

QMI COOLANT FORTIFIER & CONDITIONER

— Coolant enhancement

Benefits

- Helps restore additive package and extend coolant life
- Reduces coolant breakdown
- Restores reserve alkalinity
- Corrosion inhibitors neutralize corrosive acids
- Contains anti-rust & anti-foam agents
- Combats harmful electrolysis
- Protects all metals utilized in modern cooling systems
- Contains water pump lubricant
- Safe for gaskets and hoses
- Compatible with all coolants, including ethylene glycol, polyethylene glycol & carboxylate (Extended Life), hybrid and heavy duty systems

The Problem

To cool an engine, cooling systems transfer heat from the engine walls to the coolant and then to outside air via narrow radiator tubes. Oxidized by-product of antifreeze catch and hold rust, scale, oil residues and dirt, forming deposits that insulate and reduce heat transfer efficiency. Tap water can contain salt minerals, especially calcium and magnesium that solidify and adhere to hot metal surfaces and clog system passages. Eventually, narrow radiator tubes can become clogged, blocking coolant flow. This clogging also occurs in heater cores.

As the cooling system's heat transfer becomes reduced, excessive temperatures can cause hoses to burst, head gaskets to blow, and cylinder heads and engine blocks to warp.

Ethylene glycol antifreeze reacts with airborne oxygen and forms acid that corrodes iron, steel and aluminum. To prevent corrosive damage, antifreeze must contain enough corrosion inhibitor to neutralize corrosive acids. Heat, dissolved oxygen and minerals use up the corrosion inhibitors, or "reserve alkalinity," the coolant becomes acidic and corrosion accelerates.

Today's bimetal engines and aluminum radiators and heater cores create a miniature battery cell that promotes electrolytic corrosion. Aluminum becomes the sacrificial anode, iron the cathode, with the coolant serving as the charge-carrying electrolyte. The higher the percentage of dissolved minerals and salts in coolant, the better it conducts electricity and the faster aluminum is eaten away. With adequate

corrosion inhibitors, the process is held in check. But once they're used up, corrosion starts to eat away. The most vulnerable components are usually the thinnest, which include the radiator and heater core.

The Solution

QMI Coolant Fortifier & Conditioner is a thermally and chemically stable formula designed to control corrosion and maximize heat transfer in cooling systems including ethylene glycol, polyethylene glycol & carboxylate (Extended Life), hybrid and heavy duty systems. The fortifier formula restores reserve alkalinity while neutralizing corrosive acids, contains an inhibitor system for iron, aluminum and other cooling system metals, including oxygen scavengers to control rust, along with anti-foaming agents.

Protects aluminum and all working parts, will not harm cooling system components, including rubber parts.

Contains lubrication for water pumps, extends coolant life.



Applications

All automotive and truck cooling systems using ethylene glycol, polyethylene glycol & carboxylate (Extended Life), hybrid and heavy duty systems.

Directions

CAUTION: Do not remove radiator cap while engine is hot.

1. Shake Well.
2. With engine off and cool, add entire contents to radiator. Use two bottles for systems with over 24 quart / 23 liters capacity. For heavy duty service use one bottle for each 18 quarts / 17 liters.
3. Run engine to mix thoroughly.

Packaging

Part #	Container Size	Package
GL1546	12 ounces / 354 ml	24 per case