPE II
Paccar R026-170-97
Peterbilt 07-06773
SAE J 1034
SAE J 1941
SAE J 814
TMC of ATA RP-302A
TMC of ATA RP-302B
TMC of ATA RP-329B
Waukesha

Valvoline recommends that spent coolant never be disposed of by dumping into a septic system, storm sewer or onto the ground. Instead, contact your state or local municipality for instructions on where to and how to properly dispose of this coolant and protect our environment.

If any coolant is spilled onto the ground, contain the spill and call the state authorities and ask for proper instruction on how to clean up the spill.

*US Patents 4,548,787, 6,203,719, and 6,228,283

ZEREX Fully Formulated Heavy Duty Antifreeze/Coolant Boil/Freeze Protection		
% Antifreeze	Freezing Point, °F/°C	Boiling Point**, °F/°C
40	-12/-24	260/126
50	-34/-36	265/128
60	-54/-48	271/133
70*	-90/-67	277/135

* Maximum freeze protection is at 70%.

** Boiling point shown using conventional 15 psig radiator cap.

ZEREX Fully Formulated Typical Physical Properties		
Antifreeze Glycols	mass %	96.0
Corrosion Inhibitors	mass %	2
Water	mass %	2
Flash Point	°F/°C	250/121
Weight per gallon @ 60°F/16°C	lbs / KG	9.363 / 4.267
Silicates	PPM	250 max

ZEREX Fully Formulated Aluminum Water Pump Tests		
ASTM D2809 Pump Cavitation (Extended Test)		
Test Period	Results	Specification
100 hours	8	8

Characteristics	Specifications	Typicals	ASTM Method
Chloride	25 PPM, max.	<25	D3634
Silicon	250 PPM, max.	<250	-
Specific gravity, 60/60° F	1.110 – 1.145	1.1305	D1122
Freezing point, 50% V/V	-34°F/-36°C	-34°F/-36°C	D1177
Boiling point, undiluted	325°F/162°C	325°F/162°C	D1120
Boiling point, 50% V/V	226°F/107°C	226°F/107°C	D1120
Effect on engine or vehicle finish	No Effect	No Effect	-
Ash content, mass %	5 max	<3	D1119
pH, 50% V/V	7.5 – 11.0	10.4	D1287
Reserve alkalinity*	Report	7.0	D1121
Water mass %	5 max.	3	D1123
Color	Distinctive	Pink	-
Effect on nonmetals	No Adverse Effect	No Adverse Effect	-
Storage stability	-	> 1 year	-
Foaming	150 ml Vol., max.	45 ml	D1881
	5 sec. Break, max.	3 sec.	D1881
Cavitation-erosion rating	8 min.	10	D2809

*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 number.

Typical ASTM Corrosion Test Results			
	Weight Loss Mg/Specimen		
Glassware Corrosion Test	Spec.	Actual	ASTM Method
Copper	10	1	D1384
Solder	30	8	
Brass	10	1	
Steel	10	0	
Cast iron	10	0	
Aluminum	30	0	
Simulated Service Test			
Copper	20	3	D2570
Solder	60	15	
Brass	20	3	
Steel	20	1	
Cast iron	20	1	
Aluminum	60	3	
Hot Surface Corrosion	mg/cm ² /wk		
Specimen weight loss	1.0	0.1	D4340

This information only applies to products manufactured in the following location(s): USA, Canada, and Mexico

Part #	Product
813055	ZEREX Pink HD Fully Formulated AFC 55 GAL Drum
812970	ZEREX Pink HD Fully Formulated AFC 275 GAL Tote
812973	ZEREX Pink HD Fully Formulated Bulk
841943	ZEREX Pink HD Fully Formulated RTU AFC 6/1 GAL
813053	ZEREX Pink HD Fully Formulated RTU 55 GAL Drum
813054	ZEREX Pink HD Fully Formulated RTU 275 GAL Tote
812971	ZEREX Pink HD Fully Formulated Ready-To-Use AFC Bulk

Effective Date:
9/23/21

Author:
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