NEW FUNCTIONAL SOLUTIONS FOR BIODIESEL

VALUE PROPOSITION

- Our supply chain is designed to efficiently serve our local and global customers starting from three independent production sites.
- Our biodiesel portfolio covers a broad spectrum of outstanding products.
- Our team passionately creates value making Evonik not only a supplier of Alkoxides but a solution provider to our partners.
- Our target for the future is to contribute to the reduction of GHG emissions securing high sustainability in the value chain.

TECHNICAL SUPPORT

- On-site assistance during implementation of new technology (e.g., introduction of Alkoxides and MSA), as well as process optimization and troubleshooting.
- Evaluation of effectiveness and efficiency with component consideration of all production facets.
- Simulation of industrial processes on laboratory scale as well as analytical services.
- Constant dialogue with customers for innovation.
- Handling and safety training according to Responsible Care®
it takes is a simple chemical reaction of feedstock into a fuel with excellent combustion properties. This transforms the viscous, high-energy content diesel engine fuel into a fuel with lower investment and production costs, making MSA catalyst technology compatible with any existing plant.

Besides the predominantly used alkaline transesterification of oils and acids, the acidification of fatty acids with methanol yields the corresponding FAME. As the processing of waste materials (e.g. FFA) is considered sustainable, Evonik also offers Methanesulfonic Acid as high-performance catalyst applied in a novel technology.

Up to now, biodiesel production has required many different processing steps, which got reduced to a minimum by using the MBT process, eliminating the refining, pre-esterification, multi-stage transesterification, and separate esterification stages. The technology also eliminates the need for previously necessary chemicals, such as phosphoric acid, citric acid, sulfuric acid, and alkaline transesterification catalysts. For the entire MTE process only one chemical – MSA – and a single process step are required. Furthermore, the MTE completely inhibits saponification. Therefore, the reaction medium undergoes a very fast and clean phase separation without the emission problems encountered in traditional alkaline transmethylation.

Evonik’s ViscoPlex® CFPP Boost Efficiency by:
- Reducing the Cold Filter Plugging Point (CFPP) of biodiesel B100 from different sources such as rapeseed methyl ester (RME), soy methyl ester (SME), palm methyl ester (PME), and used cooking oil methyl ester (UCOME).
- Enabling the use of fatty acid and methyl ester (FAEM) feedstocks of various costs and levels of low-temperature performance to achieve ideal performance/cost ratios.
- Optimizing the CFPP of blends of biodiesel with fuel diesel, meeting or exceeding required fuel specifications.

Evonik has developed ViscoPlex® Cold Flow Improvers (CFIs) for Biodiesel Fuels.