

25–400 mg/L CaCO₃

TNTplus®—Method 10239

Scope and application: For drinking water, wastewater and boiler water.



Test preparation

Reagent storage

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

Temperature

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

Before starting

Samples with an alkalinity above 400 mg/L CaCO₃ must be diluted with distilled water that contains no carbon dioxide (eliminate by, e.g., boiling). The absence of carbon dioxide in the water used for dilution can be checked by carrying out a blank measurement.

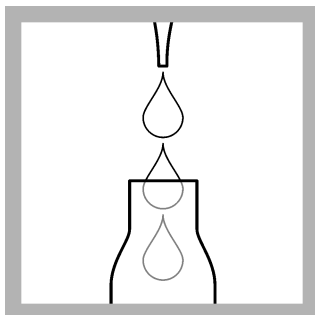
Any air bubbles clinging to the wall of the vial can be dislodged by giving the vial a short sharp shake or by tapping the vial gently against a surface.

Review safety information and expiration date on the package.

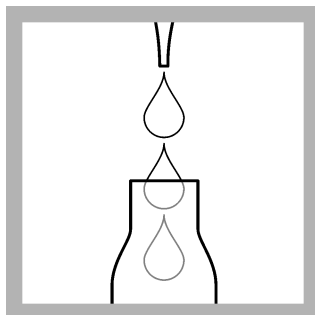
Review the Safety Data Sheets (MSDS/SDS) for the chemicals that are used. Use the recommended personal protective equipment.

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.

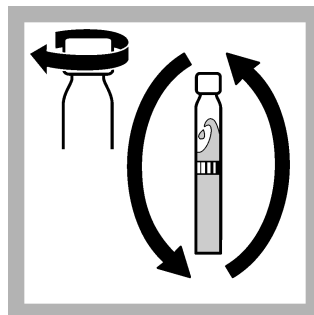
Procedure



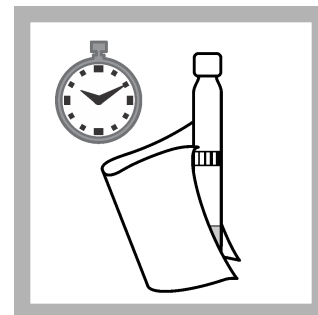
1. Carefully pipet **2.0 mL** of **solution A**.



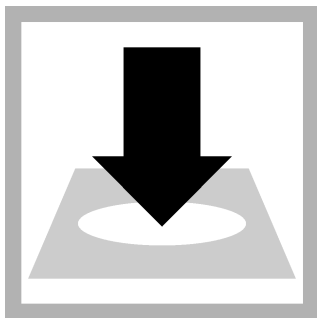
2. Carefully pipet **0.5 mL** of **sample**.



3. Close the vial and invert a few times until the freeze-dried contents are **completely dissolved**.



4. After **5 minutes**, thoroughly clean the outside of the vial and evaluate.



5. Insert the vial into the cell holder.

DR 1900: Go to LCK/TNTplus methods. Select the test, push **READ**.

Interferences

Samples containing particles must be filtered (use membrane filter with pore size 0.45 µm or folded filter).

If measurements are carried out on a sample that has been allowed to settle, a large degree of scatter as well as high-bias results can be expected.

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

Summary of method

Carbonates and other buffers react with the reagent in the vial, causing a change of pH to occur. This change is shown by an indicator and is photometrically evaluated.

TNT_{plus}[®]



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