

## Valvoline™ DEX-COOL® Concentrate Coolant

Valvoline™ DEX-COOL® Concentrate Coolant is a patented\* carboxylate formulation with a service life of up to five years or 240,000 kilometres (whichever comes first). It incorporates state-of-the-art organic acid technology in an ethylene glycol base for protection of all cooling system metals including aluminium. Valvoline™ DEX-COOL® Concentrate Coolant is approved by General Motors to the GM 6277M specification.

Valvoline™ DEX-COOL® Concentrate Coolant contains no phosphates, silicates, borates, nitrates, amines and nitrites. Its global formulation meets the phosphate-free requirements of European automobile manufacturers and the silicate free requirement of Asian automobile manufacturers like Toyota, Hyundai, Kia, Honda, Isuzu and others. It can be mixed with other approved DEX-COOL® coolant as it is approved by General Motors. It is dyed orange to distinguish its unique chemistry from traditional green and yellow silicate coolants.

When diluted 50% with demineralized water, Valvoline™ DEX-COOL® Coolant protects modern engine components from winter freezing and summer boiling. It contains a high quality defoamer and will not harm gaskets, hoses, plastics or original vehicle paint.

Valvoline™ DEX-COOL® is formulated to meet or exceed the following antifreeze specifications:

ASTM D3306	GM 6277M, GMW 3420
SAE J1034	DEX-COOL® <b>APPROVED</b>
SAE J1941	Federal Spec A-A-870A
SAE J814	Fiat Chrysler MS-12106
Ford WSS-M97B44-D	Simens Wind Turbines
Ford WSS-M97B44-D2	TMC of ATA RP-302B
Saab, Opel <b>Approved</b>	

### Applications

Valvoline™ Dex-Cool® Concentrate Coolant is designed for use in passenger cars, light duty and commercial petrol and diesel engines. Please consult owner's manual before use.

### Mixture Ratio Guide

Refer to vehicle cooling system requirements for correct mixture ratio.

Antifreeze Boil/Freeze Protection		
Antifreeze %	Freezing Point, °C	Boiling Point***, °C
50	-36	128

**Note:** Complete drain and flush of cooling system is always recommended. Mixing with light duty or conventional fully formulated coolants may diminish optimum performance and cooling system protection.

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### Features and Benefits

- GM Dex-Cool® Approved
- Protection for up to 5 years or 240,000 kms (whichever comes first)
- Utilises Organic Acid Technology (OAT) to minimize inhibitor depletion
- Patented formula contains no silicates, phosphates, borates, nitrates or amines
- Excellent rust and corrosion protection
- Helps prevents boil-over and freeze-up
- Protects mixed cooling system metals including aluminium

# PRODUCT INFORMATION



## Keeping the world moving since 1866™

Serving more than 100 countries around the globe, Valvoline is a leading marketer, distributor and producer of quality branded automotive and industrial products and services. Products include automotive lubricants including MaxLife™, the first motor oil specifically formulated for higher-mileage vehicles; transmission fluids; gear oils; hydraulic lubricants; automotive chemicals; specialty products; greases, and cooling system products.

For more information on Valvoline products, programs and services please visit [www.valvoline.com.au](http://www.valvoline.com.au) or contact the Technical Hotline on 1800 804 658 for product recommendations.

## Typical Properties and Characteristics

Typical property characteristics are based on current production. Whilst future production will conform to Valvoline™ specifications, variations in these characteristics may occur.

Valvoline™ DEX-COOL® Coolant Concentrate		
Physical Properties	Unit	Typical
Antifreeze Glycol	Mass %	93.5
Corrosion Inhibitor	Mass %	3.5
Water	Mass %	3
Flash Point	°C	121
Weight per gallon @ 16 °C	Lbs./KG	9.299/4.218
Silicate	PPM	10 max.
Phosphates	PPM	30 max.

Valvoline™ DEX-COOL® Coolant Concentrate			
Characteristic	Specifications	Typical	ASTM Method
Chloride	25 PPM, max.	<25	D3634
Silicon	250 PPM, max	<250	-
Specific gravity @ 15.6° C	1.110 - 1.114	1.112	D1122
Freezing point, 50% V/V	-36 °C	-37 °C	D1177
Boiling point, undiluted	162 °C	162 °C	D1120
Boiling point, 50% V/V	107 °C	107 °C	D1120
Effect on engine or vehicle finish	No Effect	No Effect	-
Ash content, mass %	5 max.	1.36	D1119
pH, 50% V/V	8.3 – 9.0	8.6	D1287
Reserve alkalinity*	Report	4.8	D1121
Water mass %	5 max.	3.0	D1123
Color	Distinctive	Red	-
Effect on nonmetals	No adverse effect	No adverse effect	-
Storage stability	-	5 years	-
Foaming	150 ml vol., max. 5 sec. break, max.	31.7 ml 3 sec.	D1881 D1881
Cavitation-erosion rating	8 min.	9	D2809

\*Reserve Alkalinity (RA) is a term used to indicate the amount of alkaline inhibitors present in 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

Valvoline™ DEX-COOL® Coolant Concentrate Aluminium Water Pump Tests		
ASTM D2809 Pump Cavitation (Extended Test)		
Test Period	Results	Specification
100 hours	9	8

ASTM cavitation corrosion rating: 10 – perfect    1 - perforated

# PRODUCT INFORMATION



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	
Aluminium	30	0	
Simulated Service Test			
Copper	20	2	D2570
Solder	60	24	
Brass	20	1	
Steel	20	1	
Cast Iron	20	1	
Aluminium	60	0	
Hot Surface Corrosion			
	mg/cm <sup>2</sup> /wk		
Specimen weight loss	1.0	0.1	D4340
Electrochemical			
	Minimum, mV		
Ford Pitting Test	>400	-120.7	FLTM BL5-1

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

Part Number	Pack Size
0937.05	5L
0937.20	20L
0937.28	208L

## Health and Safety

This product is not likely to present any significant health or safety hazards when used correctly in the right application. Safety Data Sheet (SDS) is available on request via your local sales office or 1800 804 658 or through our website [www.valvoline.com.au](http://www.valvoline.com.au)

## Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

## Storage

Storage We recommend storing all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60 °C, exposed to hot sun or freezing conditions.

## Author:

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