



TEXACO EXTENDED LIFE COOLANT SYSTEM

Code 16445
Code 16447

Texaco Extended Life Coolant/Anti-Freeze Nitrite Free
Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze
Nitrite Free

Texaco Extended Life Coolant/Anti-Freeze Nitrite Free is a single-phase, ethylene glycol type heavy duty diesel engine coolant based on Texaco's patented extended life carboxylate corrosion inhibitor system without nitrite. Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free is a 50/50 mixture of Texaco Extended Life Coolant/Anti-Freeze Nitrite Free with deionized water. It is recommended that only Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free be used for initial fill and top-off. Use Texaco Extended Life Coolant/Anti-Freeze Nitrite Free should you need to adjust the freeze point as required by ambient conditions.

Product Application

Texaco Extended Life Coolant System is a heavy duty engine coolant system which incorporates patented carboxylate corrosion inhibitor technology. This system of coolant products includes **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free**, a 50/50 mixture of coolant and deionized water, and **Texaco Extended Life Coolant/Anti-Freeze Nitrite Free**, a concentrate. **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free** meets ASTM D 4656 and D 5345. When properly employed, in solution, **Texaco Extended Life Coolant/Anti-Freeze Nitrite Free** meets both ASTM D 3306 for automotive service and ASTM D 4985 for heavy duty diesel service. These nitrate-, nitrite-, borate-, phosphate-, silicate-, and amine-free formulations use Texaco's patented carboxylate technology to provide maximum protection of the six basic metal alloys found in most heat transfer systems. Since the coolant contains no phosphates or silicates, hard water deposits in the cooling system are reduced. Water pump seal wear is reduced as a result of fewer abrasive dissolved solids in **Texaco Extended Life Coolant System** which results in improved water pump life.

The patented carboxylate technology in **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free** has been shown to remain above 80% of their original concentration after 400,000 miles of on-road use in heavy duty diesels without the addition of supplemental coolant additives.

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

Product Description and Features

Texaco Extended Life Coolant/Anti-Freeze Nitrite Free is manufactured from ethylene glycol and a highly effective, long-term corrosion inhibitor package. This inhibitor system eliminates the need for silicates, phosphates, borate's, nitrates, nitrites, and amine additives traditionally used for this purpose.

Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free is a 50/50 mixture of **Texaco Extended Life Coolant/Anti-Freeze Nitrite Free** with deionized water for freeze protection down to minus 34°F (-36.7C) and boil over protection to 265°F (129 °C) with a 15 lb. pressure cap. These products need no precharging or recharging for 400,000 miles of on-road use (four years or 8,000 hours of off-highway use).

Do not add traditional coolants or SCAs to **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free**, since doing so will reduce the products' extended life benefits.

Benefits

- 400,000 miles on-road use (four years or 8,000 hours off-highway use) on initial fill
- Easy maintenance
- No inhibitor testing is required
- Offers excellent pitting protection for wet sleeve cylinder liners
- Effective, long term corrosion protection for aluminum, brass, cast iron, steel, solder, and copper
- Improved water pump life due to reduced water pump seal wear resulting from fewer dissolved solids
- No silicate dropout or gel formation during use or storage
- Excellent heat transfer
- Reduces hard water scale
- Superior protection in high operating temperatures
- Outstanding hot surface aluminum protection
- Also suitable for gasoline powered automotive (5 years/150,000 miles) and industrial engines
- 100% biodegradable in its pure unused form
- Compatible with conventional antifreeze. Dilution with conventional antifreeze will reduce extended life benefits. Texaco recommends that this product not be diluted by more than 10% with conventional coolants.
- Protects against winter freeze up and minimizes the chance of summer boil over

Product Recommendations and Approvals

Texaco Extended Life Coolant System is recommended for use in heavy duty diesel and natural gas engines, especially where a nitrite free product is recommended. Nitrite free products are often used in European diesel engines including Renault, Volvo, AND MAN. **Texaco Extended Life Coolant Nitrite Free** is particularly recommended for use in Mack Class 6 and 7 trucks which incorporate Renault engines. **Texaco Extended Life Coolant System** is also especially recommended for use in the cooling systems of all types of industrial internal combustion engines containing aluminum alloys.

Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free meets or exceeds:

- ASTM D 4656 for automotive service
- ASTM D 5345 for heavy duty diesel service

Texaco Extended Life Coolant/Anti-Freeze Nitrite Free (freeze point adjustment only) meets or exceeds the requirements:

- ASTM D 3306 for automotive service
- ASTM D 4985 for heavy duty diesel service
- FW Heft R443 (Germany)
- KSM 2142 (Korea)
- BS 6580 (British Standard) (BS 5117)
- UNE 26-361-88/1
- NATO S-759
- BT-PS-606A (MIL-Belgium)
- E/L-1415b (MIL-Italy)
- MAN 324
- SAAB
- VOLVO (Reg. No. 260)
- Mack MID-LINER chassis

Texaco Extended Life Coolant System meets:

- Phosphate and nitrite free requirement of European OEMs
- Silicate free requirement of Japanese OEMs

ASTM D 1384 Glassware Corrosion Test

Weight loss in milligrams per coupon, negative indicates net gain

	Copper	Solder	Brass	Steel	Iron	Aluminum
Texaco Extended Life Coolant/Anti-Freeze Nitrite Free	2	0	-1	-1	-1	3
ASTM Limits (Max.)	10	30	10	10	10	30

Product Maintenance

Traditional phosphate and borate containing coolants exhibit high pH and reserve alkalinity (RA) when compared to **Texaco Extended Life Coolant/Anti-Freeze Nitrite Free**. **Texaco Extended Life Coolant's** unique corrosion inhibitor system is designed to protect aluminum and other system metals at lower pH levels than conventional coolants. A comparison of **Texaco Extended Life Coolant/Anti-Freeze Nitrite Free** versus traditional coolants is shown below:

	Texaco Extended Life Coolant/Anti-Freeze Nitrite Free	Traditional Antifreeze/Coolant
Typical pH	8.3	10.5
Typical RA (ml)	6.0	12.0

The above comparison should not be used to draw conclusions about the relative corrosion protection of **Texaco Extended Life Coolants** versus conventional coolants. RA is defined as the amount in milliliters (ml), of 0.1 normal hydrochloric acid required to reduce the pH of 10 ml of antifreeze to 5.5. Since RA is based on the buffering curve of inhibitors which are not present in **Texaco Extended Life Coolants**, we suggest that it is more important that initial pH not change drastically during service interval versus using RA as a corrosion protection indicator. The American Society for Testing Materials (ASTM) has recently eliminated RA level requirements in both key antifreeze specifications: ASTM D 3306 for automotive engines and ASTM D 4985 for heavy duty engines. This action by the ASTM acknowledges that coolants which are not based on phosphate and borate can provide excellent corrosion protection for cooling system metals.

Boiling and Freeze Protection for **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free**

Boiling Protection, °F (C) (15 lb. pressure cap)	265 (129.4)°C
Freezing Protection, °F (C)	-34°F (-36.7)°C

Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free should be used as manufactured. No further dilution is recommended.

Because this product is silicate free, **Texaco Extended Life Coolant/Anti-Freeze Nitrite Free** and **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free** can be stored at least 8 years if the integrity of the container is maintained.

Always dispose of used coolant in accordance with local, state and federal guidelines.

Typical Characteristics

Texaco Extended Life Coolant/Anti-Freeze Nitrite Free	Typical
Code No.	16445
Appearance	Red
Specific gravity 60/60 °F	1.130
Freezing point, °F (ASTM D 1177) 50 vol. % q.s. aqueous solution	-34°F
pH (ASTM D 1287), 1:2 dilution with water	8.3
Reserve Alkalinity (ASTM D 1121), as received	6.0
Silicate, % (as Anhydrous Alkali Metasilicate)	None

To obtain optimum performance, a 50/50 Texaco Extended Life Coolant/Anti-Freeze and water mixture is recommended.

For maximum protection against freezing in extremely cold areas, a 60 percent solution can be used. Adjust **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free** by the table amounts with **Texaco Extended Life Coolant/Anti-Freeze Nitrite Free** (concentrate) for freeze protection to minus 61°F (-51.7°C). Concentrations greater than 67 percent or less than 40 percent are not recommended.

Freeze Point Adjustments as Required by Ambient Conditions

Total System Capacity (Gal., Qt. or L)	5	10	15	20	25	30	35	40	45	50
Amount of Concentrate (Gal., Qt. or L)	1	2	3	4	5	6	7	8	9	10

Handling Practices

Texaco recommends flushing your system with clean water if you have been using conventional coolants. Texaco does not recommend the use of commercial flushing solutions. If significant deposits are visible, and a commercial cooling system flush is used, follow the manufacturer's flushing procedure and dispose of properly. Be sure to flush with water twice afterwards. When changing a system using **Texaco Extended Life Prediluted 50/50 Coolant/Anti-Freeze Nitrite Free** flush with clean water only. Do not use commercial flushes. In the event that a commercial flush is inadvertently used, completely flush the cooling system (twice) with clean water.

The primary limiting factor in the shelf life of a conventional coolant is silicate instability. Since Silicate will eventually polymerize to form silicate gel, all conventional silicate based coolants have a shelf life of about 18 months. **Texaco Extended Life Coolant System** is silicate free and, therefore, can be stored for extended periods (at least 8 years) provided the integrity of the container is maintained.

For information on the safe handling and use of these products, refer to their Material Safety Data Sheets at <http://www.equivatexacomds.com>. For more information and availability, call 1-800-782-7852.