# REF 985 041 Test 0-41 08.16 *NANOCOLOR*<sup>®</sup> Formaldehyde 8

## Method:

In a solution acidified with sulfuric acid, formaldehyde reacts with chromotropic acid to form a violet dye.

Range: Wavelength (HW = 5–12 nm): Reaction time: Reaction temperature: 0.1–8.0 mg/L HCHO 585 nm 5 min 20–25 °C

### Contents of reagent set:

20 test tubes Formaldehyde 8

- 1 bottle with 1 g Formaldehyde 8 R2
- 1 measuring spoon 70 mm
- 1 test tube with blank value "NULL"

## Hazard warning:

Test tubes contain sulfuric acid 80–98 %, blank value "NULL" contains sulfuric acid 51–80 %. H314 Causes severe skin burns and eye damage.

P260, P280, P301+330+331, P303+361+353, P304+340, P305+351+338, P501 Do not breathe vapors. Wear protective gloves/eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Dispose of contents/container to regulated waste treatment. When shaking test tubes use safety bottle (REF 916 37). For further information ask for a safety data sheet.

# Preliminary tests:

If the order of magnitude of the concentration in a sample is not known, a preliminary test with  $QUANTOFIX^{\otimes}$  Formaldehyde (10–200 mg/L HCHO, REF 913 28) rapidly gives this information. From the order of magnitude the required dilution can be calculated and prepared directly.

# Interferences:

The following ions will not interfere: < 10 mg/L Pb<sup>2+</sup>, Fe<sup>3+</sup>, NO<sub>3</sub><sup>-</sup>, S<sup>2-</sup>; < 1 mg/L NO<sub>2</sub><sup>-</sup>; < 0.5 mg/L acetaldehyde.

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

## Procedure:

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Requisite accessories: piston pipette with tips

Open test tube, hold it diagonally and slowly add

- **2.0 mL** test sample (*the pH value of the sample must be between pH 0 and 13*) to contents (*without mixing*) so that two separate layers are formed. Add
- **1 level measuring spoonful** of R2, screw cap securely on to test tube, hold tube by the cap, place tube into the safety bottle and shake gently, until the powder is completely dissolved (*Caution! Test tube becomes hot!*).

Leave hot test tube to stand for 5 min, clean outside and measure.

## Measurement:

For NANOCOLOR® photometers and PF-12 see manual, test 0-41.

### 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.