

HAVOLINE[®] UNIVERSAL ANTIFREEZE/COOLANT

PRODUCT DESCRIPTION

Havoline[®] Universal products are single phase, ethylene glycol antifreeze/coolants based on patented aliphatic carboxylate corrosion inhibitor systems and are available as a concentrate and a 50/50 pre-dilute.

CUSTOMER BENEFITS

Havoline Universal Antifreeze/Coolants deliver value through:

- Wide service application Recommended use in Domestic, Asian and European automotive and light duty truck applications including newer hybrid vehicles.¹
- 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 promotes long service life.
- **Compatibility** Compatible with other extended life coolant formulations. Note: It is recommended that this product not be diluted by more than 25% with other coolant formulations.
- **Performance** Exceptional protection at high operating temperatures. Minimizes the occurrence of hard water scale.
- Wide temperature application Protects against winter freeze up and minimizes chances of summer boil over.
- Managed Inventory Costs Can be used in mixed fleet applications where both cars and light duty trucks are present from various manufacturers.¹
- Stability Storage stability for at least 8 years.

FEATURES

Havoline Universal Antifreeze/Coolants are designed for all makes and all models of automobile and light duty trucks regardless of fuel type built by American, European, or Asian OEMs.¹ This product is dyed yellow, which allows it to be used as top-up in any automobile or light duty truck application without changing the existing coolant color. Havoline Universal is recommended for use in general service applications where cooling system warranty maintenance is not required. Mixing of Havoline Universal with other products will reduce its extended life properties.

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

APPLICATIONS

Recommended Applications for Havoline Universal Antifreeze/Coolants:

- All makes and all models of automotive and light duty trucks regardless of fuel type¹
- Meets or exceeds: ASTM D3306
- It is recommended that this product not be diluted with other coolant formulations by more than 25% in order to maintain performance claims.

Product(s) manufactured in the USA.

A Chevron company product

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¹ Some OEMs require the use of silicate containing coolants. Follow your OEM's recommendation.

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.

PRODUCT DILUTION AND BOIL OVER PROTECTION RECOMMENDATIONS FOR HAVOLINE[®] UNIVERSAL 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) 50% 1:1 (1 part antifreeze/1 part water) 60% 3:2 (3 parts antifreeze/2 parts water)	-12/-24 -34/-37 -62/-52

Notes

- Product concentrates should be agitated before use or dilution.
- Prediluted 50/50 products should be used as purchased.
- For optimum year round protection against freezing, boiling and corrosion, a 50 percent Havoline Universal (1 part antifreeze/1 part water) is recommended.
- For maximum protection against freezing in extremely cold areas, a 60 percent solution of Havoline Universal Antifreeze/Coolant - Concentrate (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 227062 SDS Number 14875 Havoline Universal Antifreeze/Coolant - Concentrate

Product Number 227063 SDS Number 14879 Havoline Universal Antifreeze/Coolant - Premixed 50/50

TYPICAL TEST DATA HAVOLINE UNIVERSAL ANTIFREEZE/COOLANT -

Concentrate

Appearance	Light Yellow
Specific gravity 15/15°C	1.130
Freezing point, °C ^a , ASTM D1177	-37
pH ^b , ASTM D1287	8.3
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.

HANDLING PRACTICES

The primary limiting factor in the shelf life of a coolant is silicate instability. Since silicate will eventually polymerize to silicate gel, silicate containing coolants have a shelf life of about 18 months. Havoline Universal Antifreeze/Coolants are silicate-free and therefore can be stored for at least 8 years, provided the integrity of the container is maintained. Product should be agitated before use.

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.