



Nitrite LR TT

M275

0.03 - 0.6 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	0.03 - 0.6 mg/L N

## Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Nitrite LR / 25	1 pc.	2423420
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.

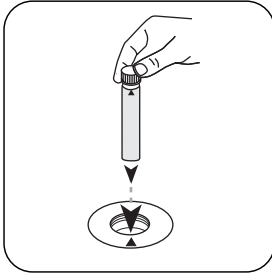




## Determination of Nitrite LR with Vial Test

Select the method on the device.

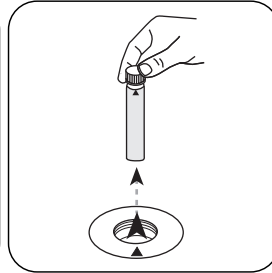
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



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

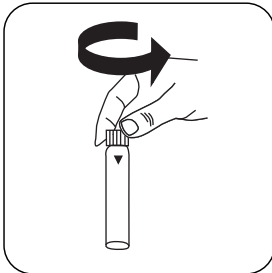


Press the **ZERO** button.

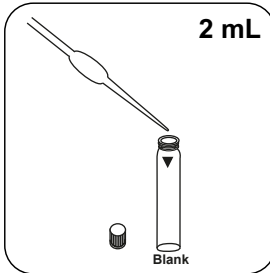


Remove **vial** from the sample chamber.

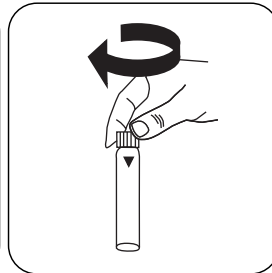
For devices that require **no ZERO measurement** , start here.



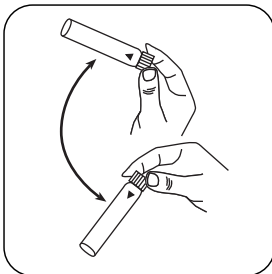
Open **digestion vial** .



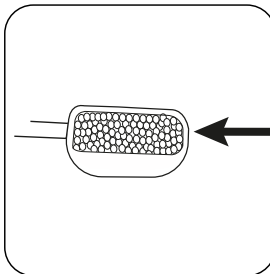
Put **2 mL sample** in the vial.



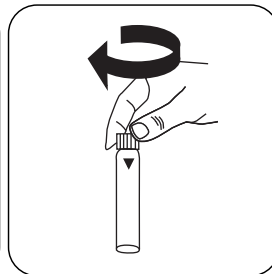
Close vial(s).



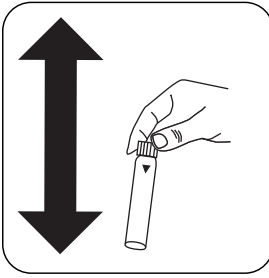
Invert several times to mix the contents.



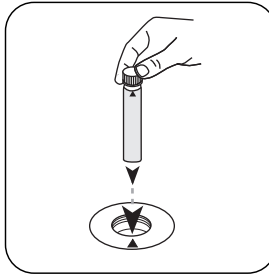
Add a level measuring scoop No. 8 (black) Nitrite-101 .



Close vial(s).



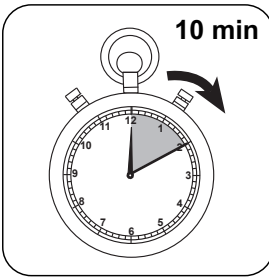
Dissolve the contents by shaking.



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

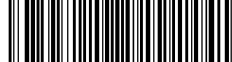


Press the **TEST** (XD: **START**) button.



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

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

ø 16 mm

a	-4.32137 • 10 <sup>-2</sup>
b	2.05096 • 10 <sup>+0</sup>
c	
d	
e	
f	

## Interferences

Interference	from / [mg/L]
Fe <sup>3+</sup>	5
Fe <sup>2+</sup>	10
Cu <sup>2+</sup>	100
Cr <sup>3+</sup>	100
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>	2
S <sup>2-</sup>	10

<b>Interference</b>	<b>from / [mg/L]</b>
SO <sub>3</sub> <sup>2-</sup>	10
NO <sub>3</sub> <sup>-</sup>	25
HCO <sub>3</sub> <sup>-</sup>	35,8 mmol/l (100 °dH)
Hg <sup>2+</sup>	250
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>	250
EDTA	250
o-PO <sub>4</sub> <sup>3-</sup>	1000
SO <sub>4</sub> <sup>2-</sup>	1000

## Method Validation

<b>Limit of Detection</b>	0.01 mg/L
<b>Limit of Quantification</b>	0.04 mg/L
<b>End of Measuring Range</b>	0.6 mg/L
<b>Sensitivity</b>	2.03 mg/L / Abs
<b>Confidence Intervall</b>	0.014 mg/L
<b>Standard Deviation</b>	0.006 mg/L
<b>Variation Coefficient</b>	1.79 %

### Derived from

DIN EN 26777  
ISO 6777