LCK 014
Chemical Oxygen Demand (COD)

1000–10.000 mg/L O_2 **LCK 014**

Scope and application: For wastewater and process analysis.

Test preparation

Test storage

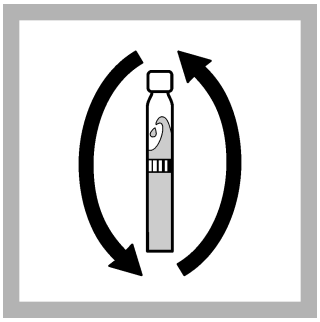
Storage temperature: 15–25 °C (59–77 °F)

Protect against light.

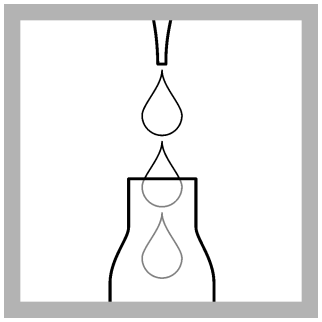
Before starting

In contrast to the classic COD Cuvette Test (COD classic), the HT-COD Test is characterized by a higher digestion temperature and shorter digestion time. Users are advised to carry out a comparison with the COD classic, in order to be sure that the results obtained from their own samples when using the HT-COD are comparable to the standard.
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.

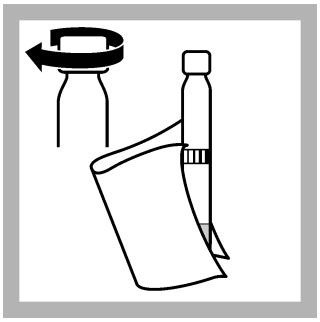
Procedure



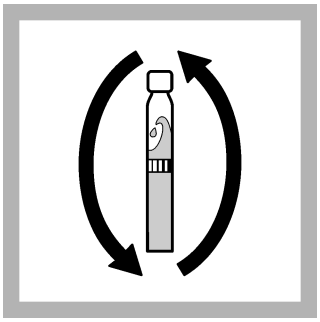
1. Invert a few times to bring the sediment into suspension.



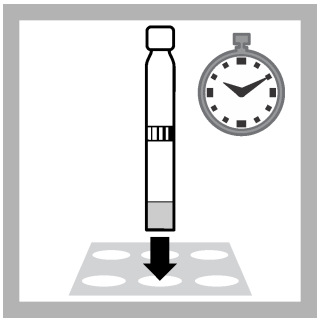
2. Carefully pipet **0.5 mL** of **sample**.



3. Close the cuvette, thoroughly clean the outside of the cuvette.

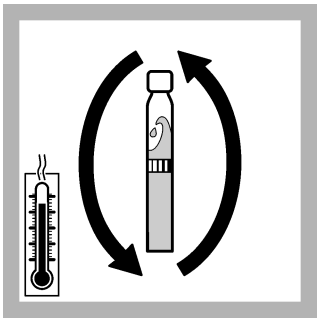


4. Invert.



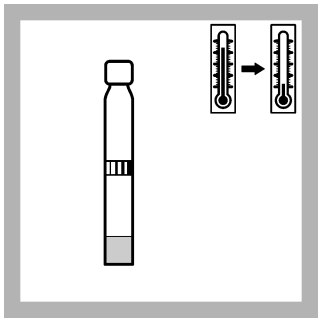
5. Heat in the thermostat.
COD classic: for **2 hours** at **148 °C (298.4 °F)**.

HT 200 S: in the standard program HT for **15 minutes**.



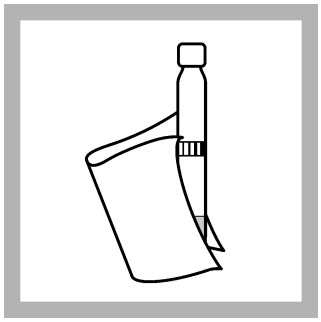
6. Remove the **hot** cuvette.
COD classic: Carefully invert **twice**.

HT 200 S: After the lock opens, carefully invert **twice**.

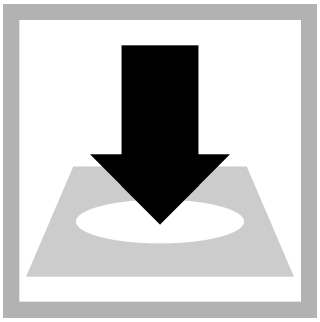


7. Allow to **cool** to room temperature.
COD classic: in a cooling rack.

HT 200 S: in the thermostat.



8. Thoroughly clean the outside of the cuvette and evaluate.
Note: *The sediment must be* ***completely settled*** *before evaluation is carried out.*



9. Insert the cuvette into the cell holder.
DR 1900: Go to LCK/TNTplus methods.
Select the test, push **READ**.

Interferences

The method can be used for water samples with chloride concentrations of up to 5000 mg/L. Higher chloride concentrations cause high-bias results. The measurement results must be subjected to plausibility checks (dilute and/or spike the sample).

Summary of method

Oxidizable substances react with sulphuric acid and potassium dichromate solution in the presence of silver sulphate as a catalyst. Chloride is masked by mercury sulphate. The green coloration of Cr^{3+} is evaluated.

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