Fleetguard®

Technical Bulletin

Compatibility of Fleetguard Coolants and SCAs with Competitor Products

This bulletin is in response to customer inquiries about mixing various Fleetguard coolant products with other coolants and supplemental coolant additives (SCAs). While some may claim that a particular coolant is formulated such that it renders other coolants incompatible or view it as contamination, laboratory testing has proven that there are no real matters of chemical concern. Our coolant products represent the spectrum of chemistries that are prevalent in the coolant market place. With over 30 years as original formulators and manufacturers of coolants and coolant additives, we have performed extensive field testing at customer locations as real world proof of the laboratory testing we have conducted. The results clearly show that mixing of coolants and supplemental additives does not cause any negative chemical reactions or cooling system problems.

Fleetguard coolant additives and coolant products are fully compatible with all known competitive products. Our coolants, whether conventional SCA or OAT (organic acid technology) inhibited, are compatible with each other as well as the various conventional and OAT coolants of other manufacturers. OAT coolants are not essentially different from conventional chemistry coolants. Both types use either ethylene or propylene glycol as the base antifreeze. The additive chemistries are different but still chemically compatible. All coolants formulated to meet ASTM D6210-03 and TMC RP329 (North America) are compatible with Fleetguard coolant products.

Fleetguard DCA2 coolant additive is an SCA composed of nitrite, borate, and silicate. It must be noted that excessive levels of nitrite/borate SCA and coolants can become aggressive to lead solder and aluminum. Water pump seal leakage is more prevalent with this type of SCA than with our DCA4-type SCA chemistries. Fleetguard does not recommend SCA levels exceeding 3.0 units per gallon when using DCA2 and similar SCA from other manufacturers.

Fleetguard DCA4 coolant additive is an SCA principally composed of nitrite, molybdate, phosphate and silicate. To address the issues with operating high levels of DCA2-type SCA, Fleetguard introduced DCA4 with reduced levels of nitrite, substitution of phosphate for borate, and reduced silicate levels. By this, we reduced the aggressiveness of high levels of DCA2 on lead solder and aluminum. It is safe to run DCA4 as high as 5.0 units per gallon without fear of corrosion issues or water pump seal leakage.

Fleetguard OAT coolant, ES Optimax™, derives its protection properties by the use of proprietary organic acids plus nitrite and molybdate. It has been designed to be fully compatible with coolants formulated with 2-ethyl hexanoic acid.

Testing and field experience with customers has shown that both DCA2-type, DCA4-type, and OAT chemistries have never had any negative chemical reactions nor failed to protect system components when used in accordance with manufacturer's instructions.

While others may make marketing claims about contamination by addition of coolants not of their own manufacture or brand name, there is in fact no technical merit in saying that the coolants cannot be mixed.

ES Compleat™, ES Optimax™, Fleetcool™ EX, Fleetcool™ Recycled, DCA2 and DCA4 are coolants and supplemental coolant additives that are known to us to be compatible with the following (but not all inclusive) list of coolant products:

Fleetcharge® Antifreeze, Caterpillar® Diesel Engine Antifreeze Coolant, Prestone® Heavy-Duty coolant, Final Charge®, Detroit Diesel POWERCOOL® and POWERCOOL® Plus coolant, Caterpillar® ELC, ChevronTexaco Delo™ ELC, Shell Rotella® ELC, Zerex® Extended Life Extreme 3/300, DEX-COOL®, Zerex® G-05, Motorcraft® Premium Gold Coolant, DaimlerChrysler® / Mopar® 2003 coolant.

TB03/05-2

For more information, visit us at **www.fleetguard.com** or contact Customer Assistance at 1-800-22-FILTER (1-800-223-4583).