

Nitrite HR TT

M276

0.3 - 3 mg/L N

Sulfanilic / Naphthylamine

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, SpectroDirect, XD 7000, XD 7500	ø 16 mm	545 nm	0.3 - 3 mg/L N

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Nitrite HR / 25	1 pc.	2423470
Nitrite / 25	1 pc.	2419018

The following accessories are required.

Accessories	Packaging Unit	Part Number
Measuring spoon no. 8, black	1 pc.	424513

Application List

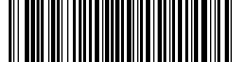
- Galvanization
- Waste Water Treatment
- Drinking Water Treatment
- Raw Water Treatment

Preparation

1. The test sample and the reagents should be at room temperature when undertaking the test.

**Notes**

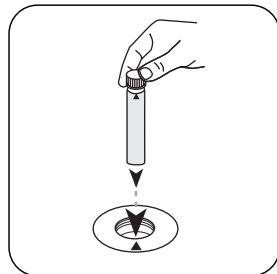
1. The reagents are to be stored in closed containers at a temperature of +4 °C – +8 °C.



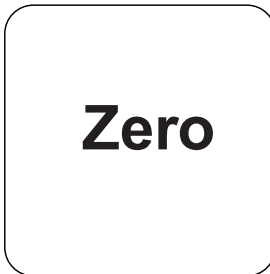
Determination of Nitrite HR with Vial Test

Select the method on the device.

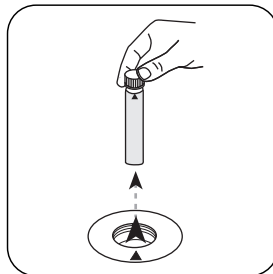
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



Place the supplied Zero vial (red sticker) in the sample chamber. • Pay attention to the positioning.

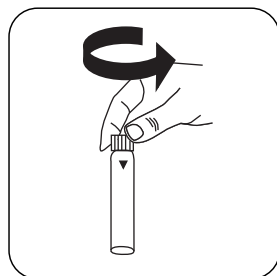


Press the **ZERO** button.

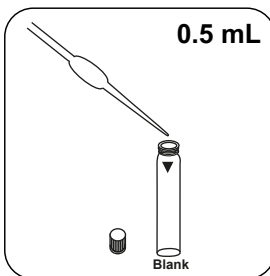


Remove **vial** from the sample chamber.

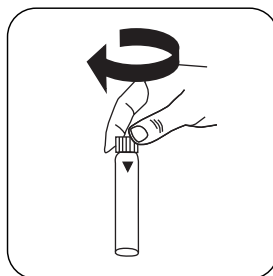
For devices that require **no ZERO measurement** , start here.



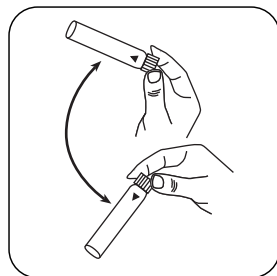
Open **digestion vial** .



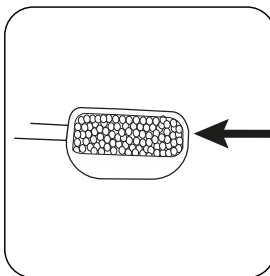
Put **0.5 mL sample** in the vial.



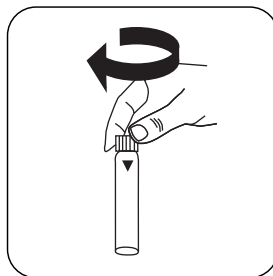
Close vial(s).



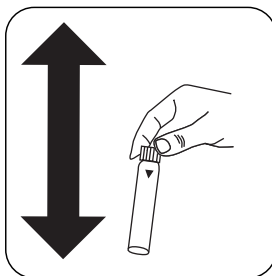
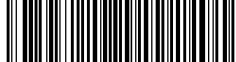
Invert several times to mix the contents.



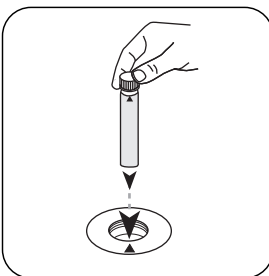
Add a level measuring scoop No. 8 (black) **Nitrite-101** .



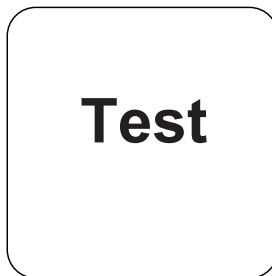
Close vial(s).



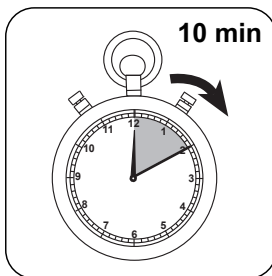
Dissolve the contents by shaking.



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

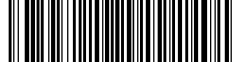


Press the **TEST** (XD: **START**) button.



Wait for **10 minute(s)** **reaction time**.

Once the reaction period is finished, the measurement takes place automatically.
The result in mg/L Nitrite 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 ₂	3.2846

Chemical Method

Sulfanilic / Naphthylamine

Appendix

Calibration function for 3rd-party photometers

$$\text{Conc.} = a + b \cdot \text{Abs} + c \cdot \text{Abs}^2 + d \cdot \text{Abs}^3 + e \cdot \text{Abs}^4 + f \cdot \text{Abs}^5$$

	ø 16 mm
a	$-3.31219 \cdot 10^{-2}$
b	$7.53948 \cdot 10^{-0}$
c	
d	
e	
f	

Interferences

Interference	from / [mg/L]
Fe ³⁺	20
Fe ²⁺	50
Cu ²⁺	500
Cr ³⁺	500
Al ³⁺	1000
Cd ²⁺	1000
total hardness	178,6 mmol/l (1000 °dH)
CrO ₄ ²⁻	0,5
p-PO ₄	10
S ²⁻	50

Interference	from / [mg/L]
SO ₃ ²⁻	50
NO ₃ ⁻	100
HCO ₃ ⁻	143,2 mmol/l (400 °dH)
Hg ²⁺	1000
Mn ²⁺	1000
NH ₄ ⁺	1000
Ni ²⁺	1000
Pb ²⁺	1000
Zn ²⁺	1000
Cl ⁻	1000
CN ⁻	1000
EDTA	1000
o-PO ₄ ³⁻	1000
SO ₄ ²⁻	1000

Method Validation

Limit of Detection	0.05 mg/L
Limit of Quantification	0.15 mg/L
End of Measuring Range	3 mg/L
Sensitivity	8.54 mg/L / Abs
Confidence Intervall	0.61 mg/L
Standard Deviation	0.25 mg/L
Variation Coefficient	15.16 %

Derived from

DIN EN 26777
ISO 6777