

REF 91875

en

Test 1-75 10.17

NANOCOLOR® Phenol

Method:

Photometric determination with diazotized 4-nitroaniline

| | | | |
|----------------------------|---------------|-----------|---------|
| Cuvette: | 50 mm | 20 mm | 10 mm |
| Range (mg/L phenol): | 0.01–1.00 | 0.05–3.50 | 0.1–7.0 |
| Wavelength (HW = 5–12 nm): | 470 nm | | |
| Reaction time: | 5 min (300 s) | | |
| Reaction temperature: | 20–25 °C | | |

Contents of reagent set:

- 2 x 100 mL Phenol R1
- 22 g Phenol R2
- 2 x 100 mL Phenol R3
- 1 measuring spoon 85 mm

Hazard warning:

Reagent R2 contains sodium nitrite 1–5%, reagent R3 contains sodium carbonate 10–20%.

For further information ask for a safety data sheet.

Interferences:

Apart from phenol, most other phenol derivatives are also determined (sometimes with different colorations). 4-Nitrophenol is not detected. In case of water, which is heavily contaminated with organic compounds, the phenols should first be separated by steam distillation.

The method can also be applied for the analysis of sea water after dilution (1+9).

Procedure:

Requisite accessories: volumetric flasks 25 mL, piston pipette with tips

Pour into two separate volumetric flasks 25 mL:

| Test sample | Blank value |
|--|--|
| 1 mL R1 a few crystals of R2, until solution is colourless | 1 mL R1 a few crystals of R2, until solution is colorless |
| 20 mL test sample (<i>the pH value of the sample must be at pH 7</i>), mix | 20 mL distilled water, mix |
| 1 mL R3, mix | 1 mL R3, mix |

Fill up sample and blank value to 25 mL mark with distilled water and mix again. After 5 min pour into cuvettes and measure.

Measurement:

For MACHEREY-NAGEL photometers see manual, test 1-75.

Measurement when samples are colored or turbid:

For all MACHEREY-NAGEL photometers see manual, use key for correction value.

Photometers of other manufacturers:

Verify factor for each type of instrument by measuring standard solutions.

Decreasing volume of analytical preparation:

In order to increase the number of determinations, you can work with volumetric flasks of 10 mL: 0.4 mL R1 + few crystals R2 + 8 mL test sample + 0.4 mL R3, semi-micro cuvette (REF 91950).

Disposal:

The contents of cuvettes and flasks can be washed into drain with plenty of water.