Nitrate VARIO TT 265
1 - 30 mg/l N
Chromotropic Acid

Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

Instrument Type	Cuvette	λ	Measuring Range
MD 600, MD 610, MD 640, MultiDirect	ø 16 mm	430 nm	1 - 30 mg/l N
SpectroDirect, XD 7000, XD 7500	ø 16 mm	410 nm	1 - 30 mg/l N

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
VARIO Nitra X Reagent, Set	1 Set	535580

Application List

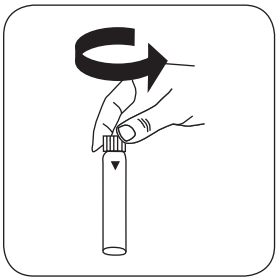
- Waste Water Treatment
- Drinking Water Treatment
- Raw Water Treatment

Notes

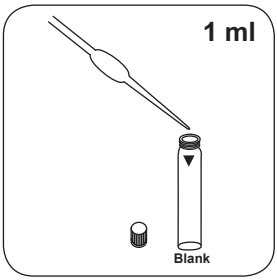
1. A small amount of solid material remains may be undissolved.

Implementation of the provision Nitrate with Vario Vial Test

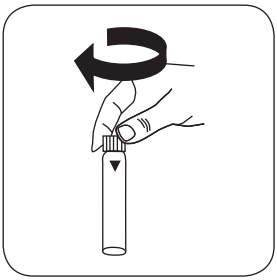
Select the method on the device



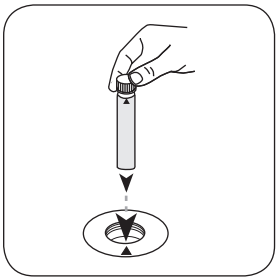
Open **digestion vial (Reagent A)** .



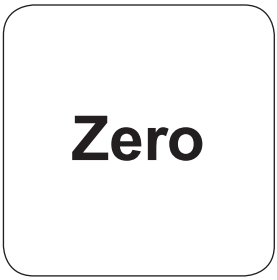
Put **1 ml sample** in the vial.



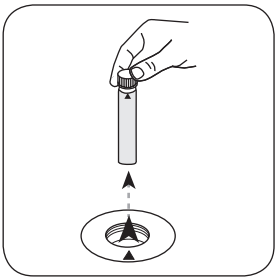
Close vial(s).



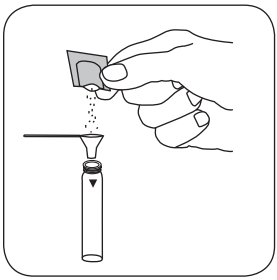
Place **sample vial** in the sample chamber. • Pay attention to the positioning.



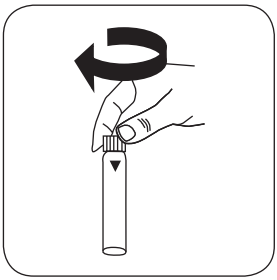
Press the **ZERO** button.



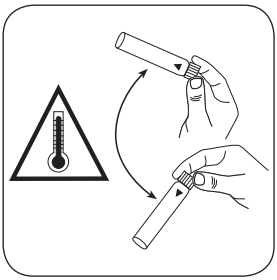
Remove **vial** from the sample chamber.



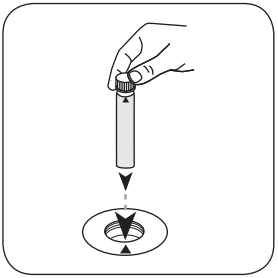
Add **Vario Nitrate Chromotropic powder pack**.



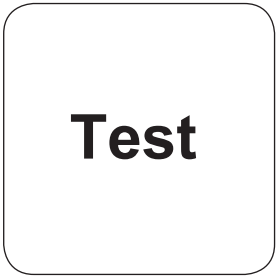
Close vial(s).



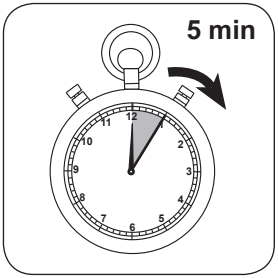
Invert several times to mix the contents (10 x). **Note: Will get hot!**



Place **sample vial** in the sample chamber. • Pay attention to the positioning.



Press the **TEST** (XD: **START**) button.



Wait for **5 minute(s) reaction time**.

Once the reaction period is finished, the measurement takes place automatically.

The result in mg/l Nitrate appears on the display.

Analyses

The following table identifies the output values can be converted into other citation forms.

Unit	Cite form	Scale Factor
mg/l	N	1
mg/l	NO_3	4.43

Chemical Method

Chromotropic Acid

Appendix

Bibliography

P. W. West, G. L. Lyles, A new method for the determination of nitrates, Analytica Chimica Acta, 23, 1960, p. 227-232

[a] determination of free, combined and total | [b] Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | [c] MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | [d] Spectroquant® is a Merck KGaA Trademark | [e] alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | [f] additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | [g] Reagent recovers most insoluble iron oxides without digestion | [h] additionally required for samples with hardness values above 300 mg/l $CaCO_3$ | [i] high range by dilution | [#] including stirring rod, 10 cm