
# Advanced Fuel Additive Technology

## Product description - benefits

The majority of fuel additives, treatments, and conditioners sold today are merely detergents that serve to clean the fuel system but do nothing to the combustion characteristics of fuel or, more importantly, to the combustion chamber itself. This is the arena in which **EcoTek-1** technology and products are formulated to perform, providing the distinction between our products and all the others.

There appears to be a need for clarification about the technology behind **EcoTek-1** due to confusion caused by other less credible fuel additives with similar sounding marketing claims.

**EcoTek-1** is a patent pending combination of high-quality, scientifically created esterfied compounds based on a proprietary manufacturing method blended with our patent pending combustion chamber catalyst

Since most internal combustion engines (ICE) burn fuel at a rate of more than 99% efficiency, claims of improving combustion alone are essentially meaningless. However, the greatest loss in the efficiency of an ICE is the loss of heat that drives the piston. Experts in the combustion field say that heat recovery is the only practical way to improve gas mileage on a modern engine. Our product is both a fuel AND combustion chamber treatment that conditions the setting where fuel combustion occurs so that the process uses more of the heat generated by combustion.

**Here is the way it works:** When **EcoTek-1** is added to the fuel tank, the fuel carries it to the combustion chamber. Its ingredients are used to treat the metal surfaces by forming a film that is technically called thermally derived oxidation. The carboxylic metal creates an oxide residue on the hot surfaces at the time of combustion.

This process can be compared to the scorching of a pan when cooking. When overheated, the food residue forms a layer on the pan when it is oxidized; leaving a film even after being scrubbed that discolors the pan and appears to permeate the pores of the metal.

Inside an engine cylinder, small amounts of material provided by **EcoTek-1** oxidize in high temperatures, rapidly producing a thin layer of film on the cylinder walls, the piston face, and the fire deck that provide several benefits.

First of all, **EcoTek-1** enhances the surface heat absorption characteristics of the metal. The fuel and air mixture produces energy in the form of heat that creates expansion that drives the piston down, and the film inhibits the transfer of radiant heat. This directly results in higher combustion temperature, greater expansion, and more power.

The second benefit the **EcoTek-1** film provides is a polished surface effect that allows more even distribution of the fuel. It can be compared to the beading of water on a polished paint job. The micro film attracts the liquid fuel resulting in better fuel distribution that shapes the charge to yield more power.

The third benefit of the film is by serving as a catalyst precursor to react with the catalyst component in **EcoTek-1** itself. The active compounds of **EcoTek-1** in combination with the heat in the cylinder cause a catalytic reaction that promotes better disassociation of chemicals and better burn. The catalytic reaction is also exothermic and produces heat. Altogether, these three benefits result in a total of 30 to 40% more expansion in the cylinder with an equal amount of fuel.

Another factor to be considered is the ability of the film created by **EcoTek-1 is** to inhibit the build-up of harmful deposits. This is particularly important in view of the effects that the EPA regulations have had on the automobile industry. In order to comply with EPA mandates to lower emissions, fuel manufacturers have removed lead and added oxygenates to fuel. The repercussion is the building of harmful deposits that tend to soak up fuel and cause performance problems. Decreasing the extent of those deposits is yet another benefit of our product.

Lastly, and perhaps most important of all, is the reduction of emissions resulting from the use of **EcoTek-1.** The catalytic process found in catalytic converters on exhaust systems is started in the firing cylinder, which reduces the formation of nitrogen oxides (NOx). The work done by the converter is reduced, and life of the converter is extended.

The use of **EcoTek-1** provides an immediate, cost-effective strategy for fighting air pollution caused by fossil fuels and the internal combustion engine. The high molecular lubricating esters, aids in improving the combustion characteristics of commercial pump fuels (gasoline, diesel, methanol, ethanol, LNG, compressed natural gas or bio-diesel).

Independent laboratory studies confirm that continued use of **EcoTek-1** significantly reduces emissions, fuel consumption, and engine maintenance costs. Dynamometer tests conducted show **EcoTek-1** reduces fuel consumption by 38% in both gasoline & diesel applications.

When used properly, **EcoTek-1** can significantly reduce the emissions of hydrocarbons (HC), nitrogen oxides (NOx), carbon monoxide (CO), particulate matter (PM) and other harmful by-products of combustion, while increase in the emission of O2.

Furthermore **EcoTek-1** is beneficial in that it provides additional lubrication in the upper cylinder, reducing friction and wear. It is especially beneficial when used in low and ultra-low sulfur diesel applications as it replaces the lubricity the sulfur provided. This reduces friction, heat and engine wear, extending the life of the engine significantly.

**Additional benefits:**
**EcoTek-1**'s esters pour-point is -39 degrees F significantly lower than other ester derived products that are diluted with a petroleum-based carrier/mineral oil.
**EcoTek-1** is the perfect additive for all bio-fuels as it contains no petroleum.
**EcoTek-1** treats twice the fuel to that of the competition.
**EcoTek-1** is bio-degradable and is 100% ACTIVE
**EcoTek-1's** esters are made from 100% bio-renewable sources

**In Summary EcoTek-1:**
- Improves fuel efficiency up to 15% or more
- Reduces carbon emissions 30% or more
- Reduces engine operating temperature
- Reduces maintenance costs
- Extends equipment wear-life
- Is safe for the environment

**EcoTek-1** is registered with the Environmental Protection Agency

**EcoTek-1** does not void engine manufacturer warranties by compliance with the federal Magnuson-Moss Act.

**FUEL ADDITVE DIRECTIONS:**

First tank: Add 4-ounces to 20 - gallons of fuel in your tank. Second tank: Add 2-ounces to 20 - gallons of fuel in your tank

CONTINUED USE: 1-ounce for every 20 - gallons at fill-up, save up to 20% on Fuel; Gas, Diesel, Bio-Diesel, Ethanol, CNG, LPG.

This fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and non--road engines.

Please Note:

Fuel application information is subject to some minor adjustments depending on the particular application involved and miles on the vehicle.

We know EcoTek-1 fuel additive will out perform any other ester based fuel additive in the industry (“1280 product included") or other similar competitive products. GreenEcoTek’s Oil additive, ET-50 alone provides 5-10% increased fuel economy conservatively. The combination of both GreenEcoTek's Fuel and Oil additive will provide your customers with unprecedented results compared to "other products" best tests results over the last 20 years. The proof is in the testing, see the results for your self.