

HAVOLINE[®] CONVENTIONAL ANTIFREEZE/COOLANT

PRODUCT DESCRIPTION

Havoline[®] Conventional Antifreeze/Coolants are low silicate, ethylene glycol based multi-purpose coolants, available as concentrates or 50/50 pre-dilute products, designed for use in automotive engines where silicates are needed and with SCA addition in heavy-duty diesel engines.

CUSTOMER BENEFITS

Havoline Conventional Antifreeze/Coolants deliver value through:

- Wide Service Application These silicate containing products can be used in a wide variety of automotive vehicles where a low silicate product is required¹. It can also be used in heavy duty engines when SCA's are added. These products are also suitable for use in industrial internal combustion engines where an antifreeze/coolant is required to provide protection against freezing, boil over, and corrosion.
- Service Life 2 years or 50,000 miles (80,500 km) in automotive service or up to 250,000 miles (400,000 km) in heavy duty service when supplemental coolant additives are used and correct top up practices are followed.
- **Protection** Provides excellent protection to automotive cooling system components including aluminum.
- Wide temperature application Protects against winter freeze up and minimizes the chances of summer boil over.
- Antifoam properties Excellent antifoam package minimizes foaming potential.

1 Some OEMs require the use of silicate free coolants. Always follow your OEM's recommendation.

• **Compatibility** — Compatible with heavy duty coolant additive filters and liquids. Compatible with most major brands of coolants. Note: This product is not an extended life coolant.

FEATURES

Havoline Conventional Antifreeze/Coolants are single phase, ethylene glycol based products blended with a premium quality additive package. They are low silicate coolants designed for use in both heavy-duty diesel and automotive engines, particularly those containing aluminum alloys. When used in Heavy Duty Diesel application, an initial dose of supplemental coolant additive is required. In addition, routine SCA application will also be required. Please follow engine OEM recommendations regarding coolant maintenance. These products provide antifoam properties, and rust and corrosion protection for aluminum, brass, copper, solder, steel and cast iron. They mix readily with any clean tap water and are compatible with cooling system filters and supplemental additives. Havoline Conventional Antifreeze/Coolant products are free of nitrites and amines.

Havoline Conventional Antifreeze/Coolants have a service life of 2 years/50,000 miles (80,500 km) in automotive applications and 200,000 to 250,000 miles (320,000 to 400,000 km) in heavy duty application when SCA's are added.

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

APPLICATIONS

Recommended applications for Havoline Conventional Antifreeze/Coolant products:

- Automobiles requiring a non-extended life, silicate containing coolant meeting ASTM D3306.
- Heavy duty cooling systems requiring a nonextended life, low silicate coolant that is compatible with supplemental coolant additives.

Product(s) manufactured in the USA.

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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• Industrial cooling systems, recreational equipment and compressors where a low silicate, non-extended life formulation is recommended.

PRODUCT APPROVALS²

Havoline[®] Conventional Antifreeze/Coolants meet:

- ASTM D3306 for automotive service
- ASTM D4985 for heavy duty diesel service
- TMC of ATA RP-302A

Suitable for use in:²

- AAMVA
- General Motors prior to 1994
- FCAs (formerly known as Chrysler) prior to 1999
- Fords prior to 2001
- Most heavy duty cooling systems including John Deere, JI Case, Cummins, Freightliner, Mack and Kenworth/Peterbilt (Note: Use of supplemental additives may be required.)

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

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

Notes

- Product concentrates should be agitated before use or dilution.
- Havoline Conventional 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 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 226110 SDS Number 10719 Havoline Conventional Antifreeze/Coolant -Concentrate

Product Number 226821 SDS Number 10723 Havoline Conventional Antifreeze/Coolant - Premixed 50/50

TYPICAL TEST DATA

HAVOLINE CONVENTIONAL ANTIFREEZE/COOLANT - CONCENTRATE

Appearance	Fluorescent green
Specific gravity 60/60°C	1.130
Freezing point, °C ^a , ASTM D1177	-37
pH ^b , ASTM D1287	10.5
Reserve alkalinity ^c , ASTM D1121	12.0
Silicate, % ^d	0.09

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.

² Always be sure to check with engine OEM's coolant recommendations.

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Havoline[®] Conventional Antifreeze/Coolant -Concentrate ASTM D1384 Glassware Corrosion Test

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

a Negative indicates net gain.

HANDLING PRACTICES

In order to prevent the formation of silicate gel in storage containers Havoline Conventional Antifreeze/ Coolant products should not be stored longer than eighteen months, and should not be treated with supplemental coolant additives until it is ready to be used.

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.