

Sample Preparation

LCW 903

Scope and application: For water with high calcium/magnesium concentrations prepared for cadmium determination.



Test preparation

Test storage

Storage temperature: 15–25 °C (59–77 °F)

Before starting

Purpose

The calcium separation set enables a cadmium determination with cuvette test LCK 308. Calcium and magnesium ions are selectively separated from cadmium ions. Perform LCW 903 for the cadmium determination by means of LCK 308 with a Ca/Mg concentration > 50 mg/L.

Range of application

The separation set can be used to treat samples containing calcium and magnesium concentrations of up to 5000 mg/L so that interference-free cadmium determinations can be carried out. If higher concentrations are present the whole separation process must be repeated.

Contents of package

1. Molecular sieve
2. Membrane filtration attachments
3. Disposable syringe
4. Dosing spoon

Storage Information

The separation set can be stored at 15–25 °C (59–77 °F) for an indefinite period.

Information

The separation of calcium and magnesium is only possible in conjunction with the complexing solution A of the LCK 308 cuvette test. Other applications for the separation set have not yet been tested.

For special attention

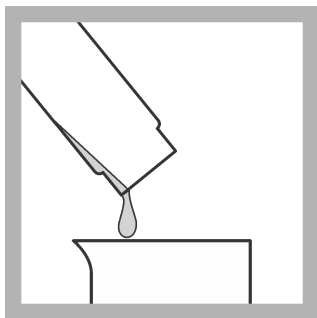
After each separation the syringe must be thoroughly rinsed with distilled water.

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.

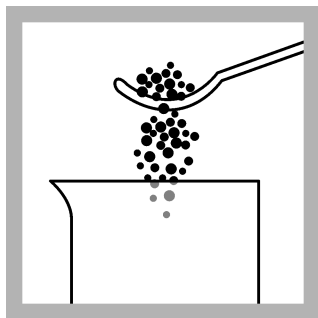
Dispose of reacted solutions according to local, state and federal regulations. Refer to the Safety Data Sheets for disposal information for unused reagents. Refer to the environmental, health and safety staff for your facility and/or local regulatory agencies for further disposal information.

Procedure

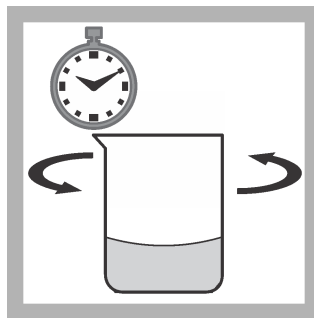


1. Add to a beaker:
pretreated water sample from LCK 308.

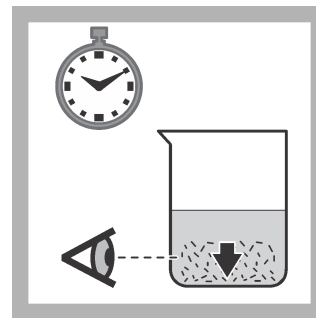
(complete contents of the reaction tube)



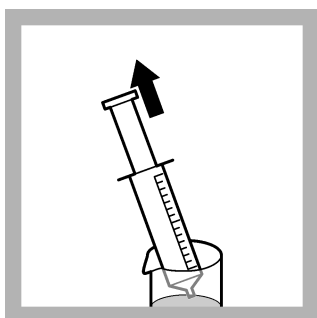
2. Add to the beaker:
1 spoonful molecular sieve.



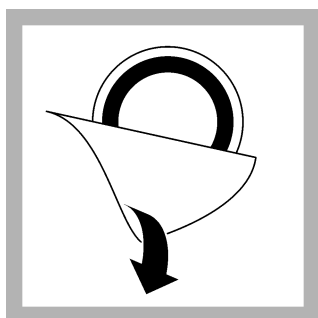
3. Shake beaker for
1 minute.



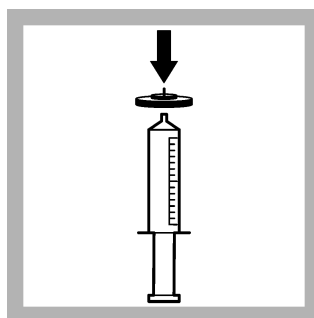
4. Then allow to stand for at
least 10 minutes.



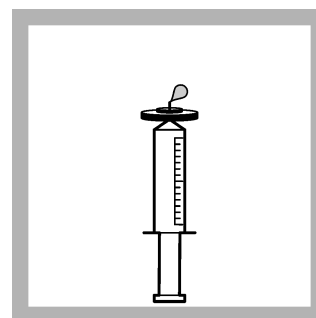
5. Draw the supernatant
liquid into the syringe.



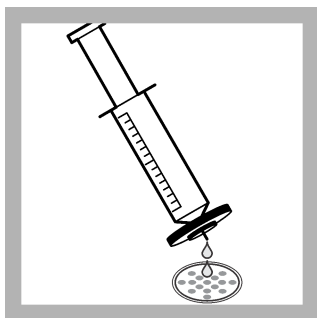
6. Remove the filter
attachment from the blister
pack and place it on the
syringe.



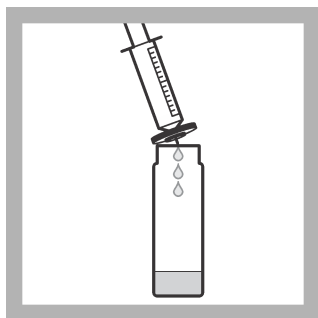
7. Fit the filtration
attachment firmly on the
Luer connection of the
syringe.



8. Hold the syringe with the
filtration attachment pointing
upwards and **slowly press
the liquid upwards** until the
membrane filter is wetted.



9. Press the sample slowly
through the filter
attachment. Discard the
first 15 drops
(approximately 1 mL).



10. Catch the rest in the
reaction tube from LCK 308.

The clear solution obtained is virtually free from calcium and magnesium ions and can be analyzed for cadmium. The further analysis is carried out in accordance with the working procedure for cuvette test LCK 308.



HACH LANGE GMBH
Willstätterstraße 11
D-40549 Düsseldorf

Tel. +49 (0) 2 11 52 88-0
Fax +49 (0) 2 11 52 88-143

info-de@hach.com
www.hach.com