

### CHEVRON UNIVERSAL ANTIFREEZE/COOLANTS

### PRODUCT DESCRIPTION

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

### **CUSTOMER BENEFITS**

Chevron Universal Extended Life Coolants deliver value through:

- Wide service application Recommended use in all makes and all models of Domestic, Asian and European automotive and light duty truck applications including newer hybrid vehicles.<sup>1</sup>
- Long Service Life 150,000 miles/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. Silicate and Phosphate Free formulation minimizes the occurrence of deposits and hard water scale.
- Wide temperature application Protects against winter freeze up and minimizes chances of summer boil over.
- Controlled Inventory Costs Can be used in mixed fleet applications where both cars and light duty trucks are present from various manufacturers.<sup>1</sup>
- Stability Storage stability for at least 8 years.

### **FEATURES**

Chevron Universal Anti-Freeze/Coolant is designed for use in all makes and all models of automobiles and light duty trucks regardless of fuel type built by American, European, or Asian OEMs. 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. Chevron Universal is recommended for use in general service applications where cooling system warranty maintenance is not required. Mixing of Chevron 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 Chevron Universal Extended Life Anti-Freeze/Coolants

- Designed for use in all makes and models of automobiles and light duty trucks regardless of fuel type<sup>1</sup>
- Meets or Exceeds: ASTM D3306, D2809, D4985, D1384
- 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.

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

# PRODUCT DILUTION AND BOIL OVER PROTECTION RECOMMENDATIONS FOR CHEVRON UNIVERSAL ANTIFREEZE/COOLANT CONCENTRATE

| Boiling Protection, °C/°F (using a 15 lb pressure cap) |           |
|--|-----------|
| 50% 1:1 (1 part antifreeze/1 part water)               | 129.4/265 |
| Freezing Protection, °C/°F                             |           |
| 40% 2:3 (2 parts antifreeze/3 parts water)             | -24.4/-12 |
| 50% 1:1 (1 part antifreeze/1 part water)               | -36.7/-34 |
| 60% 3:2 (3 parts antifreeze/2 parts water)             | -52.2/-62 |

#### **Notes**

- Product concentrates should be agitated before use or prior to dilution.
- Prediluted 50/50 antifreeze/coolants should be used as purchased without further dilution.
- For optimum year round protection against freezing, boiling and corrosion, a 50 percent Chevron Universal (1 part antifreeze/1 part water) is recommended.
- For maximum protection against freezing in extremely cold areas, a 60 percent solution of Chevron Universal 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: Starting January 1, 2010, Chevron began selling only bitterant containing antifreeze/coolant products. Bitterant is a flavor aversive that may help minimize chances of accidental ingestion of this product.

Product Number 227058

Chevron Universal Antifreeze/Coolant Concentrate

- Bittered

Product Number 227059

Chevron Universal Prediluted 50/50 Antifreeze/Coolant

- Bittered

## TYPICAL TEST DATA CHEVRON UNIVERSAL ANTIFREEZE/COOLANT CONCENTRATE

| Appearance                                      | Light Yellow |
|---|--------------|
| Specific gravity<br>15/15°C                     | 1.130        |
| Freezing point, °C <sup>a</sup> ,<br>ASTM D1177 | -36.7        |
| pH <sup>b</sup> , ASTM D1287                    | 8.3          |
| Reserve alkalinity <sup>c</sup> ,<br>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. Chevron Universal Anti-Freeze/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.