

REF 918142

Test 1-42

03.22

**NANOCOLOR® Fluoride****Method:**

Photometric determination of fluoride with 1,8-dihydroxy-2-(4-sulfophenylazo)naphthalene-3,6-disulfonic acid (SPADNS)

Cuvette:	10 mm
Range (mg/L F <sup>-</sup> ):	0.05–2.00
Wavelength (HW = 5–12 nm):	585 nm
Reaction time:	1 min (60 s)
Reaction temperature:	20–25 °C

**Contents of reagent set:**

8 x 75 mL Fluoride R1

**Hazard warning:**

Information regarding safety can be found on the box' label and in the safety data sheet. You can download the SDS from [www.mn-net.com/SDS](http://www.mn-net.com/SDS).

**Preliminary tests:**

If the order of magnitude of the concentration in a sample is not known, a preliminary test with Fluoride test paper 2–100 mg/L F<sup>-</sup> (REF 90734) rapidly gives this information. From the order of magnitude the required dilution can be calculated and prepared directly.

**Interferences:**

Only repeatedly and thoroughly rinsed glassware should be used. Sea water and waste water require a distillation.

The following ions will not interfere: < 1000 mg/L Cu<sup>2+</sup>; < 500 mg/L Ca<sup>2+</sup>, Ni<sup>2+</sup>, Zn<sup>2+</sup>; < 200 mg/L Fe<sup>3+</sup>; < 100 mg/L SO<sub>4</sub><sup>2-</sup>; < 50 mg/L Cr(III); < 20 mg/L Si(IV); < 10 mg/L Cr(VI); < 5 mg/L PO<sub>4</sub><sup>3-</sup>, Cl<sub>2</sub>; < 0,1 mg/L Al<sup>3+</sup>.

**Procedure:**

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

Pour into two separate volumetric flasks:

Test sample	Blank value
20 mL test sample (the pH value of the sample must be between pH 7 and 13)	20 mL dist. water
3.0 mL R1, mix	3.0 mL R1, mix

Fill up sample and blank value to 25 mL mark with distilled water and mix again. After 1 min pour into cuvettes and measure.

**Measurement:**

For NANOCOLOR® photometers see manual, test 1-42.

**Photometers of other manufacturers:**

Verify calibration curve for each type of instrument by measuring standard solutions.

**Analytical quality control:**

NANOCONTROL Multistandard Metals 1 (REF 925015)

**Analysis with reduced sample volume:**

In order to increase the number of determinations, you can work with volumetric flasks of 10 mL: 8 mL test sample + 1.2 mL R1.

**Disposal:**

Information regarding disposal can be found in the safety data sheet. You can download the SDS from [www.mn-net.com/SDS](http://www.mn-net.com/SDS).

**Reference:**

Standard methods for the examination of water and wastewater (4500-F<sup>-</sup> D)

CTL SCIENTIFIC SUPPLY CORP. 1016-3 Grand Boulevard, Deer Park, NY 11729

Tel: 631-242-4249

Web: [www.ctlscientific.com](http://www.ctlscientific.com)

Manufacturer: **Macherey-Nagel GmbH & Co. KG**

REV: 2025-09