

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	$\lambda$	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
ValidCheck Nitrite 1 mg/l NO <sub>2</sub> - N	1 pc.	48221625

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

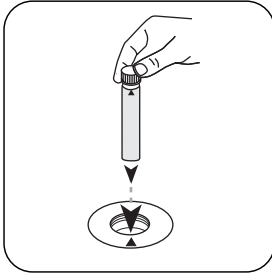
1. The reagents are to be stored in closed containers at a temperature of +4 °C – +8 °C.



## Determination of Nitrite HR with Vial Test

Select the method on the device.

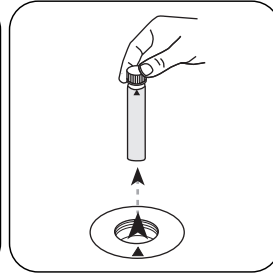
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



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

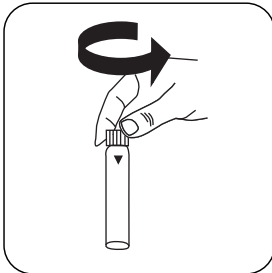


Press the **ZERO** button.

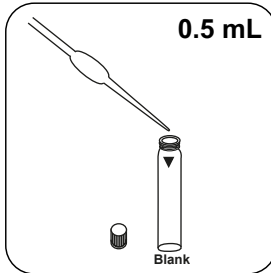


Remove **vial** from the sample chamber.

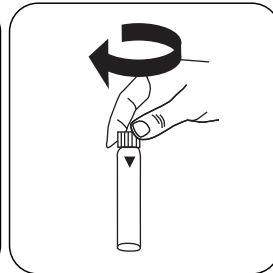
For devices that require **no ZERO measurement** , start here.



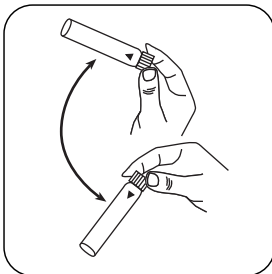
Open **digestion vial** .



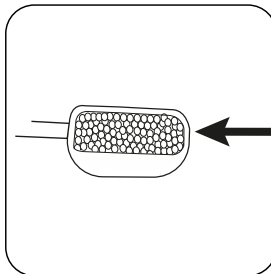
Put **0.5 mL sample** in the vial.



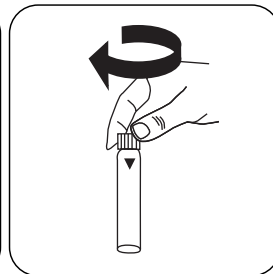
Close vial(s).



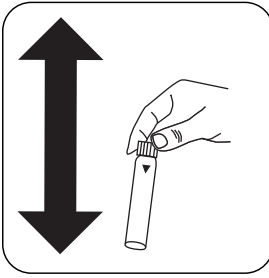
Invert several times to mix the contents.



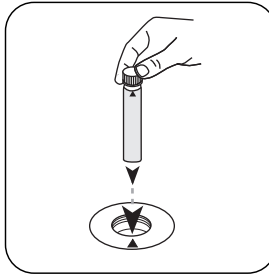
Add a level measuring scoop No. 8 (black) Nitrite-101 .



Close vial(s).



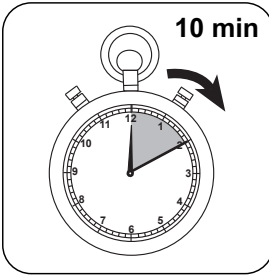
Dissolve the contents by shaking.



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 <sub>2</sub>	3.2846

## Chemical Method

Sulfanilic / Naphthylamine

## Appendix

### Calibration function for 3rd-party photometers

Conc. = a + b•Abs + c•Abs<sup>2</sup> + d•Abs<sup>3</sup> + e•Abs<sup>4</sup> + f•Abs<sup>5</sup>

ø 16 mm

a	-3.31219 • 10 <sup>-2</sup>
b	7.53948 • 10 <sup>+0</sup>
c	
d	
e	
f	

## Interferences

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

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

## Method Validation

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

### Derived from

DIN EN 26777  
ISO 6777