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From CP/MAE	Description for Determining Residual Contamination	Originator Kr	Date 21.4.10

The standard when determining residue contamination is DIN EN 12662. This standard is used to determine middle distillate contamination.

Devices, chemicals, preparation and work procedure are outlined in the aforementioned standard.

Detailed suggestion for implementation:

- Rinse both sides of the filter with ethyl alcohol — preferably filtered (see below — Additional Comments)
- Dry the filter at 80°C for approximately one hour in the drying chamber (use an uncovered Petri dish) Cool it in the dessicator for approximately one hour
- Calculate the empty weight of the filter in "mg" to one decimal place;
- Clamp the filter with 0.8 µm of test membrane in the vacuum filtration unit
- Weigh the sample bottle (total weight)
- Mix the sample well and put it through the filter. Rinse the sample bottle with demineralized water, (followed by ethyl alcohol) and pour this through the filter (empty the contents of the bottle for a fixed period of time, for example, 30 or 60 seconds)
- Afterwards, rinse the filter with water (demineralized) and with a sufficient amount of alcohol, in order to remove traces of grease and oil. (Otherwise, gravimetric analysis will be higher)
- Weigh the sample bottle (empty weight)
- Dry the filter at 80°C for approximately one hour in the drying chamber (use an uncovered Petri dish) Cool it in the dessicator for approximately one hour
- Weigh the filter
- The result of the gravimetric analysis highlights the difference in relation to the quantity of the sample. The gravimetric result is expressed in 1000 g

It is advisable to filter the alcohol in advance using a suitable filter (e.g. 1 µm membrane filter) when carrying out gravimetric analysis, in order to avoid contamination of the solvents and, thus, inaccurate results. Furthermore, it is also important to pay close attention to the sterility of the laboratory implements used.

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