

Overview

The test is suitable for the photometric determination of Formaldehyde.

The test is suitable for surface water, groundwater, drinking water, and engineered wood.

- Measuring range: 0.1–8.0 mg/L HCHO (method 0411)
- Number of tests: 20
- Wavelength for photometric determination: 585 nm
- Shelf life: 24 months
- Reaction time: 5 minutes
- Storage temperature: 15–25 °C
- Storage conditions: upright

Method

Formaldehyde reacts in sulphuric acid solution with chromotropic acid to form a purple dye.

Interferences

The foreign materials shown here do not interfere with the test up to the indicated concentrations (in mg/L). The cumulative effect of different interfering ions has not been tested.

Data in mg/L:

- Pb^{2+} , Fe^{2+} , Fe^{3+} , NO_3^- , S^{2-} : 10
- NO_2^- : 1
- Acetaldehyde: 0.5

This method is not suitable for analyzing seawater.

Turbidities cause higher measurement values.

If there is uncertainty regarding the range of the concentration of the sample, a preliminary test with QUANTOFIX formaldehyde (REF 91328) will provide information regarding the necessary dilution for the determination.

Reagents and accessories

Contents of reagents set:

- 20 test tubes R0
- 1 reagent R2
- 1 measuring spoon, black, 70 mm

Required devices:

- MACHEREY-NAGEL photometer
- Digital piston pipette 1–5 mL (REF 916909) with pipette tips (REF 916916)

Sampling and preparation

See DIN EN ISO 5667-3-A 21.

Adjust to pH 0–13 prior to analysis.

Quality control

The measurement of a blank value and a standard is recommended before every measuring series as quality control measure.

LOT-specific certificates are available at www.mn-net.com.

Procedure

1. Open test tube
2. Slowly pour 2 mL sample solution onto the tube contents (do not mix, hold cuvette at an angle)
3. Add 1 level measuring spoon of reagent R2
4. Close cuvette and swirl until the reagent is completely dissolved (use safety container, cuvette becomes hot!)
5. Wait 5 min
6. Clean outside of test tube
7. Measure

Notes

When using other photometers, make sure measurements are possible in test tubes (16 mm OD) and calibrate the method.

Use the correction value when measuring cloudy or colored samples (see photometer handbook).

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