Formaldehyde M. TT M177

0.1 - 5 mg/L HCHO

H_2SO_4 / Chromotropic acid

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	ø 16 mm	575 nm	0.1 - 5 mg/L HCHO

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Formaldehyde Spectroquant 1.14500.0001 tube test [d)]	25 pc.	420752

Application List

- Waste Water Treatment

Preparation

1. Before performing the test, you must read through the original instructions and safety advice that is delivered with the test kit (MSDS are available on the home-page of www.merckmillipore.com).

Notes

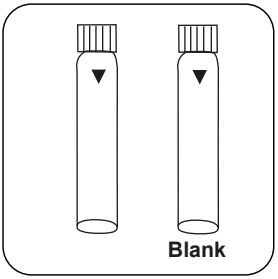
1. This method is adapted from MERCK.
2. Spectroquant® is a registered trademark of the company MERCK KGaA.
3. Appropriate safety precautions and good laboratory technique should be used during the whole procedure.
4. Sample volume should always be metered by using a 2ml volumetric pipette (class A).
5. Because the reaction depends on temperature, the sample temperature must be between 20 °C and 25 °C.
6. The reagents are to be stored in closed containers at a temperature of +15 °C – +25 °C.

Determination of Formaldehyde with MERCK Spectroquant® Test, No. 1.14500.0001

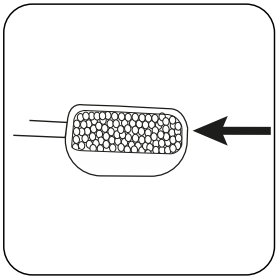
Select the method on the device.

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

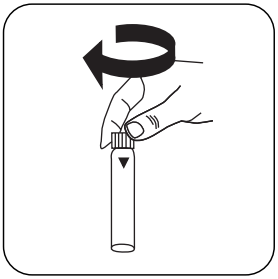
Skip steps with Blank.



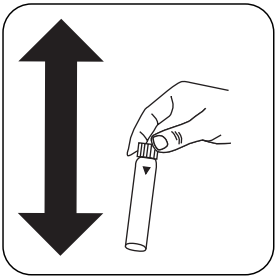
Prepare two **reaction vials**. Mark one as a blank.



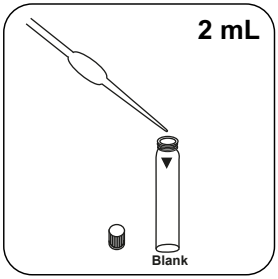
Add exactly **one level microspoon HCHO-1K**.



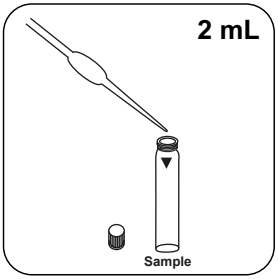
Close vial(s).



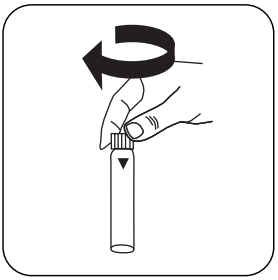
Dissolve the contents by shaking.



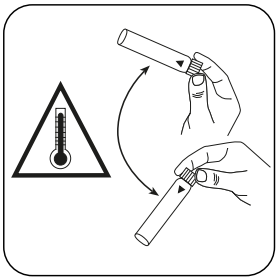
Put **2 mL deionised water** in the blank.



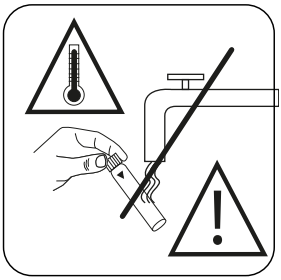
Put **2 mL sample** in the sample vial.



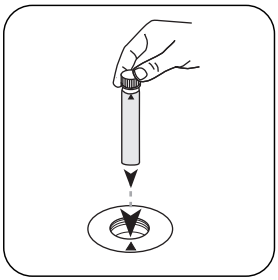
Close vial(s).



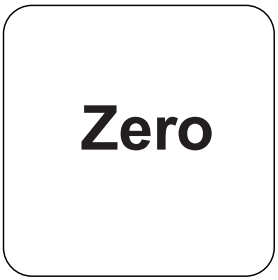
Carefully invert several times to mix the contents. **(NOTE: vial will be hot!)**



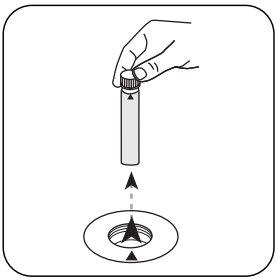
NOTE: Vial will be hot! Do not cool it with water!



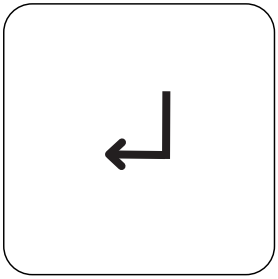
Place **blank** in the sample chamber. • Pay attention to the positioning.



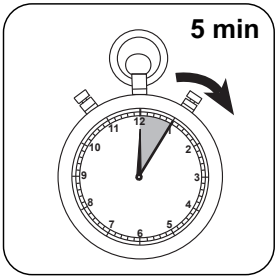
Press the **ZERO** button.



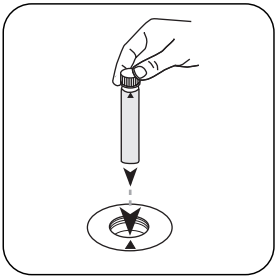
Remove **vial** from the sample chamber.



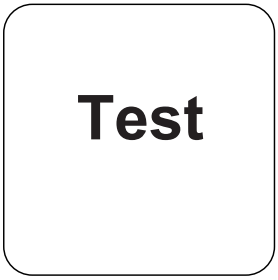
Press the **ENTER** button.



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



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



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

The result in mg/L Formaldehyde appears on the display.

Chemical Method

H_2SO_4 / Chromotropic acid

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	$-6.32712 \cdot 10^{-2}$
b	$3.24743 \cdot 10^{+0}$
c	
d	
e	
f	

Interferences

Bibliography

Kleinert, T. & Srepel, E. Mikrochim Acta (1948) 33: 328. doi:10.1007/BF01414370

[d] Spectroquant® is a Merck KGaA Trademark