Nitrate HR M268

1.2 - 35 mg/L N

2,6-Dimethylphenole

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
SpectroDirect, XD 7000, XD 7500	ø 16 mm	340 nm	1.2 - 35 mg/L N

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Nitrate-DMP HR / 25	25 pc.	2423370

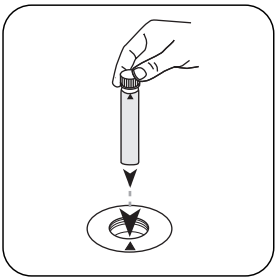
Application List

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

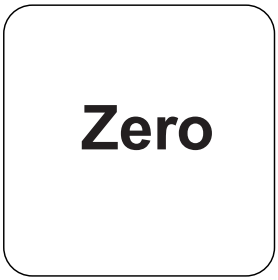
Determination of Nitrate HR with tube test

Select the method on the device.

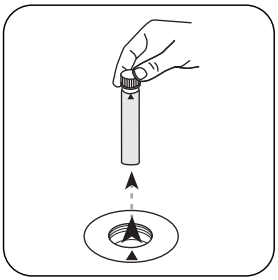
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



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

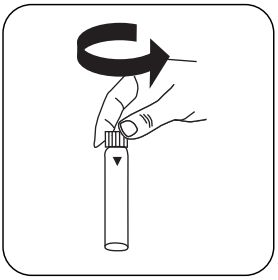


Press the **ZERO** button.

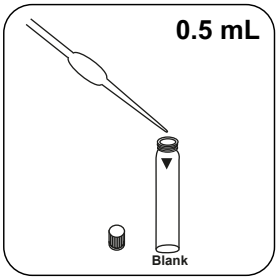


Remove **vial** from the sample chamber.

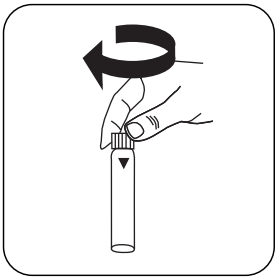
For devices that require **no ZERO measurement** , **start here**.



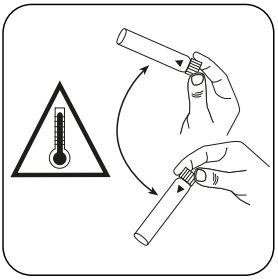
Open a **digestion vial**.



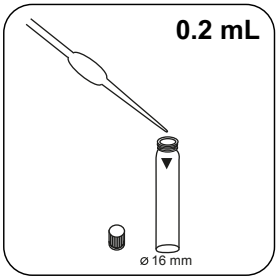
Put **0.5 mL sample** in the vial.



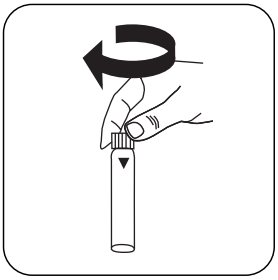
Close vial(s).



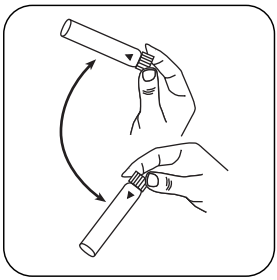
Carefully invert several times to mix the contents.
Note: Will get hot!



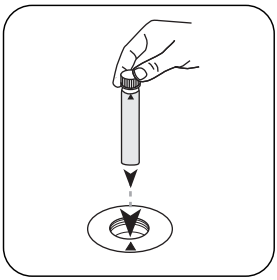
Add **0.2 mL Nitrate-111**.



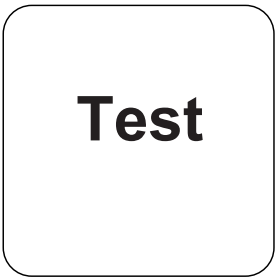
Close vial(s).



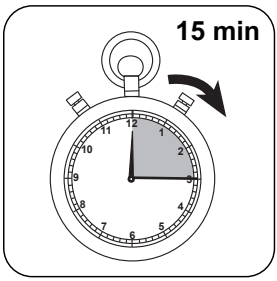
Invert several times to mix the contents.



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



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



Wait for **15 minute(s) reaction time**.

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

The result in mg/L NO_3-N or NO_3 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	4.4268

Chemical Method

2,6-Dimethylphenole

Appendix

Calibration function for 3rd-party photometers

Conc. = a + b•Abs + c•Abs^2 + d•Abs^3 + e•Abs^4 + f•Abs^5

	ø 16 mm
a	$-2.73451 \cdot 10^{-1}$
b	$2.47521 \cdot 10^{+1}$
c	
d	
e	
f	

Interferences

Persistant Interferences

1. Nitrite concentrations above 2 mg/L result in higher results.
2. High levels of oxidisable organic substances (COD) lead to higher results.

Interference	from / [mg/L]
Cr^{6+}	5
Fe^{2+}	50
Sn^{2+}	50
Ca^{2+}	100
Co^{2+}	100
Cu^{2+}	100

Interference	from / [mg/L]
Fe^{3+}	100
Ni^{2+}	100
Pb^{2+}	100
Zn^{2+}	100
Cd^{2+}	200
K^{+}	500
NO_2^{-}	2
Cl^{-}	500

Bibliography

Photometrische Analyseverfahren, Schwedt, Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart 1989

Derived from

ISO 7890-1-2-1986
DIN 38405 D9-2