



Tech Bulletin #: TB-1109	Part Number: 1109
Date Issued: December 30, 2019	Date Revised: n/a
Bar's Leaks® Liquid Copper™ Block Seal Stop Leak	Size: NET WT 18 OZ (510 g)

Block Seal Intake & Radiator Stop Leak

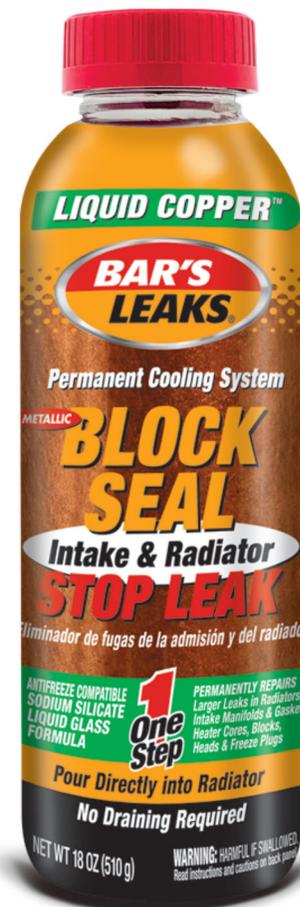
Bar's Leaks® Liquid Copper™ Block Seal Intake & Radiator Stop Leak seals larger leaks regular stop leaks won't. One step formula permanently repairs coolant loss problems on cars, trucks, vans, SUV's and RV's. Antifreeze compatible sodium silicate liquid glass penetrates large and small leaks in plastic, aluminum and cast iron heads, blocks, intake manifold & gaskets, freeze plugs, heater cores and radiators. Fiber additives lock together with liquid to increase strength and promote a permanent seal. It will not harm the cooling system when used properly, no draining is required. Use with ALL types of traditional or extended life coolant including yellow, orange, pink, red, blue, purple and green silicate based & non-silicate based (OAT/HOAT) 50-50 mix antifreeze, and/or water.

America's Most Trusted Stop Leak Brand Since 1947

Permanently Fixes Cooling System Leaks

Antifreeze Compatible—No Draining Required

One Step—Pour Directly Into Radiator—Easy To Use



ASTM D3147 LABORATORY TEST

Standard Test Method for Testing Stop-Leak Additives for Engine Coolants.

This test method covers screening procedures for the preliminary evaluation of leak-stopping materials intended for use in engine cooling systems.

Gum		Particles		Screen	Final Round	Final Slot	Fluid Lost
Before	After	Before	After				mL
Yes	No	No	No	0.030	0.025	0.005	230

The results of this test show that a .025 round hole and a .005 wide slot can be successfully sealed with this product.

BAR'S LEAKS® TECHNICAL BULLETIN (CONTINUED)



**BAR'S
LEAKS®**

ISO 9001 CERTIFIED COMPANY

Liquid Copper Block Seal Stop Leak

DANGER: Opening the cooling system while the engine is hot or running may cause severe burns.

NOTE: Cooling systems that are dirty or partially clogged should be flushed before usage. This product is designed to be used with the manufacturer's recommended antifreeze/water mixture.

Protect from freezing.

INSTRUCTIONS:

- 1) Allow engine to cool. Make sure engine is cool enough so radiator cap can be safely removed.
- 2) Shake well. Pour Bar's Leaks Liquid Copper directly into radiator. If using in a small cooling system including all 3 and 4 cylinder engines, use 1/2 bottle.

TIP: If direct access to radiator is not available and if overflow tank is pressurized, you can install in tank.

- 3) Fill radiator and overflow tank to proper level and reinstall radiator cap. Start engine.
- 4) Turn heater on hot and fan on high.
- 5) Idle engine for 15 minutes.
- 6) Turn vehicle off and allow engine to cool.
- 7) Top off (fill up) radiator and leave Bar's Leaks Liquid Copper in cooling system for continued protection. Drive vehicle as normal.

For severe leaks, like a blown head gasket, it is recommended to use Bar's Leaks Head Gasket Fix or HEAD SEAL™ Blown Head Gasket Repair.

DOSAGE:

One bottle treats cooling systems from 12 quarts (3 gallons) to 24 quarts (6 gallons). Use 1/2 bottle for cooling systems from 8 quarts (2 gallon) to 11.9 quarts (2.99 gallons). For larger systems use one bottle for every 6 gallons of cooling system capacity. Small engines or other small systems use approximately 3 fluid ounces per gallon of fluid capacity.

PURPOSE OF A COOLING SYSTEM

Your engine creates up to 5,000 degrees of heat within the combustion chamber. Enough heat to melt the entire engine in less than 30 minutes! Approximately 1/3 of gasoline's energy is converted into usable power to propel the vehicle, 1/3 of the energy is dissipated out through the exhaust system, and the remaining 1/3 is carried off by the cooling system.

HOW DOES A COOLING SYSTEM WORK?

Coolant, which is a mixture of water and ethylene glycol (Antifreeze), is pumped throughout the engines water jacket drawing heat from the head, pistons, combustion chambers, cylinder walls, valves, etc. The heated coolant travels from the water jacket through a radiator hose, to the radiator, where aided by a fan, its air cooled and returned via the other radiator hose to the engine. Gas is SAVED and engine life INCREASED when the cooling system quickly reaches and maintains a very narrow operational range regardless of outside temperature extremes or engine load demands. Upon engine start up, the temperature must rise quickly, and then remain balanced – not too hot and not too cold! It's important to understand how the condition of the coolant and the condition of the cooling system components can affect the operational economy and life of your engine!