



# Technical Bulletin.

## Coolant for Warm Weather

Silicate & Phosphate Free Formula  
Offers superior heat transfer with  
limited freeze protection

Valvoline Anticongelante is the latest long life automotive engine coolant development from Valvoline. The patented\* carboxylate formulation has a service life of up to five years or 240,000 km. It incorporates state-of-the-art organic acid technology for protection of all cooling system metals including aluminum. Valvoline Anticongelante is water based and intended for use in warm climates where freeze protection is not needed.

Valvoline Anticongelante contains no phosphates, silicates, borates, nitrates, amines and nitrites. It's universal formulation meets the phosphate-free requirements of European automobile manufacturers and the silicate free requirement of Asian automobile manufacturers. It can be mixed with any American conventional glycol based coolant. It is dyed distinctively to distinguish it's special water based chemistry.

When used as is without further dilution. Valvoline Anticongelante protects modern engine components from summer boiling. The chart at the top right provides detailed freeze protection and boil protection information. Valvoline Anticongelante is storage stable for up to five years.. It contains a high quality defoamer and will not harm gaskets, hoses, plastics or original

Valvoline 5/240 Coolant Boil/Freeze Protection		
% Glycol 25	Freezing Point, °F/°C 10/-12	Boiling Point**, °F/°C 254/123

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

Typical Physical Properties		
Antifreeze Glycols	mass %	25
Corrosion Inhibitors	mass %	3.5
Water	mass %	balance
Flash Point	°F/°C	250/121
Weight per gallon @ 60°F/16°C	lbs./KG	8.613/3.907
Si from silicates	in PPM	10 max.
Phosphates	in PPM	30 max.

Aluminum Water Pump Tests		
ASTM D2809 Pump Cavitation		
Test Period	Results	Specification
100 hours	9	8

ASTM cavitation corrosion rating: 10 - perfect 1 - perforated

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 6,235,217 and 6, 126,852

# Valvoline

## Warm Climate Universal Coolant 5 years / 240,000 km

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Characteristic	Specifications	Valvoline® Typical	ASTM Method
Chloride	25 PPM, max.	<25	D3634
Silicon from silicate	10 PPM, max.	<10	-
Specific gravity, 60/60° F	1.01 - 1.14	1.0286	D1122
Freezing point, 50% V/V	10°F/-12°C	10°F/-12°C	D1177
Boiling point, as is	254°F/123°C	254°F/123°C	D1120
Effect on engine or vehicle finish	No Effect	No Effect	-
Ash content, mass %	5 max.	1.36	D1119
pH, 50% V/V	8.0 - 8.8	8.5	D1287
Reserve alkalinity*	Report*	4.8	D1121
Water mass %	72 max.	70.0	D1123
Color	Distinctive	Distinctive	-
Effect on nonmetals	No adverse effect	No adverse effect	-
Storage stability	-	5 years	-
Foaming	150 ml vol., max.	31.7 ml	D1881
	5 sec. Break, max.	3 sec.	D1881
Cavitation-erosion rating	8 min.	9	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	2	D1384
Solder	30	6	
Brass	10	3	
Steel	10	0	
Cast iron	10	0	
Aluminum	30	0	
Simulated Service Test			
Copper	20	2	D2570
Solder	60	5	
Brass	20	1	
Steel	20	1	
Cast iron	20	0	
Aluminum	60	0	
Hot Surface Corrosion	mg/cm <sup>2</sup> /wk		
Specimen weight loss	1.0	0.1	D4340
Electrochemical	MV		
Ford Pitting Test	-400	-120.7	FLTM BL5-1

This information only applies to products manufactured in the following location(s): USA.

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