LCW916 Membrane Filtration Set

DOC312.53.94381

Sample Preparation (pore width 0.45 µm) LCW916

Scope and application:

Test preparation

Before starting

Purpose

In general, photometric methods are used to analyze only dissolved, and not complexed bonded substances. The solutions to be analyzed must be clear, for example, free from any turbidity, as this would possibly lead to ambiguous results. Even measurement against the turbid sample will not eliminate this fault in every case. Therefore, each sample should principally be filtered, prior to analysis.

Contents of Package

1. Syringe
2. Filtration insert

Application

High-precision pressure filtration of aqueous solutions, water, sewage, diluted acids and lyes.

Particularly suited for the filtration of samples with highly volatile constituents (formaldehyde, cyanide, ozone, ammonia, hydrazine, etc.).

Not suited for concentrated acids and lyes, organic solvents.

Special notes

Turbidity is frequently observed in industrial waste water. It is caused by insoluble ingredients partly originating from the metalworking industries, in the form of heavy-metal hydroxides, sulfides or carbonates, and partly from the food processing industry, in a colloidal form (protein, starch). Filtration of such a sample should take place at a certain point in the operating process, depending on which constituents are going to be analyzed in the waste water. The following should be noted:

For the determination of anionic or dissolved constituents, the sample is ***filtered*** and directly analyzed with the appropriate test (ammonium, chlorine, chloride, cyanide, fluoride, formaldehyde, nitrate, nitrite, phospate (dissolved), ozone, sulphate, TOC etc.).

For determining the COD content, the sample is ***not to be filtered***, but analyzed directly with the appropriate COD test, according to the currently applicable regulations (LCK014, LCK114, LCK314, LCK414, LCK514, LCK614).

For determining the total heavy-metal content, the sample is ***not to be filtered***, but firstly homogenized and then solubilized using the Crack-Set LCW902. Only if turbidity is still present should the sample be filtered.

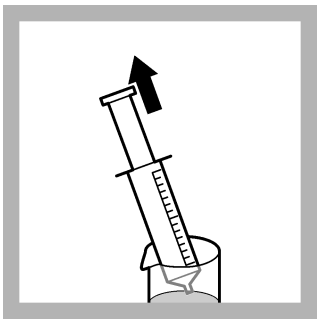
Review safety information and expiration date on the package.

Review the Safety Data Sheets (MSDS/SDS) for the chemicals that are used. Use the recommended personal protective equipment.

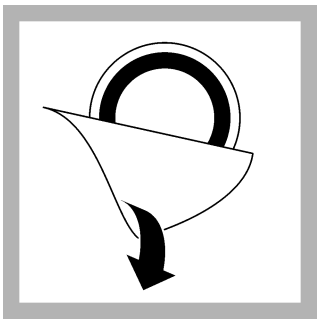
Dispose of reacted solutions according to local, state and federal regulations. Refer to the Safety Data Sheets for disposal information for unused reagents. Refer to the environmental, health and safety staff for your facility and/or local regulatory agencies for further disposal information.

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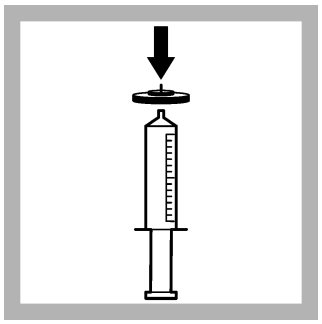
Procedure



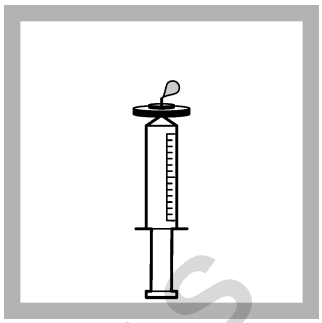
1. Draw about **5 mL** of the sample which is to be filtered into the enclosed syringe.



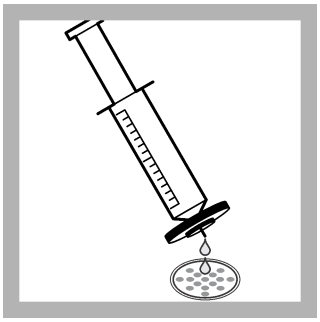
2. Remove the filter attachment from the blister pack and place it on the syringe.



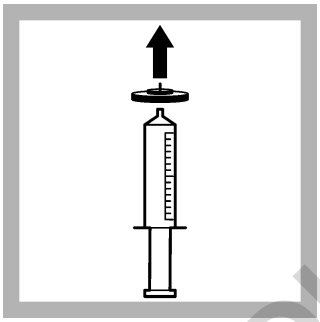
3. Fit the filtration attachment firmly on the Luer connection of the syringe.



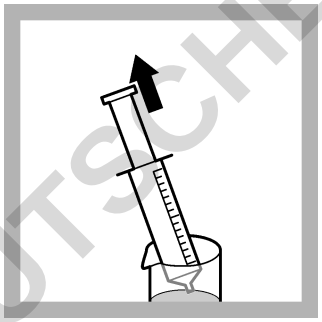
4. Hold the syringe with the filtration attachment pointing upwards and **slowly press the liquid upwards**.
This ensures a good wetting of the membrane filter and avoids air bubbles.



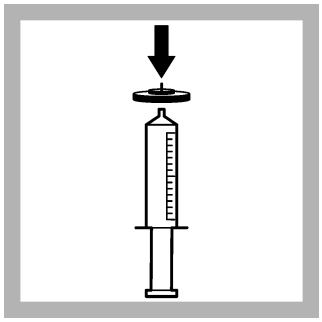
5. Now filter the sample and discard the filtrate.



6. Remove the filtration attachment fom the Luer connection of the syringe.



7. Draw about **10 mL** of the sample which is to be filtered into the syringe.



8. Fit the prepared filtration attachment firmly on the Luer connection of the syringe.



9. Filter the sample into a vessel provided for this purpose.
The filtered sample can now be used for the required determination.

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Summary of method

Deposits and turbidity can be removed by pressure filtration using plastic membrane filters (pore width 0.45 µm).

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