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	λ	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
ValidCheck Nitrite 0.1 mg/l NO_2 - N	1 pc.	48221225
ValidCheck Nitrite 0.4 mg/l NO_2 - N	1 pc.	48221425

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.

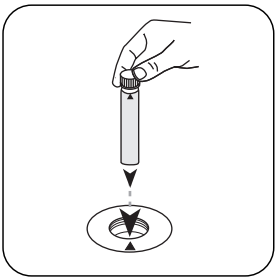
Notes

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

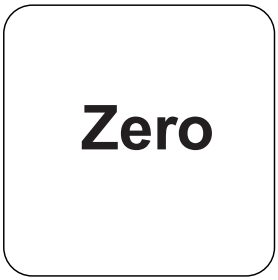
Determination of Nitrite LR with Vial Test

Select the method on the device.

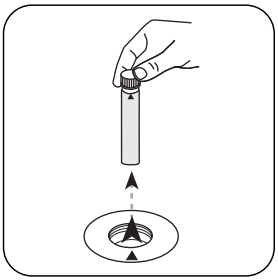
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



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

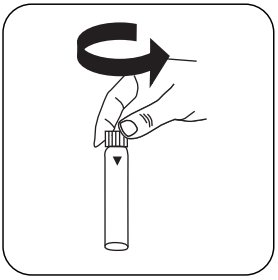


Press the **ZERO** button.

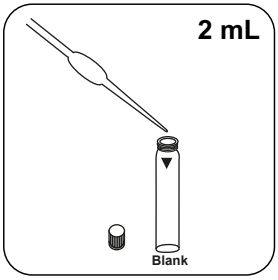


Remove **vial** from the sample chamber.

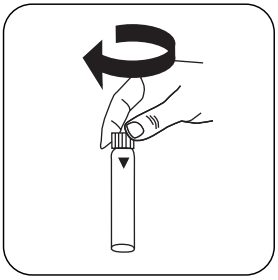
For devices that require **no ZERO measurement** , **start here**.



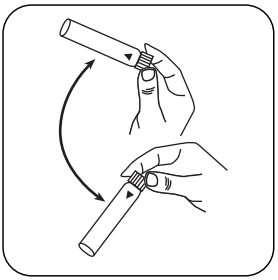
Open **digestion vial** .



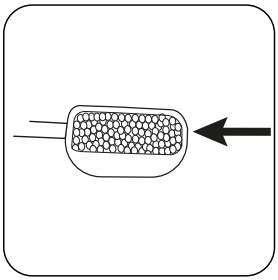
Put **2 mL sample** in the vial.



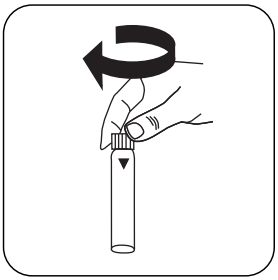
Close vial(s).



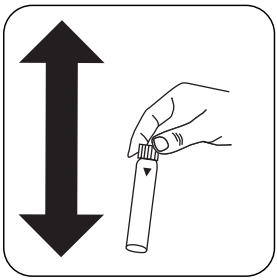
Invert several times to mix the contents.



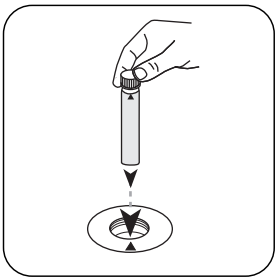
Add **a level measuring scoop No. 8 (black) Nitrite-101** .



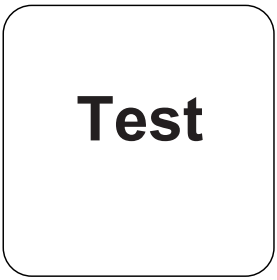
Close vial(s).



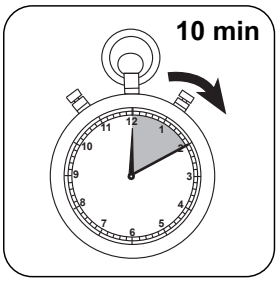
Dissolve the contents by shaking.



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_2	3.2846

Chemical Method

Sulfanilic / Naphthylamine

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	$-4.32137 \cdot 10^{-2}$
b	$2.05096 \cdot 10^{+0}$
c	
d	
e	
f	

Interferences

Interference	from / [mg/L]
Fe^{3+}	5
Fe^{2+}	10
Cu^{2+}	100
Cr^{3+}	100
Al^{3+}	1000
Cd^{2+}	1000
total hardness	178,6 mmol/l (1000 °dH)
CrO_4^{2-}	0,5
p-PO_4	2
S^{2-}	10

Interference	from / [mg/L]
SO_3^{2-}	10
NO_3^-	25
HCO_3^-	35,8 mmol/l (100 °dH)
Hg^{2+}	250
Mn^{2+}	1000
NH_4^+	1000
Ni^{2+}	1000
Pb^{2+}	1000
Zn^{2+}	1000
Cl^-	1000
CN^-	250
EDTA	250
o-PO_4^{3-}	1000
SO_4^{2-}	1000

Method Validation

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

Derived from

DIN EN 26777
ISO 6777