XMILE International Projects
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Premium biological fuel additive for reduction in fuel consumption, particulates & carbon emissions
XMILE has been designed to provide benefits of improved combustion of spark ignition engines, road diesel engines, gas turbines, heavy marine diesels, commercial and power station boilers. XMILE can be summarized as an advanced enzyme-based solution for increased fuel efficiency and plant reliability. Enzymes belong to a group of organic compounds called proteins that are of great importance in all forms of living matter. Many enzymes have high specificity with respect to the substances whose reactions they catalyze. They lower the activation energy which is necessary to initiate and sustain a biochemical reaction. The enzymes burn simultaneously with fuel. They do not cause pollution as they are organic substances which do not contain heavy metals.
XMILE as a product

- It comes in liquid form and is applied directly to any fuel tank at a dosage of 1/10,000.
- XMILE can be applied to diesel, petrol, biofuel, MGO and HFO 180 or 380.
- XMILE is an enzyme based biocatalyst for all types of fuel.
- The enzymes are 100% biological and not manipulated.
- XMILE is produced in The Netherlands.
- Enzymes are active on a molecular level.
- The enzymes “search” for an unsaturated molecule and begin a biochemical reaction, following which the fuel molecule acts as a saturated molecule - unreactive and with a higher ignition quality.

Results you can expect with XMILE

With continuous use, XMILE provides the following advantages:

- Full combustion
- Fuel savings 5-8% (far more than the additive cover cost)
- Less emissions CO2 -8%, NOX -8%, CO-25% and fine dust-35%
- Cleaner fuel systems and filters

- Increase in engine power
- No contamination of engine and fuel systems
- Smoother running engine
- Extends storage life of fuels up to 8x
- Stops bacterial growth
- Helps dissolve sludge in storage tanks
- Lessens maintenance costs
- Great return on investment
Shipping

The international shipping industry is responsible for the carriage of approximately 90% of world trade and is vital to the functioning of the global economy. Even though it has been recognized as the most carbon-efficient mode of commercial transport, it is still responsible for 2.7% of CO2 emissions. The international shipping industry is firmly committed to the reduction of CO2 emissions and other greenhouse gases and aims to further achieve emissions reductions agreed under the United Nations Framework Convention on Climate Change (UNFCCC). XMILE has been widely used and proved successful for a number of years in the shipping industry.

XMILE on Residual Fuel

- XMILE neutralizes and catalyzes the fuel molecules.
- Increases fuel stability.
- XMILE converts hydrocarbon elements into fuel.
- XMILE lowers Activation Energy
- Faster combustion improves fuel/heat efficiencies.
- Clean burning keeps the combustion chamber, boiler, and exhaust system clean.
- Clean combustion reduces wear on heat transfer pipes.
- Clean pipes improve heat transfer.
- Clean burning reduces exhaust emissions.

Effect on Boilers

- Cleaner burning keeps the combustion chamber, boiler, and exhaust system clean.
- Clean combustion reduces wear on heat transfer pipes.
- Clean pipes improve heat transfer.
- Clean burning reduces exhaust emissions.
Automotive Transport

Improving energy efficiency is of significant importance for competitive companies. Another driving force for energy conservation is environmental in nature. Reduction in emissions of greenhouse gases and environmental pollutants is a major task for our society. Finding solutions which would make efficient use of oil products and prove less harmful for the environment is a great challenge. We however, found a solution in nature itself and created – XMILE. XMILE is suitable for all forms of road transport including cars, trucks, buses and agricultural machine equipment. This in turn lessens particulates production on harvest. In the Netherlands, a ready mixture of XMILE and fuel has been available for purchase at 200 petrol stations and has proven successful. Indeed, more than 100,000 people purchases XMILE daily in the Netherlands.

EU Standard of Xmile Diesel and Xmile Euro 95

Testing was performed by the INTERTEK, research firm, highly regarded throughout the world. As a result, XMILE has proven harmless to all machinery.

XMILE Diesel - EN 590
XMILE Euro 95 - EN 228

The test results show that XMILE meets all fuel standards and qualifies under all related ISO and EN tests.
Power stations

What XMILE will do on a boiler system using HFO fuel

- Faster combustion improves fuel and heat efficiencies
- Scrubs and maintains a clean combustion chamber
- Clean pipes improve heat transfer
- Clean combustion causes less wear on heat transfer pipes
- Reduced fuel consumption
- Less CO2, NOX and CO emissions
- Solving sludge problems
- Average savings with HFO 3-6%
- Saving on maintenance by 2% +

Other benefits for the refinery provide are viscosity and lubricity.

In mainstream examples - when the fuel is cracked in the refinery the molecule strains are broken leaving unsaturated molecules in the fuel. These unsaturated molecules do not combust fully. They place adhesive forces on heavy metals and other undesirable components in lower quality fuels. These unsaturated molecules and the adhesive particles become clumps of fuel called asphaltenes. This causes a weakened combustion resulting in hazardous gases and particulates in the exhaust emissions. With XMILE however, once the fuel is sent to storage tanks it has an 8x longer shelf life and bacterial growth is suspended. The end user will receive a superior fuel that still falls within EN/ISO standards and contributes to greenhouse gas emissions reduction.
XMILE enzyme technology

XMILE is an advanced enzyme-based biological solution for increasing fuel efficiency and reliability. By adding XMILE, the fuel quality improves, resulting in better combustion.

The XMILE product contains approximately 10 different kinds of enzymes which dissolve, creating a chain of biochemical reactions. Then our enzymes become biocatalysts. Our enzymes are formed from special plant extracts. Certain enzymes have the task to find unsaturated molecules, which are in the fuel due to the cracking of the fuel in the refinery, while others work on the other molecules.

XMILE not only improves fuel and thermal efficiency in internal combustion engines, it also enables fuels to be fired in existing boilers, kilns, and power plants with Low Excess Air (LEA). Combusting with LEA has the advantage of reducing pollutant emissions via reduced fuel consumption through improved fuel energy conversion efficiency (fuel to steam efficiency). The released energy increases performance and economy. The reduction in contaminants reduces carbon build-up, reduces wear and lowers harmful emissions. Any fossil fuel combustion process can benefit from XMILE.

LOW COSTS - GREAT RETURN ON INVESTMENT