# CITGO ANTIFREEZE AND COOLANT



Date 02/05

### **DESCRIPTION:**

CITGO Antifreeze and Coolant is a conventional (green colored) ethylene glycol based antifreeze/coolant formulation that protects all cooling system metals, including aluminum, against damaging rust and corrosion.

#### QUALITIES:

A universal low silicate formula antifreeze which protects against loss of radiator heat transfer capacity in aluminum as well as conventional metal cooling systems.

Exceeds industry performance requirements as follows:

- Chrysler MS 7170
- General Motors GM 1825M
- General Motors GM 1899M
- Detroit Diesel 7SE298
- Cummins 90T8-4 (Low silicate antifreeze)
- John Deere H24B1/H24C1
- Ford New Holland WSN-M97B18-D
- Volvo/GM Heavy Truck
- SAE J 1034 and J 1941
- ASTM D 3306 "Ethylene glycol base engine coolant"
- ASTM D 4985 "Low silicate ethylene glycol base engine coolant for heavy-duty engines requiring an initial charge of supplemental coolant additive (SCA)"
- ASTM D 4340 "Aluminum Corrosion"
- General Service Administration description A-A-870A
- TMC 302B

Does not adversely affect automotive hoses, gaskets, or paint finishes. Is compatible with other antifreezes and commercial cooling system filters.

## **APPLICATIONS:**

CITGO Antifreeze and Coolant is recommended for most domestic and imported vehicles. Its application extends to passenger cars, trucks, buses, tractors and other heavy-duty commercial equipment in which it may be used in year-round service. All heavy-duty diesel engines, on-highway and off-highway, require the addition of a separate supplemental coolant additive (SCA) to the coolant at initial fill and when topping off. Some European manufacturers' warranties, such as Volkswagen's, do not cover damage resulting from the use of a phosphate antifreeze/coolant such as CITGO Antifreeze and Coolant. CITGO advises that only antifreeze and coolant meeting the OEM's recommendations be used.

CITGO Antifreeze and Coolant is also recommended for continuous service in stationary engines such as gas engine compressors, irrigation engines and engine powered generators and air conditioning units. CITGO advises that only antifreeze and coolant meeting the OEM's recommendations be used.

CAUTION: Combustible Mixture N.Y.F.D. - C. of A. No. 1002, Container approved by California Bd. of Stds. and Appeals No. 375-73-A.

Do not use antifreeze over 70% concentration in water.

WARNING: Harmful or fatal if swallowed. Keep out of reach of children and animals. Read label carefully.

## **CITGO ANTIFREEZE AND COOLANT**

| Physical and Chemical Properties                       | Specification |
|--|---------------|
| Material Code  | 657201001     |
| Specific Gravity, ASTM D 1122, 60°/60°F (15.6°/15.6°C) | 1.13          |
| Pounds Per Gallon, 60°F (15.6°C)                       | 9.4           |
| Flash Point, ASTM D 92, °F (°C),Min.                   | 250 (121)     |
| Freezing Point, ASTM D 1177, °F (°C), Max.             |               |
| 50 Vol. % aqueous solution                             | -34 (-37)     |
| Boiling Point, ASTM D 1120, °F (°C), Min.              |               |
| Undiluted  | 325 (163)     |
| pH, ASTM D 1287, 50 Vol., % solution                   | 10 - 11       |
| Reserve Alkalinity, ASTM D 1121,ml, Min.               | 11            |
| Total Water, ASTM D 1123, Mass %, Max.                 | 5             |
| Total Glycols, ASTM D 202, % WT, Min.                  | 95            |
| Foaming Tendency, ASTM D 1881, ml. Max.                | 50            |
| Break Time, Sec. Max.                                  | 3             |
| Color  | Bright Green  |
| Silicon, ppm, Max.                                     | 250           |

# **BOIL/FREEZE PROTECTION:**

| % Antifreeze | Freezing      | Boiling Point, °F (°C)      |                 |
|--------------|---------------|-----------------------------|-----------------|
|              | Point °F (°C) | <b>Atmospheric Pressure</b> | 15 psi Pressure |
| 40           | -10 (-23)     | 222 (106)                   | 259 (126)       |
| 50           | -34 (-37)     | 226 (108)                   | 265 (129)       |
| 60           | -62 (-52)     | 230 (110)                   | 270 (132)       |