REF 985047

en

Test 0-47 03.23
NANOCOLOR® Nonionic surfactants 15

Method:
Nonionic surfactants (ethoxylates with 3 to 20 ether bridges) react with an indicator (TBPE) to form a complex, which is extracted with dichloromethane.

Range:	**0.3 – 15.0 mg/L Triton® X-100**
Wavelength (HW = 5 – 12 nm):	**620 or 610 nm**
Reaction time:	**2 min (120 s)**
Reaction temperature:	**20 – 25 °C**

Contents of reagent set:
20 test tubes Nonionic surfactants 15

Hazard warning:
Test tubes contain dichloromethane 90 – 100 % and methanol 3 – 10 %.
H341, H351 Suspected of causing genetic defects. Suspected of causing cancer.
P201, P280 sh Obtain special instructions before use. Wear protective gloves / eye protection. For further information ask for a safety data sheet.

Interferences:
Cationic surfactants cause high results.
Anionic surfactants cause low results, depending on the kind of the anionic surfactant.
The following ions will not interfere: < 1000 mg/L K^+, Na^+, Cl^-; < 500 mg/L NH_4^+, NO_3^-, SO_4^{2-}; < 200 mg/L Ca^{2+}, Mg^{2+}, Ni^{2+}, Zn^{2+}; < 100 mg/L Fe^{3+}, Al^{3+}; < 50 mg/L Cu^{2+}; < 10 mg/L NO_2^-.

The method cannot be applied for the analysis of sea water.

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 4 and 9)*, close and **shake gently for 2 min *(with a frequency of 2 – 3 times per second)***.
Clean outside of test tube and measure after 2 min *(wait for phase separation)*.

Measurement:
For MACHEREY-NAGEL photometers see manual, test 0-47.

Note:
The calibration curve is calculated as Triton® X-100. For measuring other nonionic surfactants verify calibration curve by measuring standard solutions.

Photometers of other manufacturers:
For other photometers check whether measurement of round glass tubes is possible. Verify calibration curve for each type of instrument by measuring standard solutions.

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