

Ammonia LR TT

M65

0.02 - 2.5 mg/L N

Salicylate

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, MultiDirect	ø 16 mm	660 nm	0.02 - 2.5 mg/L N
SpectroDirect, XD 7000, XD 7500	ø 16 mm	655 nm	0.02 - 2.5 mg/L N

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
VARIO Am Vial Test Reagent, Set Low Range F5	1 Set	535600

Application List

- Waste Water Treatment
- Drinking Water Treatment
- Raw Water Treatment

Preparation

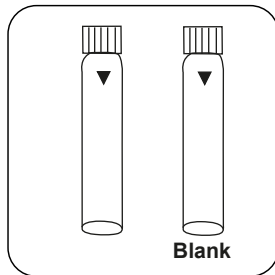
1. Strong alkaline or acidic water samples must be adjusted to approx. pH 7 before analysis (use 1 mol/l Hydrochloric acid or 1 mol/l Sodium hydroxide).



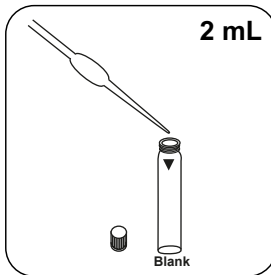


Determination of Ammonium LR with Vario Vial Test

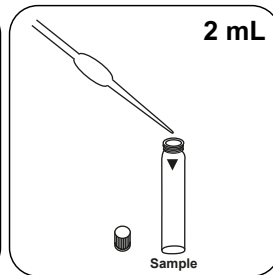
Select the method on the device.



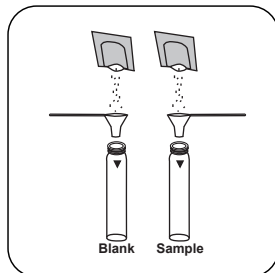
Prepare two **Ammonium Diluent Reagent LR** vials. Mark one as a blank.



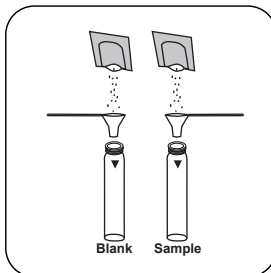
Put **2 mL deionised water** in the blank.



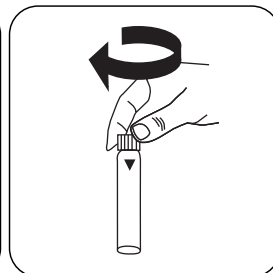
Put **2 mL sample** in the sample vial.



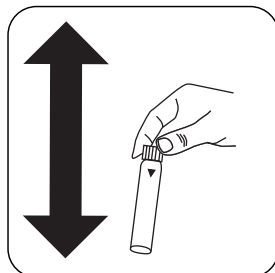
Add a **Vario AMMONIA Salicylate F5 powder pack** in each vial.



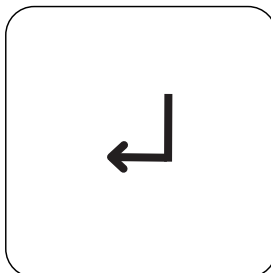
Add a **Vario AMMONIA Cyanurate F5 powder pack** in each vial.



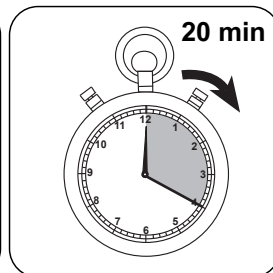
Close vial(s).



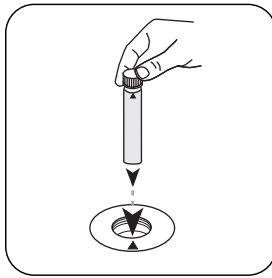
Dissolve the contents by shaking.



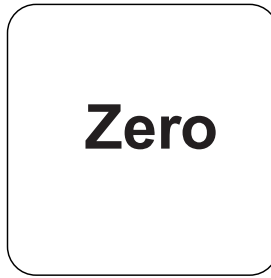
Press the **ENTER** button.



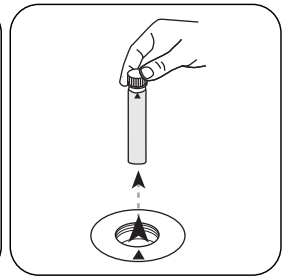
Wait for **20 minute(s) reaction time**.



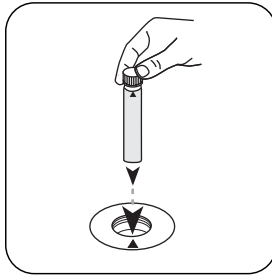
Place **blank** in the sample chamber. • Pay attention to the positioning.



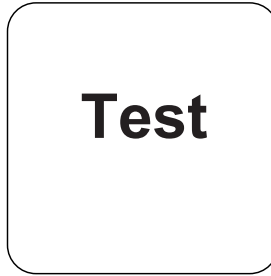
Press the **ZERO** button.



Remove **vial** from the sample chamber.

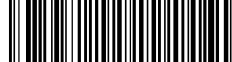


Place **sample vial** in the sample chamber. • Pay attention to the positioning.



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

The result in mg/L Ammonium 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	NH ₄	1.29
mg/l	NH ₃	1.22

Chemical Method

Salicylate

Appendix

Calibration function for 3rd-party photometers

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	$-1.54654 \cdot 10^{-1}$
b	$1.45561 \cdot 10^{-0}$
c	
d	
e	
f	

Interferences

Removeable Interferences

- Iron interferes with the test and can be eliminated as follows: Determine the amount of total iron present. To produce the blank, add an iron standard solution with the same concentration instead of deionised water.



Method Validation

Limit of Detection	0.01 mg/L
Limit of Quantification	0.04 mg/L
End of Measuring Range	2.5 mg/L
Sensitivity	1.49 mg/L / Abs
Confidence Intervall	0.061 mg/L
Standard Deviation	0.025 mg/L
Variation Coefficient	2.02 %

Derived from

DIN 38406-E5-1

ISO 7150-1