This Circular supersedes: TR 0199-99-01210/6

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## **DEUTZ Premium additives**

(Diesel fuel additives DEUTZ CLEAN-DIESEL INSYPRO PLUS, DEUTZ START BOOST and DEUTZ FLOW BOOST)

## **Alterations**

In comparison to TR 0199-99-01210/6, the following changes have been made:

- The previous additive "DEUTZ Clean-Diesel InSyPro" with part number 01017967 is replaced by the optimised additive "DEUTZ CLEAN-DIESEL INSYPRO PLUS" with part number 01016710.
- Information on the storage and shelf life of DEUTZ additives has been added.

## General

Due to the increased emissions and performance requirements of modern diesel engines, it is crucial that suitable diesel fuels are used in order to ensure proper engine operation. Additives are a fundamental component of diesel fuels. A distinction is made between a basic additive designed to ensure a standard-compliant diesel fuel (for example lubricity additives, cold additives and cetane-value improvers) and performance additives (for example to prevent the accumulation of deposits, corrosion, oxidation).

While special premium diesel fuels are available at petrol stations in many European countries, there are gaps in individual cases, especially when industrial and agricultural engines are used. These gaps are due to the special applications and situations in which the fuels are used.

DEUTZ diesel fuel additives provide you with an appropriate portfolio to improve the performance of your DEUTZ diesel engines for the widest variety of requirements in daily use and to reduce your operating costs.

#### **DEUTZ** diesel fuel additives



#### **ATTENTION**

The DEUTZ diesel fuel additives are approved exclusively for use in DEUTZ diesel engines. Their use is only recommended for the listed applications subject to the above conditions. If you have any queries, please contact our head office. The use of other, unapproved additives may lead to the loss of warranty rights.

Designation	Container size	Part number
DEUTZ CLEAN-DIESEL INSYPRO PLUS	1 litres	01016710
DEUTZ START BOOST	1 litres	01091262
DEUTZ FLOW BOOST	1 litres	01091260

T1: DEUTZ diesel fuel additives







A1: DEUTZ diesel fuel additives

# Safety data sheets

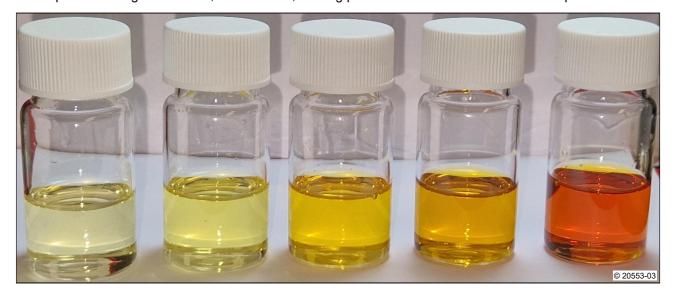
Safety data sheets for DEUTZ products can be downloaded online.



Safety data sheets
 <a href="http://www.deutz-sdb.com/de/sdb-de.html">http://www.deutz-sdb.com/de/sdb-de.html</a>

## **DEUTZ CLEAN-DIESEL INSYPRO PLUS**

The fuel components, especially biodiesel components, can decompose under the influence of temperature, atmospheric oxygen or due to time. This produces deposits in the injection system during operation, which can cause the injectors and pumps to stick, especially in current Common Rail injection systems. The consequences are ignition failure, black smoke, starting problems and increased fuel consumption.



A2: Change in pure biodiesel in storage at 50 °C. Oxidised fuel components give biodiesel a dark colour.

To avoid these negative influences, DEUTZ AG has developed a 2-in-1 diesel fuel additive specially adapted to DEUTZ diesel engines for modern engines which require fuel of the highest quality, especially if using fuel with a proportion of biodiesel. This protects and cleans the injection components and stabilises the diesel fuel against ageing.





# "Keep Clean" application type

As a stabiliser, it increases the amount of time diesel fuels can be stored, prevents the accumulation of deposits and guarantees a safe engine start after long periods without use.

- Increase in the oxidation stability of the diesel fuel used when using biogenic fuels (biodiesel (FAME) or plant oils)
- Reduces residues and agglutination in the injection system
- · Extension of shelf life
- Reduction of filter contamination and filter blockage

# "Clean-Up" application type

As a pressure cleaning agent, it dissolves deposits in the injection components and prevents loss of power and increased fuel consumption.

- Cleaning and removal of deposits in injectors, injection pumps and lines
- Normalisation of increased smoke values
- Reduction of fuel consumption with improved engine performance
- · Protection against corrosion
- Improvement of poor lubricating properties

### Areas of application

The additive is suitable for all internationally approved diesel fuels and biodiesel fuels as well as diesel blends and biodiesel blends.

The use of the diesel fuel additive DEUTZ CLEAN-DIESEL INSYPRO PLUS is approved for the stated dosage for all current DEUTZ diesel engines with and without exhaust gas aftertreatment and in all emission stages.

Tests on injection components in use in the field have revealed that these can be returned to a functioning state in case of problems by treating with DEUTZ CLEAN-DIESEL INSYPRO PLUS and therefore save cost-intensive replacements.

Machine downtimes are also avoided as well as saving costs. For the above reasons we urgently recommend the use of DEUTZ CLEAN-DIESEL INSYPRO PLUS when the following conditions are met:

"Keep Clean" application type

(Preventative protection/diesel purification)

- Devices which are not put into operation at the OEM or for more than 3 months after
- Engines which are shut down at the end customer's premises for more than 3 months (for example harvesting machinery)
- Operation with biodiesel (FAME)
- Operation with pure plant oil
  - (only applies for DEUTZ Natural Fuel Engine®), see Technical Bulletin 0199-99-01218 for fuels
- Corrosion protection of engines (see Technical Bulletin 0199-99-01170)
- "Clean-Up" application type

(Shock cleaning)

- Devices which are operated in regions with poor quality fuel
- If problems in the injection system (start problems and increased smoke values) are reported, at least one or better still two tank fillings should be operated with the additive in the fuel before exchanging expensive components.





## **Application instructions**



See the safety instructions in the safety data sheet.



Safety data sheets
 <u>http://www.deutz-sdb.com/de/sdb-de.html</u>

Repeated application is recommended in conjunction with lubricating oil changes (usually every 500 OH).

#### Dosing



#### **ATTENTION**

Avoid overdosing.

The stated dosage of the DEUTZ CLEAN-DIESEL INSYPRO PLUS additive must be adhered to precisely, as otherwise no optimum effect can be achieved.

For good mixing, first put in the additive and then top up with diesel fuel.

DEUTZ CLEAN-DIESEL INSYPRO PLUS		
Preventative protection/diesel purification  "Keep Clean"	Shock cleaning "Clean-Up"	
1:400	1:200	
or	or	
1 litre per 400 litres of diesel fuel	1 litre per 200 litres of diesel fuel	
0.5 litre per 200 litres of diesel fuel	0.5 litre per 100 litres of diesel fuel	
0.25 litre per 100 litres of diesel fuel	0.25 litre per 50 litres of diesel fuel	

T2: Dosing

#### **DEUTZ START BOOST**

DEUTZ START BOOST is a powerful diesel fuel additive which ensures the starting capability of equipment after long periods of standstill and significantly improves the storage stability of the diesel fuel. The shelf life of the diesel fuel is supported by stabilisers and its combustibility is increased by a cetane count improver.

#### **Properties**

- Increase in start reliability by improving the combustibility
- Increase in the shelf life of the diesel fuel by improving the oxidation and thermal stability
- · reduces corrosion and wear
- protects the tank, fuel lines and filter against the formation of microorganisms (diesel bug)

#### Areas of application

- Protection of emergency power systems
- Upgrade of locally available, lower diesel fuel qualities

## **Application instructions**



See the safety instructions in the safety data sheet.

The additive may only be used by commercial customers and is subject to the special conditions of the Prohibition of Chemicals Ordinance (ChemVerbotsV).







 Safety data sheets http://www.deutz-sdb.com/de/sdb-de.html

## **Dosing**



#### **ATTENTION**

Avoid overdosing.

For good mixing, first put in the additive and then top up with diesel fuel.

# DEUTZ START BOOST 1:1000 or 1 litre of DEUTZ START BOOST to 1000 litres of diesel fuel

T3: Dosing

## **DEUTZ FLOW BOOST**

DEUTZ FLOW BOOST is a powerful diesel fuel additive which can improve the performance of the fuel at low temperatures by up to -10 °C. Special additives prevent the formation of large paraffin crystals and protect the fuel filters and lines from possible clogging.

## **Properties**

- Allows summer and transition diesel to be used for longer (Court and company fuel stations)
- Ensures usability via an improved cold start behaviour
- · Prevents the fuel lines and filters from clogging

#### Areas of application

- Use of summer and transition diesel for low outdoor temperatures
- · Upgrade of locally available, lower diesel fuel qualities

## **Application instructions**



See the safety instructions in the safety data sheet.



 Safety data sheets http://www.deutz-sdb.com/de/sdb-de.html



#### **ATTENTION**

DEUTZ FLOW BOOST is not a substitute for winter diesel at extremely cold outside temperatures (from -20 °C). Winter and arctic qualities must be used.

### Dosing



#### **ATTENTION**

Avoid overdosing.

For good mixing, first put in the additive and then top up with diesel fuel.

For subsequent addition, circulate the tank contents while on farm and company petrol stations.

The biodiesel content of the diesel fuel must not exceed 20%.





#### **DEUTZ FLOW BOOST**

1:1000

or

1 litre of DEUTZ FLOW BOOST to 1000 litres of diesel fuel

T4: Dosing

# Storage and shelf life



#### **ATTENTION**

In order to avoid malfunctions when using DEUTZ diesel fuel additives due to overageing, the information on shelf life must be observed. The prerequisite for this is always proper storage of the containers.

#### Storage

- dry
- Storage temperature
  - frost-free
  - where possible at room temperature (about 20 °C) not over 40 °C
- Tightly seal opened containers

#### Shelf life at room temperature

- New containers in unopened original packaging
  - 24 months
- Opened and tightly sealed original containers
  - use within 6 months

## **Contact**

If you have questions about any of the topics mentioned here, please contact us using the details given below:

e-mail: <u>lubricants.de@deutz.com</u>

DEUTZ Ticket System (DTS): <a href="https://www.dts-deutz.com">https://www.dts-deutz.com</a> (for registered users only)

Email: service-kompaktmotoren.de@deutz.com

For the America region:

e-mail: service.usa@deutz.com

For the Asia region:

e-mail: dapservice@deutz.com

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