

REF 985 034

en

Test 0-34

03.15

**NANOCOLOR® Cationic surfactants 4**

#### Method:

Photometric determination with disulfine blue

Range:	0.20–4.00 mg/L CTAB
Factor:	02.75
Wavelength (HW = 5–12 nm):	620 nm
Reaction time:	10 min (600 s)
Reaction temperature:	20–25 °C

#### Contents of reagent set:

20 test tubes Cationic surfactants 4

1 test tube with 11 mL Cationic surfactants 4 R2

#### Hazard warning:

Test tubes contain chloroform 90–100 % and methanol 3–10 %, reagent R2 contains ethanol 5–20 %.

H351, H361 Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

P201, P202, P280, P308+313, P405 Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves / eye protection. IF exposed or concerned: Get medical advice / attention. Store locked up. For further information ask for a safety data sheet.

#### Interferences:

Anionic surfactants cause low results, depending on the kind of the anionic surfactant.

The following ions will not interfere: < 1000 mg/L Na<sup>+</sup>, Cr(III), Zn<sup>2+</sup>, Cl<sup>-</sup>, PO<sub>4</sub><sup>3-</sup>; < 500 mg/L NO<sub>3</sub><sup>-</sup>, SO<sub>4</sub><sup>2-</sup>; < 200 mg/L NH<sub>4</sub><sup>+</sup>, Cu<sup>2+</sup>, NO<sub>2</sub><sup>-</sup>; < 100 mg/L Al<sup>3+</sup>, Ca<sup>2+</sup>, Mg<sup>2+</sup>; < 20 mg/L Fe<sup>3+</sup>; < 10 mg/L Cr(VI), Ni<sup>2+</sup>.

The method can be applied also for the analysis of sea water after dilution (1+19).

#### Procedure:

Requisite accessories: piston pipette with tips

Open test tube, add

4.0 mL test sample (*the pH value of the sample must be between pH 2 and 9*) and 500 µL (= 0.5 mL) R2, **close and shake gently for 2 min (with a frequency of 2–3 times per second)**.

Clean outside of test tube and measure after 10 min (*wait for phase separation*).

#### Measurement:

For NANOCOLOR® photometers and PF-12 see manual, test 0-34.

#### Note:

The calibration data is calculated as *N*-cetyl-*N,N,N*-trimethylammonium bromide (CTAB). For measuring other cationic surfactants verify calibration data by measuring standard solutions.

#### Measurement when samples are colored or turbid:

For all NANOCOLOR® photometers see manual, use key for correction value.

#### Photometers of other manufacturers:

For other photometers check whether measurement of round glass tubes is possible. Verify factor for each type of instrument by measuring standard solutions.