

# MT CAT FINES CHECK

## Cat Fines Determination Test Kit for Al and Si based Cat Fines

Catalyst fines are hard particles of abrasive nature consisting of aluminium and silicon oxide, and are used in the refinery process of crude oil. It can happen that these particles remain in the bunker fuel. Due to their scouring action, cat fines are regarded as potential risk for ship engines. The MT CAT FINES CHECK is specifically developed for easy and quick assessment of the particles content in residual fuels like HFO directly on-site. The device enables the regular monitoring of the oil condition in order to check whether the cat fines are present in the heavy fuel oil or not. Thereby, this can help to ensure the effective functioning of the engine.



### Features:

- Measuring time: about 15 min.
- Up to 8 simultaneous measurements possible
- Visually quantifiable

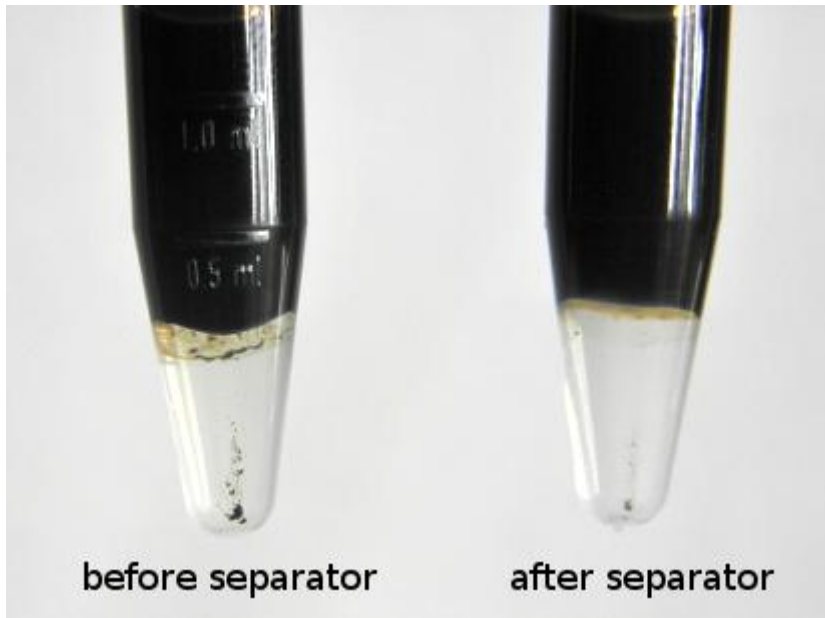
### Benefits:

- Easy and quick test method
- Applicable for all types of heavy fuel oil
- Demonstrative test results
- Easy to use even for untrained personnel
- Cost-effective testing method

This simple and quick test method enables regular testing of heavy fuel oil samples before and after a separator as well as prior to using the oil for engine operation. The relevant HFO samples are getting prepared and diluted in glass vials. After that plastic microcentrifuge tubes are filled with the obtained mixture from glass vials and a reagent. The microcentrifuge tubes are placed in the centrifuge in a parallel position (when there is an odd number of microcentrifuge tubes, a filled plastic tube has to be used to balance the centrifuge).

It is recommended to mark each microcentrifuge tube in order to know which HFO sample is under inspection. After 10 minutes the samples can be taken out of the centrifuge and the end-results, namely the level of cat fines presence in the heavy fuel oil, can be assessed.

As shown in the picture below two heavy fuel oil samples can be directly compared. The example depicts the degree of cat fines found in the HFO before and after a separator. A visual quantification by means of the Comparison Chart (part of each test kit MT CAT FINES CHECK) is possible.



A significant characteristic of the bunker fuel quality is the established limited content of cat fines in it. However, as the HFO undergoes the cleaning process in a separator before its actual use for the engine, the presence of cat fines should be significantly reduced. Consequently, the MT CAT FINES CHECK helps to estimate the quality of the bunker fuel oil delivered on board, on the one hand, and the functioning of the cleaning system and separators, on the other hand.

**Visual Quantification by means of Comparison Chart MT CAT FINES CHECK**

