



Development  
of innovative  
and tailor-made  
solutions

# Refining additives range

Your specific range  
formulated by  
Additives and Fuels Solutions



**TotalEnergies**



## Middle Distillate Flow Improvers range - CP 7XXX & CP 10XXX

Paraffins which are natural components of middle distillates can cause formation of wax crystals, which may eventually plug fuel lines and filters. These paraffins can increase operability issues due to cold temperature.

**Middle Distillate Flow Improvers range controls paraffin crystallization by decreasing crystal size**



## Pour Point Depressants range - CP 3XXX

The precipitation of paraffins creates a three-dimensional network that totally immobilizes the oil, the wax structuring very effectively restricts pumpability, thereby placing a lower temperature limit.

**Pour Point Depressants range lowers the pour point & avoids wax deposits**

## Wax Anti-Settling Additives range - CP9XXX

When middle distillates are stored below their Cloud Point, paraffins start to crystallize and may settle developing a wax layer at the bottom of vehicles fuel tanks.

**Wax Anti-Settling Additives limit crystallized paraffin agglomeration & sedimentation**



## Cloud Point Depressant range - CP 8XXX

When middle distillates are cooled down to temperatures below Cloud Point wax crystals begin form and give a cloudy (or milky) aspect to the fuel. At low temperature paraffins are platelet crystals which may have a size of more than one millimeter if the fuel is not treated with cold flow additives.

**Pour Point Depressants range lowers the pour point & avoids wax deposits**



# Property Enhancement



## Lubricity Additives Range

Fuel Lubricity can be defined as the ability of a fuel to minimize wear inside the High-Pressure Fuel Injection systems as such equipment relies on the fuel for providing the right level of lubrication.

**Lubricity Additives range reduces wear**

## Conductivity Additives Range

As fuels are flammable liquids, there is a significant hazard if electric charges accumulate during operations (transferring, blending, pumping, filtering...).

**Conductivity Additives range improves fuel conductivity**

## Cetane Improvers range

The Cetane number is a good indicator of the combustion quality of a fuel. Compounds with low chemical reactivity such as the aromatics of the naphthens will decrease the cetane number while linear hydrocarbons (paraffins) will increase it.

**Cetane Improvers range increases cetane number and improves quality of combustion**



# Product Integrity



## H<sub>2</sub>S scavengers range

H<sub>2</sub>S is a naturally occurring gas contained in many crude oils, it dissolves in hydrocarbon and water streams, and it's present in the vapor phase above these streams. H<sub>2</sub>S is highly toxic and flammable gas which can both degrade process and storage equipment.

**H<sub>2</sub>S scavengers range reacts with H<sub>2</sub>S in gas, water or hydrocarbon systems**

## Antioxidants Range

Depending on their origin, storage conditions, FAME content and processing, biodiesels are sensitive to oxidation.

**Avoids fuel degradation from oxidation by oxygen or thermal ageing and prevents filter clogging and fouling**

## Biocides range

The major cause of bacterial proliferation is water presence in the fuel. In suitable conditions, microorganisms will develop at the fuel-water interface.

**Biocides range avoids microorganisms contamination**



# Your customized package ...

**TotalEnergies Additives and Fuels Solutions at your service !**

A wide range of products is available to develop tailor-made solutions to meet your specific needs and branding from concentrates to ready to use products.

Most of our products are approved by DGMK, Platts, EPA and Energy Institute.

**Contact us !**

[additives-fuels.totalenergies.com](http://additives-fuels.totalenergies.com)

**TotalEnergies Additives and Fuels Solutions** relies on the Company's capacity in R&D with leading edge research centers and benefits from this strength to ensure its development while drawing advantage from its own flexible structure. A competence center for the TotalEnergies company, TotalEnergies Additives and Fuels Solutions combines additive and special fuel formulation and production activities

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## **TotalEnergies Additives and Fuels Solutions**

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