Technical Information

Syntek Engine Boost 2.0

Product Background Information

Syntek Global

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Detailed Product Explanation

Syntek Engine Boost 2.0 is a unique blend of oil soluble organo-metallics that result in better overall performance of your combustion engine. When added to gasoline or diesel fuel, **Syntek Engine Boost 2.0** results in increases in MPG and available horsepower, reductions in carbon build-up and carbon related maintenance problems, and reductions in harmful emissions and pollutants sent into the environment through the use of fossil fuels. The purpose of this report is to provide a detailed explanation about how **Syntek Engine Boost 2.0** accomplishes these results.

Syntek Engine Boost 2.0 contains an advanced burn-rate modifier and combustion surface modifier catalyst, which, when combined with gasoline or diesel fuel, (1) increases the rate of the combustion reaction and (2) changes the molecular surface structure of the fuel to achieve a more efficient combustion process.

A catalyst is a substance that lowers the amount of energy required to start a reaction and which increases the rate at which the reaction occurs without being used up during the process. The catalyst is utilized over and over again without undergoing permanent degradation. The ingredients in **Syntek Engine Boost 2.0** are used over and over again. When this occurs, the overall combustion time is altered, which makes the small treatment application of **Syntek Engine Boost 2.0** possible.

The active ingredient in **Syntek Engine Boost 2.0** prevents soot particles from adhering to equipment and metal surfaces. The product deactivates the sites where undesirable chemistry occurs. Soot particles are composed of an inner core and an outer shell, as seen using high-powers transition electron microscopes (TEM). The inner core of soot particles is made up of small carbon particulates and the outer shell is formed by carbon crystallites that have a graphite structure, located parallel to the periphery of the inner core. Once the outer shell is formed, combustion of the soot particle is almost impossible. In order to reduce soot formation in diesel engines, mechanisms that oxidize the inner core of soot, before completely formed, are required. The active ingredients in **Syntek Engine Boost 2.0** are effective in facilitating this process.

Syntek Engine Boost 2.0 also reduces the fuel droplet size and thus increases the surface area where combustion occurs. This reduction in fuel droplet size allows for the increase in the frequency of fuel oxygen collisions, ultimately increasing the concentration of reactants, and thereby increasing the rate of the reaction. **Syntek Engine Boost 2.0** initiates the fuel combustion process at a temperature 400 degrees Fahrenheit lower than the normal ignition point. This reaction produces a combustion and fuel-burn efficiency that more closely resembles the ideal OTTO Cycle for gasoline engines and more efficient fuel burn in diesel engines.

The more efficient combustion process resulting from **Syntek Engine Boost 2.0** eliminates the formation of soot particles in diesel engines by causing combustion of the hydrocarbons before the coagulation of condensates can occur.

Combustion surface modification is an important component of **Syntek Engine Boost 2.0**. Larger particle surface areas result in a more complete burn of the available fuel and reduced particle mass build-up. Corrosive and abrasive engine deposits never form, or if present, are gradually eliminated through ongoing and improved

fuel combustion. By burning and eliminating soot particle build-up on equipment surfaces, harmful emissions are reduced significantly.

Syntek Engine Boost 2.0 can also prevent the buildup of carbon deposits on the gas side of turbochargers. As a result, the rated efficiency of the turbocharger can be maintained and water washing can be significantly reduced.

The additional components of **Syntek Engine Boost 2.0** include detergents for both gasoline and diesel engines, lubricants to treat pumps and injectors, a corrosion inhibitor to keep metal parts of the fuel system like new, a demulsifier to reduce and eliminate condensation in the fuel system, stability agents to prolong the life of stored fuel, and polymerization retardants to reduce solid formation. Additional benefits of using **Syntek Engine Boost 2.0** include reduced cold and acid corrosion, reduced high temperature corrosion and more.

The highly concentrated blend of ingredients in **Syntek Engine Boost 2.0** (1/4 ounce treats up to 20 gallons of fuel) eliminates the need for multiple products that are intended to treat just one symptom. Regular use of **Syntek Engine Boost 2.0** will allow for optimum results in engine performance when combined with regular and scheduled maintenance of any combustion engine.