

ImproChem

Technobrief

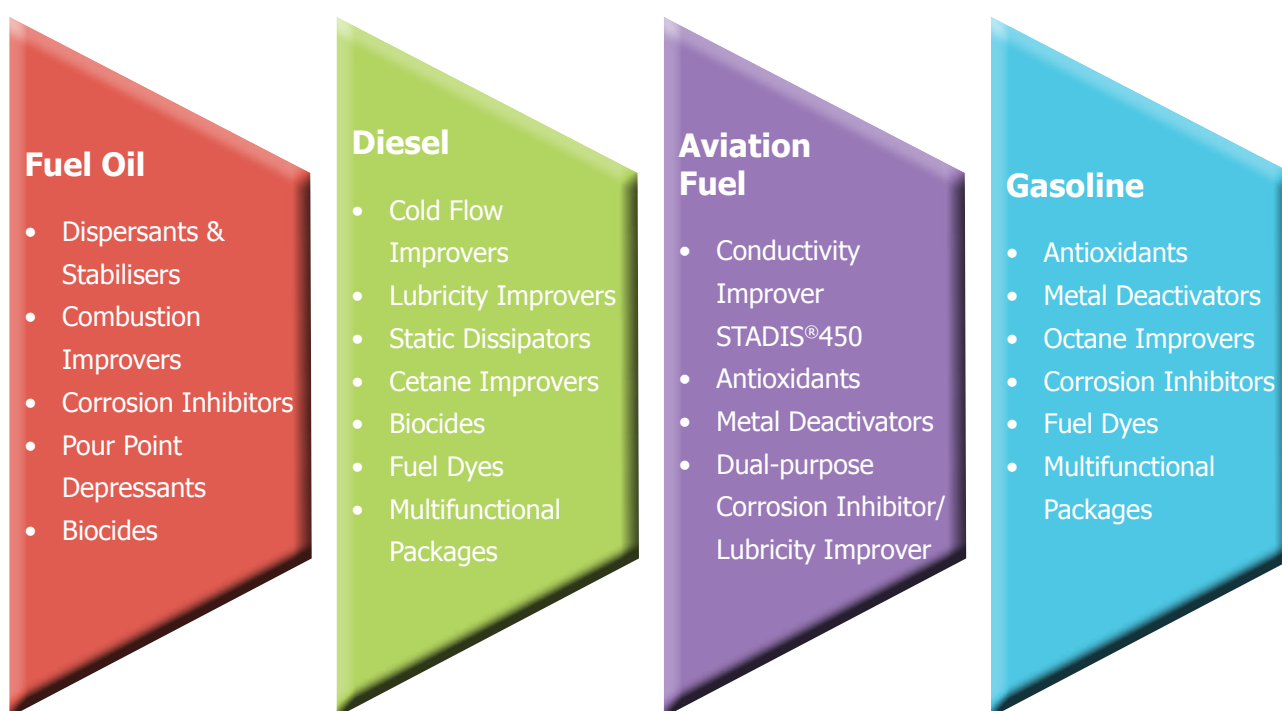
# Refinery & Finished Fuel Additives



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ImproChem is a leading supplier of finished fuel additives technology in Sub-Saharan Africa. Through the class leading R&D capabilities, analytical services and domain expertise of our global fuel additives technology partner, Innospec, along with ImproChem's extensive local resources and established supply networks, we can provide a comprehensive technology and service offering that very few of our competitors can match.

The use of fuel additives is particularly important in today's volatile hydrocarbon production and fuels distribution markets. In an industry subjected to constant change, whether from shifts in the world economy; introduction of new and challenging crude oil sources to refinery crude slates, or new fuel quality legislation, refiners and fuel distributors require innovative fuel additive products and solutions to keep their processes running efficiently and to produce the high quality fuels demanded by industrial and domestic consumers.



Our range of class-leading fuel additives for gasoline, diesel, aviation fuels, residual fuels and renewable fuels include:

- **Antioxidants (AO 87, AO 22 & AO30D70):** Alkylated phenol and phenylenediamine antioxidants, widely used in petroleum gasoline, jet fuel and synthetic fuels, to block chemical reactions involved in fuel oxidation, thereby preventing gum formation, improving fuel stability and extending the induction period.
- **Metal Deactivators (FUEL S4):** Chemically isolate copper and other dissolved organo-metallic compounds that catalyse fuel oxidation processes and harm fuel stability.
- **Dispersants & Fuel Stabilisers:** Improve the storage stability of the fuel by minimizing fuel oxidation, preventing corrosion, deactivating metals and/or dispersing insoluble components. Stabilisers help prevent colour degradation and sediment formation of stored fuel.
- **Corrosion Inhibitors (DCI-4A, DCI-6A & DCI-11):** Protect the integrity of pipelines and storage equipment, as well as motor vehicle fuel intake systems, from attack by water and other acidic corrosive species in gasoline, diesel, aviation fuels, furnace fuels and biofuels. Aviation fuel approved corrosion inhibitors fulfill a dual function of preventing corrosion and improving fuel lubricity.

- **Lubricity Improvers (OLI9000M, OLI9980 & OLI9950):** Mono-acid and synthetic ester-based, multi-product pipeline approved Lubricity Improvers, used to improve the lubricating properties of distillate fuels with low intrinsic lubricity, thereby protecting motor vehicle engines and fuel pump components from mechanical wear.
- **Cold Flow Improvers /CFPP Additives (FUEL U6):** Polymers that prevent wax crystal agglomeration and precipitation upon cooling of diesel fuel and therefore extend the operating temperature range of the treated fuel and prevent fuel filter plugging.
- **Pour Point Depressants /PPDs (PPD7680D50):** Polymers that control wax crystal formation in crude and fuel oils resulting in lower pour point and improved low temperature flow performance.
- **Conductivity Improvers / Static Dissipators, STADIS® (Stadis 450 & Stadis 425)** help reduce the electrostatic hazards associated with the transfer, mixing and loading of petroleum fuels. Low fuel conductivity prevents charges leaking to earth and can result in electrostatic discharge, arcing or sparks inside tanks containing flammable vapour (fire or explosion hazard). A conductivity improver is added to low conductivity fuels (e.g. diesel and jet fuel) to allow electrostatic charges to dissipate.
- **Cetane Number Improvers (CI0801):** increase the cetane rating of diesel fuel, thereby improving the ignition and combustion characteristics of the fuel and help reduce toxic exhaust emissions.
- **Octane Number Improvers (FUEL Z6):** organo-metallic and all-organic anti-knock additives which cost-effectively increasing the motor octane number (MON) of gasoline.
- **Anti Valve Seat Recession (AVSR) Additives (VM1RED):** provide effective exhaust valve seat recession protection for vehicle engines designed to run on leaded petrol.
- **Biocides (FUEL D1):** Used to control microbiological (slime) growth in fuel storage tanks by establishing toxic residuals in both water and oil phases.
- **Petroleum Dyes (Yellow, Red, Orange, Green & Blue):** Typically used for fuel branding and identification purposes.
- **Multifunctional Additive Packages:** Tailored multifunctional performance packages for retail fuels which improve fuel economy, reduce emissions, remove and prevent fuel system deposits, prevent corrosion and improve fuel combustion efficiency.
- **Pipeline Drag Reducers:** Drag reducing agents are a suspension of high molecular weight polymer in an oil carrier fluid that reduce friction and dramatically improve flow properties in flow-restricted crude oil and finished fuel product pipelines.



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