

# Enzyme Additive Increases Fuel Economy Up To 15%

## Product Description

Startron® is the world's first fuel treatment to be based on naturally occurring enzymes. Although this is a very unique application of enzyme technology, we encounter various enzymes in our everyday lives. For example, enzymes in laundry detergents break down dirt and stains so that they may be easily washed away, even in cold water. Enzymes in the human digestive system break down food into components that are easily used by the body to produce energy. Functioning as biocatalysts, enzymes increase and control the rate of chemical reactions. Startron® uses highly specialized enzymes to modify how gasoline and diesel fuel burns, the end result being more complete and uniform combustion. This same enzyme package disperses harmful microbial growth, cleans the fuel delivery system and combustion chambers, stabilizes fuel chemistry and reduces engine emissions.

## Increasing Power and Improving Fuel Economy, Reducing Emissions

Engines are not very efficient at burning all of the fuel that is fed into the cylinders. The result of this incomplete combustion is reduced power, production of harmful emissions and carbon formation. By changing the bonding structure of the hydrocarbon molecules that make up fuel, enzymes in Startron® allow more oxygen to attach to the fuel components at the point of ignition, resulting in a more complete burn of the fuel charge. Startron® treated fuel therefore produces greater power, increases fuel economy up to 15% and shows up to a 90% reduction in commonly encountered emissions. Carbon monoxide is reduced up to 40%. Diesel soot is now classified as a carcinogen and a toxic air contaminant. Enzyme modified diesel fuel can reduce soot by over one half in just a day and continued use can reduce soot by up to 80%.

## Cleaning Injectors, The Fuel Delivery System and Combustion Chambers While Removing Carbon Build-Up

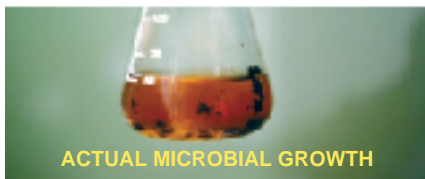
When more of the fuel charge is burned there is a dramatic drop in the formation of performance robbing carbon deposits. After several hours of operating with Startron® enhanced fuel, the engine's concussive forces can blow all existing carbon off the pistons, completely cleaning the combustion chamber without the use of solvent-based carbon removing additives. As the enzymes in Startron® are naturally powerful surface-active agents, deposits are removed from the fuel tank, fuel lines, injectors, valves, pistons and spark plugs. Startron® accomplishes these cleaning tasks quickly and at the lowest per gallon cost of any product on the market.

Once existing carbon deposits are removed

and future deposit formation is prevented, knocking and pinging (pre-detonation) are eliminated. Engines develop full power while running smoother and quieter. An added benefit of a deposit free combustion chamber is that fuel burns at a properly controlled rate, helping to greatly boost fuel economy.

## Microbial Growth In Fuel

When gasoline or diesel fuel sits in a tank with excessive air space, the daily temperature changes produce condensation (water formation) on tank walls. This water falls into the fuel where it sinks to the bottom providing a breeding ground for microbial spores that feed on hydrocarbon fuels.



Known as "diesel algae" these are primarily fungi, yeast and mold contaminants. If left untreated, diesel algae will ruin the fuel causing clogs in filters, fuel lines and injectors. Common treatment for this problem up until now has been the use of a biocide to kill existing growth and prevent a future infestation. The use of a biocide can however cause other problems. Once the growth is killed, the resulting biomass settles to the tank bottom where it decays forming organic acids. The acids then deteriorate the fuel and cause corrosion of the tank walls, injectors and fuel delivery system. Additionally, biocides can be harmful to all those who handle them or come in contact with treated fuel plus, they can cause environmental damage if spilled. Startron® uses its nontoxic enzyme technology to breakdown microbial growth into sub-micron size particles. These microscopic particles are then either safely burned away or filtered out. Startron® is the only treatment that prevents biological growth and eliminates existing growth without the use of toxic chemicals.

## Treating Water In Fuel

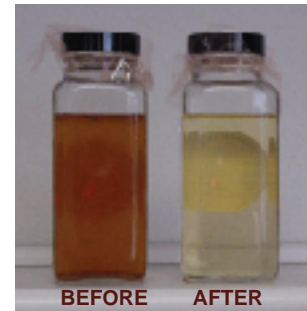
As mentioned before, water can wind up in your gas or diesel fuel as a result of condensation in the tank. Because water is heavier than fuel, it sinks to the bottom of the tank and forms a distinct water layer. The fuel pick-up tube is located at the bottom of the tank so, once this happens, water is supplied to your fuel pump. Obviously the engine can not burn water; soon it starts to sputter and eventually stops running. Additionally, water is corrosive so it deteriorates tank walls and metals in the fuel delivery system. The enzymes in Startron® prevent the water molecules that

are in fuel from combining and forming a distinct water layer. Water is reduced to sub-micron size particles that cannot cause corrosion and are safely burned during normal combustion.

## Stabilizing Fuel Chemistry

Diesel fuel and gasoline are not formulated to be stored for more than 90 days. After this period of time, they begin to oxidize, forming sludge, varnish, gum and other harmful deposits. The ability of the fuel to burn properly is diminished as chemical components start to break down. Startron® uses its enzyme technology to maintain fuel quality and prevent the deterioration of fuel components. Diesel fuel treated with Startron® has a shelf life in excess of two years. Gasoline, which tends to evaporate volatile components more quickly than diesel, remains stable for one year.

Once hydrocarbon fuels deteriorate, the process of cleaning and rejuvenating them is extremely expensive. Enzymes contained in Startron® can in fact "repair" old fuel, restoring cetane and octane ratings, dispersing water and breaking down sludge and other deposits. Startron®'s enzyme formula may well be the most cost effective fuel remediation technology in the world.



## Startron® product line and dosage

Startron® Gasoline Additive is available in 8 fl. oz., 16 fl. oz. and 32 fl. oz. sizes. 1 fl. oz. treats 16 gallons of gas.

Startron® Diesel Fuel Additive is available in 8 fl. oz., 16 fl. oz., 32 fl. oz. and 1 gallon sizes. 1 fl. oz. treats 32 gallons of diesel.

Available where boating products are sold.



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