

# Simple Stuff

## Coolant Man, Cool it!

by Bob Vitrikas

One of my favorite magazines is free! Well that is after you pay \$45 for an annual Hagerty Drivers Club membership that includes six issues of their Hagerty Drivers Club magazine, roadside assistance, discounts on automotive related items etc. A bargain in my opinion.

The Sep-Oct 2024 issue had a very interesting article on antifreeze written by Rob Siegel. You may recall my recent article on winterizing told a sad tale of my woe as a result of mixing antifreeze types. Naturally this article grabbed my attention!



Here are some basics to start with:

- Antifreeze not only lowers the freezing point but, in conjunction with the radiator cap, also raises the boiling point of the water in your cooling system.

- Antifreeze doesn't last forever (except in its original container)! A good rule of thumb is change your coolant every 2-5 years depending on the kind of antifreeze you are using. Some brands brag you can go as long as 15 yrs/350,000 miles. Hmm... How can you tell if it needs changing? If it looks dirty, NOT bright and clear, you need to change it! Also use an antifreeze tester to see if the freeze protection is sufficient. I suggest putting a tag on the radiator cap with the date and type of antifreeze you last used.

- Now for the \$64 question, what kind of antifreeze should I use? OK, deep breath now here we go...

– GREEN: Inorganic Acid Technology (IAT) or the kind your father used in his Oldsmobile. Been around forever and our old British cars are quite happy with this formula. I suggest changing this coolant every 2-3 years. Others antifreeze types listed below can go longer between changes.

– ORANGE: Organic Acid Technology (OAT) replaces the silicate/phosphate corrosion inhibitors with carboxylic acids. It is NOT recommended that OAT antifreeze be mixed with other types of antifreeze. Got that? OK now on to the next one.

– YELLOW: Hybrid Organic Acid Technology (HOAT) improve corrosion resistance by adding silicate (European) or phosphate (Asian) to the OAT mix.

– ALL MAKES, ALL MODELS: One size fits all???? Hmmm.... The Prestone site lists three different “all vehicles” antifreeze. Two of them claim to mix and work with all antifreeze + coolant colors and formulations including OAT, POAT, HOAT & IAT; G05®, G11®, G12®, G12++®, G13®, G30®, G40®, & GG40®. And good for the life your vehicle; 15 years and/or 350,000 miles. The third choice doesn’t say anything about mixing with other antifreeze formulas and only guarantees it for 10 yrs/300,000 miles. Whew!

– When in doubt check your owner’s manual for the manufacturer’s recommended coolant. Alternatively, go the Prestone (<https://prestone.com/vehicle/?years=2018&make=Chrysler&model=Pacifica&cylinders=6&liters=3.6&category=antifreeze>), or Zerex (<https://www.valvolineglobal.com/en/antifreeze-coolant/>), web sites where you can plug in your vehicle info and voila there’s the antifreeze that is right for your car. OK well maybe not your old British ride. I couldn’t find a recommendation for an MG, Triumph, or Austin-Healey. Interestingly there was one for TVR and of course modern rides like Jaguar, Land Rover, Bentley, and Rolls-Royce were listed. The Zerex site (under the Valvoline corporate name) listed no less than 4 choices for American vehicles, 3 for Asian, 5 for European, 6 for heavy duty vehicles, 1 for high mileage and 1 for multi-vehicle types and last but not least, 1 for hybrid vehicles. Good grief Charlie Brown it’s a brave new world out there!

- Lastly, don’t mix antifreeze with tap water! Always use distilled water. Why? The minerals in tap water react with the aluminum parts of your cooling system and build up scale deposits which can clog the system and reduce the life of rubber parts.

There you have it. How could something so simple be so complicated?

