LCK 238 LATON

DOC312.53.94006

5–40 mg/L Total Nitrogen, TN_b LCK 238

Scope and application: For water and wastewater.

Test preparation

Test storage

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

pH/Temperature

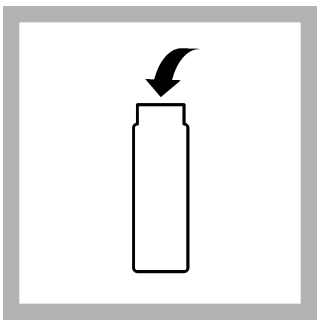
The pH of the water sample must be between pH 3–12.

The temperature of the water sample and reagents must be between 15–25 °C (59–77 °F).

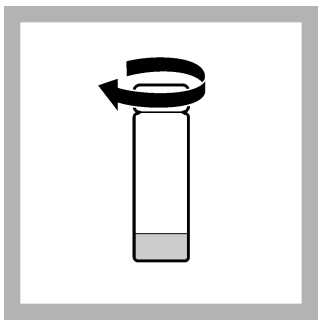
Before starting

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.
Sodium hydroxide solution A / Oxidant tablet B: After the addition of reagents A and B, the bottles must be reclosed **immediately**.
Reaction Tubes: A 20-mm-reaction tube is recommended to be used for 7 times. After use, clean thoroughly with a brush and tap water. Rinse well with nitrogen-free distilled water and dry.
Turbidity: Slight turbidities present do not interfere.

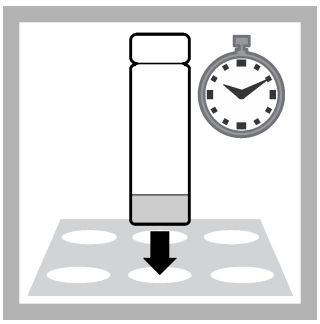
Procedure



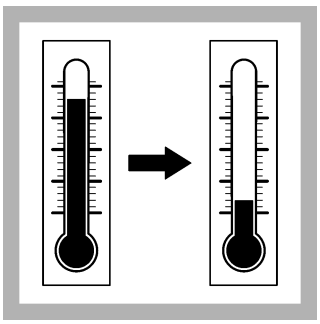
1. Add in **quick succession** to a dry reaction tube: **0.5 mL sample, 2.0 mL solution A, 1 tablet B**.



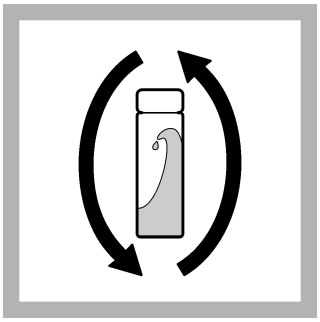
2. Close **immediately** the reaction tube. **Do not invert.**



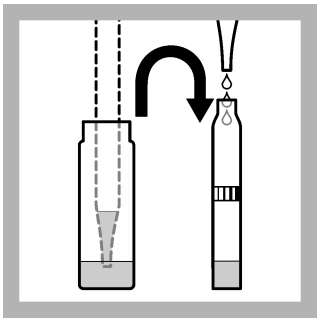
3. Heat **immediately**.
HT 200 S: in the standard program HT for **15 minutes**.
Thermostat: for **30 minutes** at **120 °C (248 °F)**.



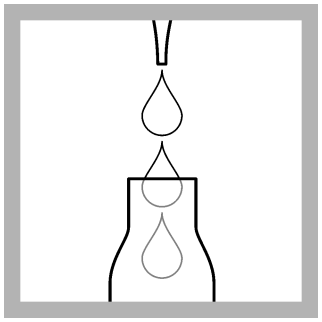
4. Allow to **cool** to room temperature.



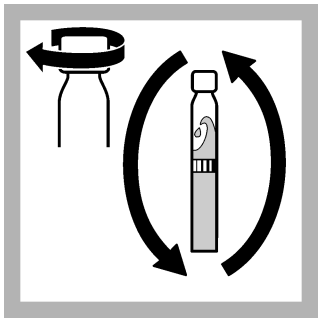
5. Invert a few times.



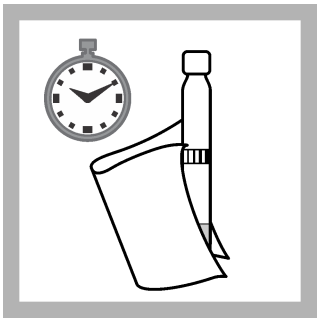
6. Slowly pipet into the Cuvette Test: **0.5 mL** of **digested sample**.



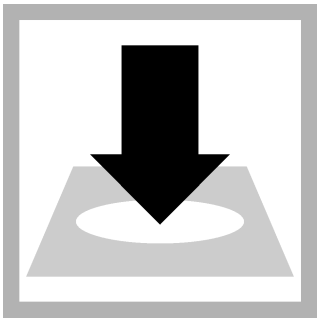
7. Slowly pipet **0.2 mL** of **solution D**.



8. Immediately close the cuvette and invert a few times until **no more streaks** can be seen.



9. After **15 minutes**, thoroughly clean the outside of the cuvette and evaluate.



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

Interferences

A slight pink color may develop during the reaction. This color will not interfere with the analysis.

The ions listed in the table have been individually checked against the given concentrations and do not cause interference. The cumulative effects and the influence of other ions have not been determined.

Low-bias results are expected if the samples contain large amounts of reducing agents.

The measurement results must be subjected to plausibility checks (dilute and/or spike the sample).

Interference level	Interfering substance
2000 mg/L	Cl^-
1000 mg/L	COD

Summary of method

Inorganically and organically bonded nitrogen is oxidized to nitrate by digestion with peroxo-disulphate. The nitrate ions react with 2.6-dimethylphenol in a solution of sulphuric and phosphoric acid to form a nitrophenol.

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