visocolor® ECO

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Silica HR 200

Test kit for the photometric determination of silica in surface water and sewage

Method:

Silica reacts under acidic conditions (pH 1–2) with molybdate to form yellow colored molybdosilicic acid.
The reaction principle is analogous to US standard methods 4500-Si D.

Measurement range:

5–100 mg/L Si
10–200 mg/L SiO_2

Contents of test kit:

sufficient for 100 determinations

- 28 mL SiO_2-1
- 20 g SiO_2-2
- 28 mL SiO_2-3
- 1 measuring spoon 85 mm
- 1 plastic syringe 5 mL
- 1 instructions for use

Hazard warning:

SiO_2-2 contains sulfamic acid 50–100 %.
For further information please ask for a safety data sheet.

Instructions for use:

Requisite accessories: test tube 16 mm OD (REF 916 80).

1. Rinse test tube 16 mm OD several times with the sample and fill with **5 mL sample**.
2. Place test tube in photometer (PF-3) as blank value and adjust for zero.
3. Add **5 drops of SiO_2-1**, close test tube and mix.
4. Add **1 level measuring spoon of SiO_2-2** close test tube and mix. Wait for **2 min**.
5. Add **5 drops of SiO_2-3**, close test tube and mix.
6. Clean outside of test tube and measure after **2 min**.

Measurement:

See manual for photometer PF-3.
After use, rinse out test tube thoroughly and seal them.

Disposing of the samples:

The used analysis specimens can be flushed down the drain with tap water and channelled off to the local treatment works.

Interferences:

The following quantity of phosphate will not interfere:
≤ 150 mg/L PO_4^{3-}
In US standard methods 4500-Si D at least one form of silica is mentioned which is unreactive with respect to molybdate.
Molybdate-unreactive silica can be converted to the molybdate-reactive form by heating or fusing with alkali (e.g. digestion with sodium bicarbonate $NaHCO_3$).

Storage:

Store the test kit in a cool (< 25 °C) and dry place.

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