

HAVOLINE® XTENDED LIFE ANTIFREEZE/COOLANT

PRODUCT DESCRIPTION

Havoline[®] Xtended Life Antifreeze/Coolant is a single phase, ethylene glycol antifreeze/coolants based on an aliphatic corrosion inhibitor system available as a concentrate and a premix 50/50.

CUSTOMER BENEFITS

Havoline Xtended Life Antifreeze/Coolant delivers value through:

- OEM Approval Meets the requirements of Ford WSS-M97B44-D, GM 6277, MB 325.3 and Volkswagen TL 774F specifications.
- Wide service application Recommended for use in Domestic, Asian and European automotive and passenger car diesel applications including newer hybrid vehicles.
- Heat Transfer Improved heat transfer when compared to silicate containing antifreeze/coolant products.
- Long Service Life 150,000 miles/240,000 km/5 years of cooling system protection.
- Beneficial formulation Organic additive formulation that is free of silicate, nitrite, borate, phosphate, nitrate and amines and which allows longer service life.
- Protection Outstanding high temperature protection of cooling systems metals including aluminum.
- Water Pump Performance Compatible with water pump seal materials and minimizes formation of abrasive solids which can help extend water pump life.
- Performance Superior protection at high operating temperatures. Reduces the occurrence of hard water scale.
- Wide temperature application Protects against winter freeze up and minimizes chances of summer boil over.

- Reduced Inventory Can be used in mixed fleet applications where both gasoline and passenger car diesel vehicles are present from various manufacturers.
- **Stability** Can be stored for approximately 8 years in sealed containers without any effect on the product quality or performance.

FEATURES

Havoline Xtended Life Antifreeze/Coolant is based on a patented aliphatic organic additive formulation that provides a service life of 150,000 miles/240,000 km/5 years and is approved under GM 6277 meeting the GM DEX-COOL® requirements.¹

The main corrosion inhibitors in Havoline Xtended Life Antifreeze/Coolant have been shown to remain above 95% of their original concentration with proper top off after 150,000 miles/240,000 km in automobiles. This allows much longer intervals between coolant changeouts.

Havoline Xtended Life Antifreeze/Coolant has been formulated without inhibitors such as silicates that have been shown to be abrasive to water pump seals. In comparison taxi field tests versus conventional coolants, Havoline Xtended Life Antifreeze/Coolant reduced the need to replace water pumps during the 100,000 mile/160,900 km test. In addition to fleet tests, this product has also been tested by a major manufacturer of water pump seals and has been found to be more compatible with the seals than other coolants previously tested.

Note: These products are not to be used to protect the inside of potable water systems against freezing.

APPLICATIONS

Havoline® Xtended Life Antifreeze/Coolant meets the specifications of:

Product(s) manufactured in the USA and Colombia.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

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DEX-COOL is a registered trademark of General Motors Corporation.

- **ASTM** D3306
- Ford WSS-M97B44-D
- **GM** 6277
- MB 325.3
- VW TL 774F

Havoline Xtended Life Antifreeze/Coolant is recommended for use in:

- General Motors vehicles post 1995
- Chrysler vehicles post 2001
- · Ford Vehicles post 2003
- · European gasoline and diesel automobiles
- Japanese gasoline automobiles, SUVs and Pickup trucks
- · Korean gasoline automobiles and SUVs

It is recommended that this product not be diluted with other coolant formulations by more than 25% in order to maintain performance claims.

PRODUCT DILUTION AND BOIL OVER PROTECTION RECOMMENDATIONS FOR HAVOLINE XTENDED LIFE ANTIFREEZE/COOLANT - CONCENTRATE

Boiling Protection, °F/°C (using a 15 lb pressure cap)	
50% 1:1 (1 part antifreeze/1 part water)	265/129
Freezing Protection, °F/°C	
40% 2:3 (2 parts antifreeze/3 parts water)	-12/-24
50% 1:1 (1 part antifreeze/1 part water)	-34/-37
60% 3:2 (3 parts antifreeze/2 parts water)	-62/-52

Notes

- Product concentrates should be mixed before use or dilution.
- Havoline Xtended Life Antifreeze/Coolant Premixed 50/50 should be used as purchased. No dilution is recommended.
- For maximum protection against freezing in extremely cold areas, a 60 percent solution (3 parts antifreeze/2 parts water) can be used.
 Concentrations greater than 67 percent are not recommended.
- Always dispose of used coolant in accordance with all local, state, and federal guidelines.

PRODUCT REFERENCE

Note: Bitterant is a flavor aversive that may help reduce the accidental ingestion of this product. These products contain bitterant.

Product Number 236542 SDS Number USA 38248 MSDS Number Colombia 38264 Havoline Xtended Life Antifreeze/Coolant - Concentrate

Product Number 236543 SDS Number USA 38257 MSDS Number Colombia 38260 Havoline Xtended Life Antifreeze/Coolant - Premixed 50/50

TYPICAL TEST DATA Havoline Xtended Life Antifreeze/Coolant

Appearance/Color	Orange
Specific gravity 15/15°C	1.130
Freezing point, °C ^a , ASTM D1177	-37
pH ^b , ASTM D1287	8.5
Reserve alkalinity ^c , ASTM D1121	6.0
Silicate, %d	None

- a 50 vol % aqueous solution.
- b 1:2 dilution with water.
- c As received.
- d As anhydrous alkali metasilicate.

Minor variations in product typical test data are to be expected in normal manufacturing.

Havoline® Xtended Life Antifreeze/Coolant ASTM D1384 Glassware Corrosion Test

	ASTM Limit	Weight loss, mg per coupon ^a
Copper	10 max	2
Solder	30 max	-2
Brass	10 max	2
Steel	10 max	-1
Iron	10 max	-3
Aluminum	30 max	4

a Negative indicates net gain.

HANDLING PRACTICES

The primary limiting factor in the shelf life of a coolant is silicate instability. Since silicate will eventually polymerize to silicate gel, traditional coolants have a shelf life of about 18 months. Havoline Xtended Life Antifreeze/Coolant is silicate-free and can be stored for at least 8 years, provided the container remains sealed.