



EVANS COOLING Waterless Engine Coolant

Water-based coolants are quite common, but when it comes to a better alternative that's where Evans Cooling comes in. Its High Performance Waterless Engine Coolant is geared towards light-duty diesel trucks as well as other specific vehicles. Plus it protects from 40 degrees below zero and boils at 375 degrees, so the range is much greater. But that's just one of the reasons this product is better than water-based coolants. After having a few overheating issues with our LBZ project truck last fall, we went in search for a better solution than to "just add water" when we had a problem. Evans Cooling is one of those companies we've known about for a long time and felt it was time to see for ourselves if its products are as good as they say.

Benefits

It wasn't until we got deep into our research on the High Performance Waterless Engine Coolant that we began to truly understand the benefits over water-based coolants. As mentioned before with that wide range, it really does eliminate overheating. It has a boiling point above 375 degrees Fahrenheit and it will not vaporize, thus eliminating overheating, boil-over and after-boil.

Another advantage is the reduced pressure. Evans Waterless Coolants generate very low vapor pressures, reducing stress on engine cooling system components. That's an added safety element, and means seals, gaskets and hoses will last much longer. Plus it prevents corrosion and eliminates pump cavitation.

And a final benefit is the Waterless Coolant eliminates pre-ignition and detonation caused by overheating and according to Evans improves combustion efficiency while delivering more power.

Shop Help

After doing our research and talking with other shops, we were sold on Evans and ready to stop our overheating issues on our LBZ project truck for good. Now, changing your coolant is obviously a do-it-yourself type project that most owners

can do themselves. However the combination of needing a warm shop in the middle of winter to do this, plus our concern about making sure we removed all of the water from our existing coolant led us to Adrenaline Performance in Shelley, Idaho. We lean a lot on our friends at Adrenaline because they're always willing to help, plus our own shops don't have the heat or all the high-end tools and equipment.

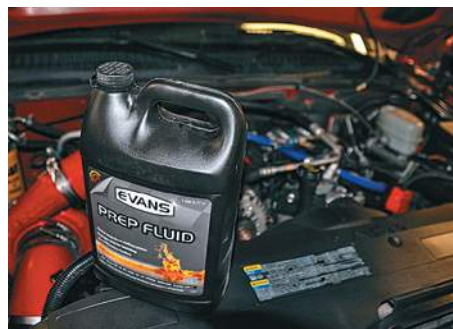
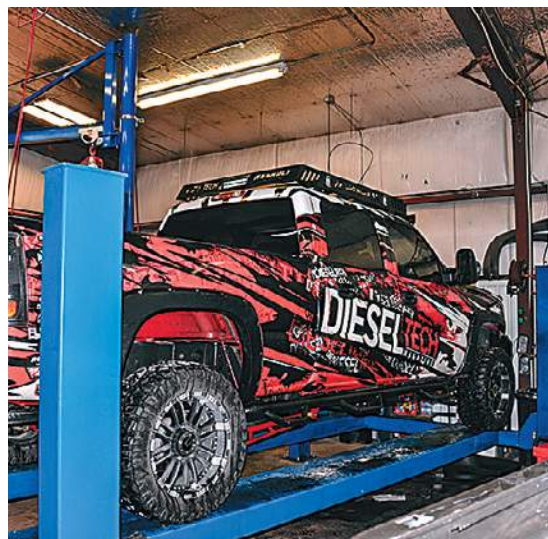
Step One

Adrenaline Performance owner Cam Hulse worked us into his schedule so we could get started. Without a drain plug for the coolant we removed the bottom hose and the old coolant began to rush out. Because it's vacuumed sealed it eventually stopped, but then when we removed the cap it once again began to flow quickly.

Manny Rodriguez, a technician for Adrenaline Performance, then hooked up an air nozzle and was able to blow out any excess that was left, which actually was quite a lot. It is recommended that high volume air is used, rather than high pressure.

Step Two

The instructions stress over and over the importance of getting all of the water out before adding the new coolant. Evans even goes so far as to offer





Prep Fluid just to make sure, which of course is a must. We poured the gallon jugs into a clean 5-gallon bucket and then vacuumed it in which was not only easier, but also cleaner. With the Prep Fluid now in our truck, we next started the LBZ and ran it for 15 minutes as

directed. Running the truck with the heat on high ensures the coolant will be circulated throughout the heater core.

Step Three

The draining process that was done in Step One was repeated to remove the Prep Fluid and once again Manny was able to blow out any excess fluid. Reminder: a low pressure shop vacuum for lower type pressure is ideal for this step.



Step Four

Using the bucket and vacuum system again, Evans High Performance Waterless Engine Coolant was added. We ran the truck again for another 15 minutes to ensure thorough flow through the heating circuit, and then using the provided test strips we were able to verify that we had done this entire process correctly. A color chart helps determine the truck's water content and we came in safely just below the three percent range.



Step Five

The last and final step may not seem that important, but we added the "Do Not Add Water" sticker to the cap. We know we now have the Evans product in our truck, but a future shop or even a friend trying to help might try and add water for some reason down the road, so it's important to add the warning labels.



Final Thoughts

After switching to Evans High Performance Waterless Engine Coolant our overheating issues are a thing of the past. At the time the process of making sure all the water was removed seemed to be a little excessive, but it really wasn't too time-consuming after all. And because of the long life (protects for the life of the engine) we're really in a good situation moving forward. There is an investment up front when you buy the coolant, which is available through several dealers nationwide. On average the Prep Fluid will run you around 32 a gallon and the Waterless Coolant sells for approximately 45 a gallon. However, when you factor in the benefits, the wider range from freezing to boil, plus the corrosion protection and long life, once you make the initial investment you should be good. We would, of course, recommend keeping a spare gallon with you at all times.

—Roy Sparks, DT Magazine DT

PRODUCTS	90
Application	15/20
Function	49/50
Durability	10/10
Improvement	10/10
Price	6/10

BE COOL



Chad and Jim with your engine's new best friend

Special thanks to World of Speed in Wilsonville, OR.

SUMMIT RACING PARTS LIST

Evans High Performance Waterless Coolant, p/n EVN-EC61001,

Evans Prep Fluid, p/n EVN-EC42001

Evans Conversion Kit, p/n EVN-E2197

Evans Refractometer (not required, but useful if converting several vehicles), p/n EVN-E2190

Mini Pyrometer w/ laser, p/n SUM-G1054

Lisle Spill-Free Coolant Funnel, p/n LIL-24680

TIME SPENT:
Three hours

DIFFICULTY: ⚙️
(⚙️ ⚙️ ⚙️ ⚙️ ⚙️ is toughest)

EVANS WATERLESS COOLANT ELIMINATES BOIL-OVERS, CORROSION, PITTING AND HIGH PRESSURE IN YOUR CLASSIC CAR'S COOLING SYSTEM. HERE'S HOW TO DO THE SWAP

by Jim Pickering and Chad Tyson
Photos by Tony Piff

Water-based coolants have been the standard since the beginning of the car industry. But those traditional coolants have limitations that car people have simply learned to accept. Coolant turns acidic over time, so we swap it often to eliminate electrolysis from eating our engine's metals from the inside out. We replace plugged heater cores and radiators, full of scale and other deposits left by water. And we still deal with boil-overs on hot days and the high pressure needed to boost water's boiling point, which can blow hoses and gaskets.

Evans Waterless Coolant eliminates all of these problems by completely eliminating water from the equation. EWC has a higher boiling point than water by more than 100 degrees, so there's no need

for high pressure in the system to keep temps in check and no risk of boil-overs. It significantly reduces oxidation and electrolysis, and does not build up scale inside heater cores and radiators. Best of all, it is a one-time swap that'll last as long as you own your car.

The only maintenance? Check your water content once a year. At about 340 total (including three gallons of coolant, Prep, and tools/equipment), this isn't cheap, but considering the time, effort and expense you'll save by not needing to swap coolant, rod out radiators, or deal with boil-overs anymore, it's money well spent.

Swapping over is simple, but there are some important steps to follow. We took my '72 Chevy K10 to World of Speed's shop in Wilsonville, OR, to show you how to do it.

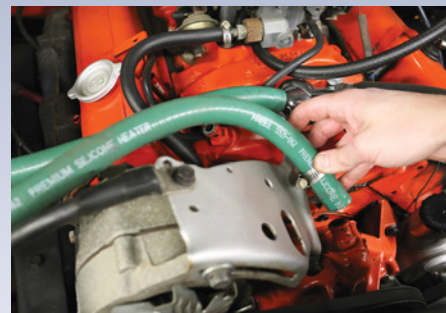
WRENCHING HOW-TO



1 Start with a cool engine. Disconnect the negative battery terminal and locate the radiator drain petcock, which in this case is on the driver's side of the radiator, pointed right at the steering box. Thanks, GM!



2 Key to this process is removing as much of the old coolant from the system as possible. Open the radiator cap and the petcock to allow coolant to drain out. To limit the mess that coolant raining on the steering box will cause, stick a two-foot length of 3/8-inch fuel line on the end of the petcock and put the other end into a large bucket. Let it run until it stops.



3 Next task: Remove any residual coolant from the heater core if accessible. Locate the feed and return heater core hoses and disconnect them both from the engine. Stick one in an empty catch container, and if you have an in-line valve anywhere in either line, be sure it's open.



4 Evans recommends high-volume air for this job, such as a leaf blower. Compressed air can also be used, but it isn't as effective and can cause damage if you're not careful. Blow any remaining coolant out into the container.



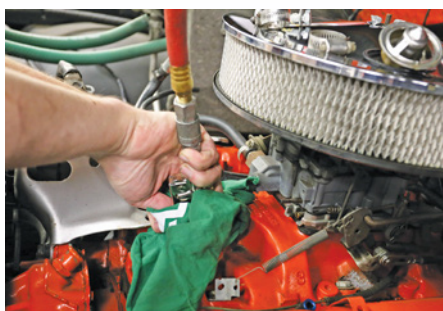
5 A small-block Chevy has two water-jacket drains — one on each side of the engine just above the oil pan — stopped up with threaded brass plugs. If you can get to them, use a six-point 9/16-inch socket and a ratchet and loosen both to hand-tight, but don't remove them yet. (If you can't get to the drains or can't get them out of the block, don't worry — we'll get to that in a second.)



6 Block drains can make a pretty big coolant mess all over you and your floor. We used a transmission funnel and a length of heater hose to direct the engine block's coolant into an old gas can. Drain both sides.



7 With the block drains still removed, pull the thermostat housing and thermostat from the top of the engine.



8 Blow through the block, pushing any remaining water and coolant out of the block drains. If you can't get to the drains or there aren't any, pull the lower radiator hose and place a bucket under it to catch what's in the block. We used high-pressure compressed air, an air nozzle, and a rag. When the block is dry, reinstall the thermostat and housing.



9 Reinstall the thermostat and housing, the heater core hoses, the block drains and the lower hose (if applicable), and close the radiator petcock.

WRENCHING HOW-TO



10 Evans Prep Fluid is specifically designed to pull any remaining moisture from your cooling system. Fill the radiator with Prep, check for leaks, hook up the battery and start the engine. We used Lisle's Spill Free Coolant Funnel (Summit Racing p/n LIL-24680) to burp air out of the system.



11 For the Prep Fluid to do its job, it must circulate through the entire cooling system — so you need to get the engine to operating temp, with the thermostat open and the heater running. We used a mini laser pyrometer (Summit Racing p/n G1054) — a hands-free gauge — to verify the truck's thermostat had opened and that all heater hoses were hot. Run for 10 minutes beyond that point, then allow the system to cool.



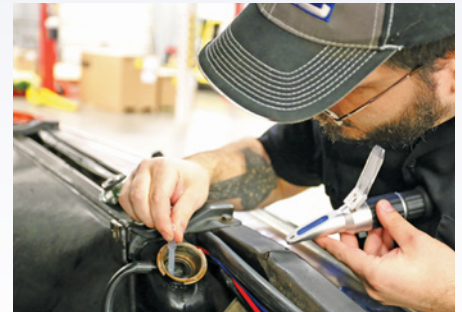
12 Drain the radiator and the block again, using the petcock and block drains. Save the Prep Fluid, as it's reusable up to three times — but be sure to keep it in a closed container, as it will pull moisture from the air if left out. If you don't get all the Prep out of the system, don't sweat it — it's also waterless and compatible with Evans Waterless Coolant.



13 Close up your block drains and petcock, and fill the engine with Evans Waterless Coolant. Burp the system, close up the radiator cap, and run for ten minutes after it hits operating temperature. Let it cool.



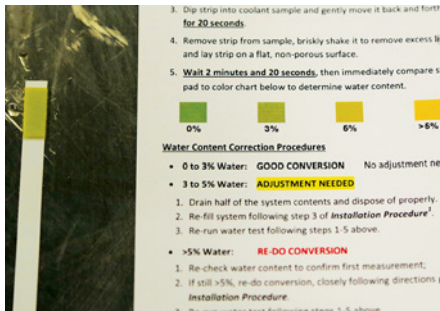
14 Testing water content is critical — you need less than 3% water for a successful conversion. Evans uses two different methods: a refractometer that uses a Brix scale to measure moisture, and small test strips that come inside the Conversion Kit.



15 To use the refractometer, first calibrate it using fresh Evans coolant. Place two to three drops on the glass, aim it toward a light source, and set the reading to 57.0 using a small screwdriver. Clean it off, place two to three drops of coolant from your radiator on the glass, and view the results. A reading of 55.7 equates to 3% water. Higher numbers mean lower water content.



16 To use Evans test strips, first draw an ounce of coolant from your radiator into a clean container and allow it to cool below 100 degrees. Pull a test strip out of the container and place it in your coolant sample. Move it around for 20 seconds. Then remove the strip and let it sit for two minutes and 20 seconds.



17 Compare the color of the test strip with the supplied chart. If you're green, you're good — that's 0%–3% water. If you're at 5% or more, corrective action needs to be taken — starting with a drain and fill of the radiator with fresh Evans coolant, which will lower the percentage of water. We fell right at 3%.



18 Finally, place the supplied stickers on or near your radiator to ensure nobody ever adds water to your radiator. Your system is now good to minus 40 degrees and has a 375-degree boiling point, and it'll stay that way as long as you own the car. 