

## CMT Cat Fines Test

**Cat Fines, primarily chemical aluminum and silicon compounds, are catalysts, which are used to optimize the cracking process for the production of petrol and other fuels.**

Although useful for the production Cat Fines are extremely abrasive and have to be removed from the oil residues after the refining process to avoid severe damages to the engines running with residual fuel oil.

There is not a 100% effective method of filtering out the Cat Fines from the cracking process. For Marine bunker fuel the limit of the Cat Fines concentration is max. 60 ppm according to ISO 8217 : 2012 (latest edition).

On the other hand requirements of the manufacturers of Diesel engines allow for not more than 10 ppm Cat Fines in the fuel before it enters the engine.

Currently the dominant cleaning method for fuel used on board ships or in power plants is the centrifugal separation.

Separators must be able to separate the majority of water, other relevant impurities and Cat Fines by more than 90% to fulfill the engine manufacturers' requirements.

Although the amount of Cat Fines in the bunkered fuel is known from the documentation provided by the supplier, the Cat Fines content before the fuel

oil separators and consequently before entering the engine is usually unknown.

Due to accumulation in storage- or day tanks over time the concentration of Cat Fines before separators and consequently before the engines may deviate significantly from the demanded value, especially during rough sea passages.

To measure the actual and current Cat Fines concentration in the fuel on board with a reasonable degree of accuracy has not been possible so far.

With the **CMT Cat Fines Test Kit** you are capable of determining the concentration of catalytic fines in fuel.

The affordable test is easy to perform and the device displays directly the measured values in "ppm" with high accuracy.

From the start without expert knowledge everyone is able to use the **CMT Cat Fines Test Kit**.

Due to the short test time it is possible to perform several tests in a short period allowing the user of the **CMT Cat Fines Test Kit** the on-board measurement of Cat Fines in fuel samples at different sample points and different significant "moments" of the engine operation.

- Determine the content of Cat Fines during and after fuel bunkering.
- Evaluation of the efficiency of the fuel treatment plant especially of the effectiveness of the separators, fuel filters and settling tanks.
- Determine the Cat Fines content before injection.

Usage of the **CMT Cat Fines Test Kit** protects the engine (injection pumps and nozzles, cylinder liners, piston and piston rings) against excessive wear caused by Cat Fines and helps you to save money on engine wear parts, maintenance and repairs.

### Your benefits:

- Low investment costs
- Revolutionary new system
- No auxiliary systems necessary
- No installation required
- A quick test procedure allows multiple tests at different sampling points
- Low costs per test
- Only small sample size needed
- Portable and therefore usable anywhere on board

**Patent pending**

(EP 15177929)



### Ordering Information

OTK-CT-11218

**Cat Fines Test Kit**

OTR-CT-12009

**Cat Fines Reagent Pack**

SAM-CT-770071

**500 ml Fuel Oil Sample Bottle Pack**

OTR-CT-12010

**Vial Cleaner**