**Sulphite 10 T****368****0.1 - 10 mg/l SO₃****DTNB****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	□ 10 mm	405 nm	0.1 - 10 mg/l SO ₃

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Sulfite LR	Tablet / 100	518020BT

Application List

- Waste Water Treatment
- Galvanization

Notes

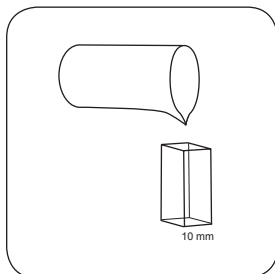
Variations in the length of the vial can extend the measuring range:

- 10 mm vial: 0.1 mg/l - 10 mg/l, solution: 0.01
- 20 mm vial: 0.05 mg/l - 5 mg/l, solution: 0.01
- 50 mm vial: 0.02 mg/l - 2 mg/l, solution: 0.001

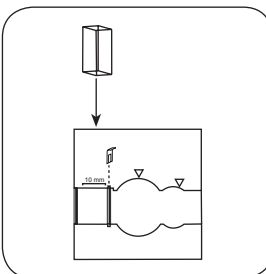
Implementation of the provision Sulphite with Tablet

Select the method on the device

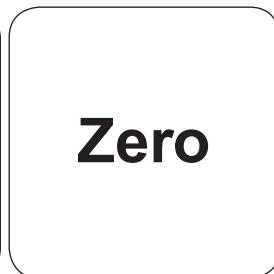
For this method, no ZERO measurements are to be carried out with the following devices: XD 7000, XD 7500



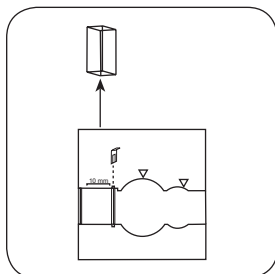
Fill 10 mm vial with sample.



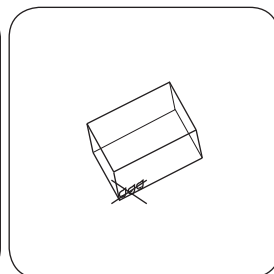
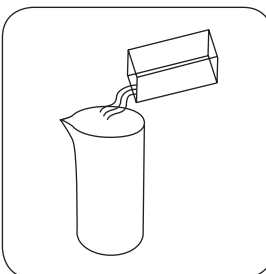
Place sample vial in the sample chamber. • Pay attention to the positioning.



Press the **ZERO** button.

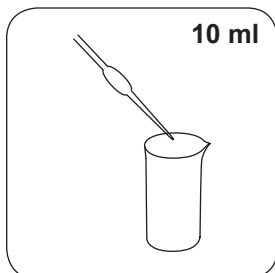


Remove vial from the sample chamber. Empty vial.

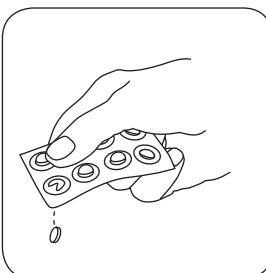


Dry the vial thoroughly.

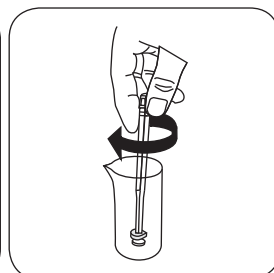
For devices that require no ZERO measurement , start here.



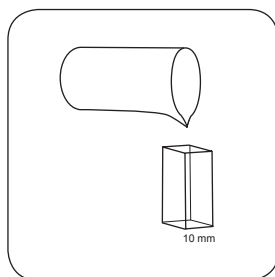
Put 10 ml sample in the sample vessel.



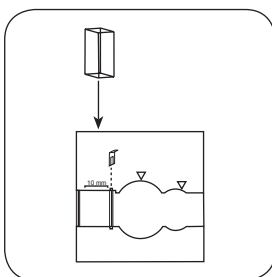
Add **SULFITE LR** tablet.



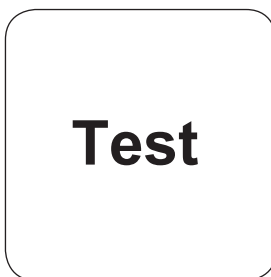
Crush tablet(s) by rotating slightly and dissolve.



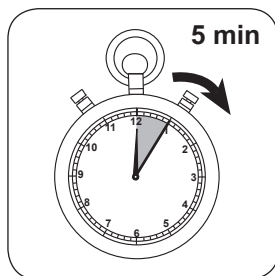
Fill **10 mm vial** with **sample**.



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



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



Wait for **5 minute(s) reaction time**.

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

The result in mg/l Sulphite 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	SO ₃ ²⁻	1
mg/l	Na ₂ SO ₃	1.5743

Chemical Method

DTNB

Appendix

Bibliography

R.E. Humphrey, M.H. Ward, W. Hinze, Spectrophotometric determination of sulphite with 4,4'-dithio-dipyridine and 5,5'-dithiobis(2-nitrobenzoic acid), Anal. Chem., 1970, 42 (7), pp 698–702

^{a)} determination of free, combined and total | ^{b)} Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | ^{c)} MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | ^{d)} Spectroquant® is a Merck KGaA Trademark | ^{e)} alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | ^{f)} additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | ^{g)} Reagent recovers most insoluble iron oxides without digestion | ^{h)} additionally required for samples with hardness values above 300 mg/l CaCO₃ | ⁱ⁾ high range by dilution | ^{*} including stirring rod, 10 cm