

# Revolutionary fuel treatment is based on enzyme technology

## Product Description

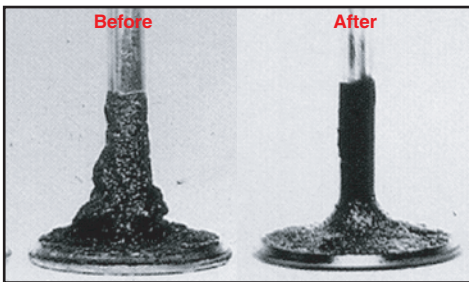
Star Tron<sup>®</sup> is an amazing fuel treatment based on naturally occurring enzymes. Although this is a very unique application of enzyme technology, we encounter various enzymes in our everyday lives. For example, enzymes in laundry detergents break down dirt and stains so that they may be easily 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. Star Tron<sup>®</sup> 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 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 Star Tron<sup>®</sup> allow more oxygen to attach to the fuel at the time of ignition, resulting in a more complete burn of the fuel charge. Star Tron<sup>®</sup> treated fuel therefore produces greater power, dramatically increases fuel economy 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 Star Tron<sup>®</sup> enhanced fuel, the engine's convulsive forces will 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 Star Tron<sup>®</sup> are naturally powerful surface-active agents, deposits are removed from the fuel tank, fuel lines, injectors, valves, pistons and spark plugs. Star Tron<sup>®</sup> 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. Star Tron<sup>®</sup> uses its enzyme technology to disperse microbial growth throughout the fuel. These microbial particles are then either safely burned away or filtered out.

## 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 Star Tron<sup>®</sup> 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

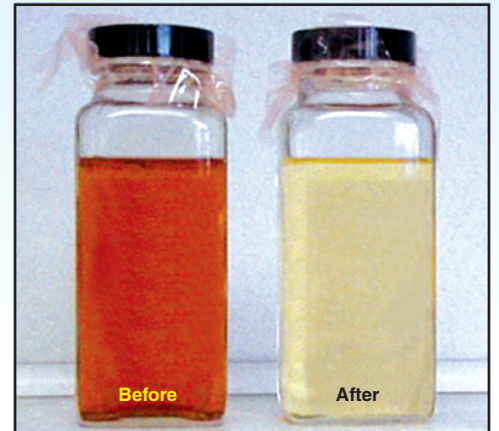
cannot cause corrosion and are safely burned during normal combustion.

## Ethanol-Enhanced Gasoline

The emissions-reducing additive MTBE that has been put into gasoline for years was found to contaminate water supplies. As a result, MTBE is being eliminated throughout the U.S. and replaced by up to 10% ethanol. When used up quickly, ethanol-enhanced gas does not present difficulties for users. In boats and RVs that tend to use up fuel less frequently however, the new ethanol gas does in fact create problems. Ethanol has a great affinity for water and as a result, this new formulated fuel can cause a water layer to form and gelling to occur. Additionally, ethanol is an excellent solvent that can attack sludge buildup in fuel tanks and cause fuel filters to clog frequently. Star brite Star Tron<sup>®</sup> can prevent these problems from occurring and can also reverse the problems if they already exist.

## 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. Star Tron<sup>®</sup> uses its enzyme technology to maintain fuel quality and prevent the deterioration of fuel components. Diesel fuel treated with Star Tron<sup>®</sup> 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 Star Tron<sup>®</sup> can in fact "repair" old fuel, restoring cetane and octane ratings, dispersing water and breaking down sludge and other deposits. Star Tron<sup>®</sup>'s enzyme formula may well be the most cost effective fuel remediation technology in the world.

For more information, visit: [www.startron.com](http://www.startron.com)