REF 985 074

Test 0-74 11.14

NANOCOLOR® Phenolic index 5

en

Method:
Photometric determination of phenols and other compounds capable of oxidative coupling, which form antipyrine dyes with 4-aminoantipyrine, and, if wanted, subsequent extraction with isobutyl methyl ketone (MIBK)

	Tube test	10 mm cuvette after extraction	
Range:	**0.2–5.0 mg/L** phenolic index	**0.2–5.0 mg/L** phenolic index	
Factor:	**007.1**	**005.3**	**004.8**
Wavelength (HW = 5–12 nm):	**520 nm**	**445 nm**	**470 nm**
Reaction time:	**5 min (300 s)**	**15 min (900 s)**	
Reaction temperature:	**20–25 °C**	**20–25 °C**	

Contents of reagent set:
20 test tubes Phenolic index 5
2 test tubes each with 11 mL Phenolic index 5 R2
1 tube *NANOFIX* Phenolic index 5 R3

Note: The content of the 20 test tubes Phenolic index 5 may be colored lightly yellow, which has no influence to the color reaction.

Hazard warning:
Test tubes contain 4-aminoantipyrine 25–100 %, reagent R2 contains ammonia 1–5 %, reagent R3 contains potassium peroxodisulfate 20–100 %.
H317, H334 May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
P261, P272, P280, P302+352, P304+340, P333+313, P342+311, P363 Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves / eye protection. IF ON SKIN: Wash with plenty of water / … IF INHALED: Remove person to fresh air and keep comfortable for breathing. If skin irritation or rash occurs: Get medical advice / attention. If experiencing respiratory symptoms: Call a POISON CENTER / doctor/ … Wash contaminated clothing before reuse. For further information ask for a safety data sheet.

Interferences:
- oxidizing substances
- reducing substances
- cyanides
- applicable for turbid water **after extraction**
- applicable for sea water **after extraction**

To ensure the measuring results, extraction with isobutyl methyl ketone (MIBK, REF 918 929) is recommended, analogous to DIN 38 409 H16.

Procedure:
Requisite accessories: piston pipette with tips

Open test tube, add
1.0 mL R2 and
4.0 mL test sample *(the pH value of the sample must be between pH 1 and 13)*, close and mix. Add
1 ***NANOFIX*** R3, close and mix.
(Close NANOFIX tube immediately after use.)
Clean outside of test tube and measure after 5 min.

Procedure with extraction:
Requisite accessories: piston pipette with tips, glass cuvettes 10 mm, isobutyl methyl ketone R4 (MIBK, REF 918 929)

Test sample	**Blank value**
Open test tube, add	Open test tube, add
1.0 mL R2 and	**1.0 mL** R2 and
4.0 mL test sample *(the pH value of the sample must be between pH 1 and 13)*, close and mix. Add	**4.0 mL** distilled water, close and mix. Add
1 ***NANOFIX*** R3, close and mix. *(Close NANOFIX tube immediately after use.)* Wait **5 min**. Add	**1** ***NANOFIX*** R3, close and mix. *(Close NANOFIX tube immediately after use.)* Wait **5 min**. Add
4.0 mL R4 (MIBK), close and shake vigorously for **30 s**.	**4.0 mL** R4 (MIBK), close and shake vigorously for **30 s**.

After 15 min open test tubes with test sample and blank value and pipet each about 2 mL of the upper organic phase into 10 mm cuvettes and measure [method 1742].

Measurement:
For *NANOCOLOR*® photometers and PF-12 see manual, test 0-74.

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.

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