Reagents

Development

For more than thirty years, AQUALYTIC® has been manufacturing reagents for water testing and marketing these reagents around the world.

Different forms of reagents are required for different fields of application. It is fair to say that, in terms of quality, tablet reagents are the best form of reagent. Thanks to production techniques of the type used in the pharmaceutical industry and stringent internal quality standards, AQUALYTIC® is able to produce tablet reagents for water testing with a guaranteed shelf life of 5 or 10 years. These tablets are individually sealed in high-grade, polyethylene-coated aluminium foil and represent the reagent form of choice for everyday water testing applications.

Users in different countries traditionally prefer forms of reagent other than tablets. AQUALYTIC® powder reagents are designed to allow fast and easy testing.

Powder reagents are packed in aluminium foil for a wide range of applications and producers represent an alternative reagent form recently introduced by AQUALYTIC®.

Last but not least, liquid reagents are indispensable for many testing tasks. Testing for substances that are hard to detect, for parameters like total nitrogen, or for the aggregate parameter COD, require the use of a wide range of reagents in a form that permits more "aggressive" sample processing. The programme is rounded off by reagent tests and tube tests, making AQUALYTIC® the only reagent producer in the world that offers a complete range of reagent forms.

Tablet reagents

Our test tablets are manufactured in Germany under tightly controlled conditions on the latest machinery.

Maintaining the highest quality standards permits AQUALYTIC® to guarantee our reagent tablets for a minimum of 5 years, and some for as long as 10 years.

We can make this promise because each tablet is hermetically sealed within an individual aluminium foil pocket, protecting against challenging environmental conditions. This packaging keeps each tablet in perfect condition, right up until the time it is needed by the user.

Test tablets remain the most consistent and reliable reagent format available, consistently outperforming other reagent formats, and delivering maximum accuracy for the user.

Now we have improved even further on this highly successful format. To the tight quality control processes, integral to AQUALYTIC® tablet manufacture, and the simple test procedures, we have added new blister packaging.

Our new aluminium foil blister packaging brings added convenience to the tradition of protection achieved in AQUALYTIC® long established tablet production technology.

With the new blister strip, the user just pushes the tablet through the protective foil, straight into the sample. Simple, time-saving and practical.

This type of packaging, long established in pharmaceutical applications, combines all the advantages of protective foil, with convenience for the user.

Each tablet is contained within an individually formed foil cup, lined with the latest aluminium composite material, and guaranteeing product performance.

As a result of improved sealing efficiency, the blister pack has been reduced in size to 91 x 34mm making them even more convenient for storage and shipping.

'BT' is added to the end of the code to identify the new style of packaging. (For example – 4511060BT).

There are no safety risks if the tablets are used in line with the instructions supplied. Safety data sheets are available for all reagents.

Specifications and Certificate of Analysis

To express the high quality standard of AQUALYTIC® tablet reagents, specifications for each type of tablet as well as a "Certificate of Analysis" for each lot is available.

Tube tests

AQUALYTIC® tube tests enable the user to easily perform highly sensitive and precise water testing.

When using tube tests measurement is considerably faster and easier, particularly in the case of standard and serial tests.

The tube tests contain a precisely measured amount of reagent, thereby avoiding the presence of superfluous chemicals and optimising test safety.

Up to six different measuring ranges are available for the various tests.

The tubes are made of special optical glass with a 16 mm in diameter. They are supplied in a storage and dispatch box together with the digestion or auxiliary reagents. This packaging unit contains 24 or 25 reaction vials and up to 2 zero vials for photometer system calibration.

Liquid reagents

As a rule, liquid reagents do not consist of a single preparation but comprise several components that need to be added to the sample in a certain order. As both the size and the number of drops have a decisive effect on the resultant colour complex, the reagents need to be added with a high degree of precision.

The useful life of liquid reagents is reduced by temporary contact with oxygen in the air when the bottle is opened as well as by unsuitable storage environments (presence of sunlight or high temperatures). Provided that the bottles are stored within the temperature range +6°C to +10°C, the AQUALYTIC® DPD and Phenol Red solutions can be used for a period of one year from the production date.

VARIO Powder Packs

The fast and easy use of VARIO Powder Packs has made them extremely popular for water testing applications in many countries throughout the world.

The AQUALYTIC® Powder Pack programme provides more experienced users with a real alternative to existing measurement systems.

The Vario Powder Packs are produced to the same high quality standards that have made AQUALYTIC® tablet reagents so successful for several decades.

Parameters from aluminium and chlorine through to sulphate are just some of the well-known tests that are included in the VARIO Powder Pack range.

Their chemical properties make them compatible to Hach® devices.*

Detailed information see pages 54 - 61

Membrane filter set

For use when preparing samples for photometric measurements

Advantages

- removes turbid materials from samples
- differentiates between dissolved and total substances
- 0.45 µm mesh meets the requirements of the official German unitary procedure for water testing

To prevent the effects of light scatter, it must be ensured that all turbid materials are removed from the sample before photometric measurements are carried out. This can be achieved with the AQUALYTIC® membrane filter set. Where certain methods are employed (e.g., iron, manganese, COD, etc.) a membrane filter set must be used to differentiate samples in terms of dissolved and total substances. The filter mesh size of 0.45 µm is in accordance with the official German unitary procedure for water testing.

Order code: 366150
(covers 25 x 0.45 µm membrane filters and two 20 ml syringes)

* HACH® is a registered trademark of Hach Company, Loveland, Colorado. The use of the HACH® trademark does not imply any affiliation with or approval by Hach Company regarding the formulation, testing or compatibility of these products for use in HACH® brand spectrophotometers or other devices or systems.

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Alkalinity-M	5 - 200 mg/l	610	610	610	610	615	Acid/Indicator [1, 2, 5]	24 mm ø
Alkalinity-M HR	5 - 500 mg/l	-	-	610	610	615	Acid/Indicator [1, 2, 5]	24 mm ø
Alkalinity-P	5 - 300 mg/l	-	-	560	560	551	Acid/Indicator [1, 2, 5]	24 mm ø
Aluminium VARIO	0.01 - 0.25 mg/l	530	-	530	530	535	Eriochrome cyanine R [2]	24 mm ø
Aluminium	0.01 - 0.3 mg/l	530	-	530	530	535	Eriochrome cyanine R [2]	24 mm ø
Ammonia	0.02 - 1 mg/l	610	-	610	610	676	Indophenole blue [2, 3]	24 mm ø
Ammonia VARIO	0.01 - 0.8 mg/l	660	-	660	660	655	Salicylate [2]	24 mm ø
Ammonia VARIO LR	0.02 - 2.5 mg/l	-	-	660	660	655	Salicylate [2]	16 mm ø
Ammonia VARIO HR	1 - 50 mg/l	-	-	660	660	655	Salicylate [2]	16 mm ø
Arsenic (III, IV)	0.02 - 0.6 mg/l	-	-	-	-	507	Silver diethyldithiocarbamate[1]	20 mm ❑
Biguanide (see PHMB)								
Boron	0.1 - 2 mg/l	-	-	430	430	450	Azomethine [3]	24 mm ø

Material safety data sheets: www.aqualytic.de

For other reagent quantities please see our current price list.

Legend

[1] Deutsche Einheitsverfahren zur Wasser-, Abwasser- und Schlamm- Untersuchung
[2] Standard Methods for the Examination of Water and Wastewater, 18th Edition; 1992
[3] Photometrische Analysenverfahren, Schwedt, Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart; 1989
[4] Photometrische Analyse, Lange/Vejdelek, Verlag Chemie; 1980
[5] Colorimetric Chemical Analytical Methods, 9th Edition, Lovibond®

Display	Reagent	Form of reagent/Quantity	Order code
$CaCO_3$	ALKA-M-PHOTOMETER	Tablet / 100	4513210BT
$CaCO_3$	ALKA-M-HR-PHOTOMETER	Tablet / 100	4513240BT
$CaCO_3$	ALKA-P-PHOTOMETER	Tablet / 100	4513230BT
Al	VARIO Aluminum ECR/F20 VARIO Aluminum Hexamine/F20 VARIO Aluminum ECR Masking Reagent	Powder Pack / 100 Powder Pack / 100 Liquid reagent / 25 ml **Set**	 4535000
Al	ALUMINIUM No. 1 ALUMINIUM No. 2 Combi pack# ALUMINIUM No.1 / No.2 Combi pack# ALUMINIUM No.1 / No.2	Tablet / 100 Tablet / 100 each 100 each 250	4515460BT 4515470BT 4517601BT 4517602BT
N	AMMONIA No. 1 AMMONIA No. 2 Combi pack# AMMONIA No.1 / No.2 Combi pack# AMMONIA No.1 / No.2 Ammonia conditioning powder (for seawater)	Tablet / 100 Tablet / 100 each 100 each 250 Powder / 15 g / 50 Tests	4512580BT 4512590BT 4517611BT 4517612BT 460170
N	VARIO Ammonia Salicylate F10 VARIO Ammonia Cyanurate F10	Powder Pack / 100 Powder Pack / 100 **Set**	 4535500
N	VARIO Ammonia Salicylate F5 VARIO Ammonia Cyanurate F5 VARIO Am Diluent Reagent LR VARIO Deionised Water (for Zero)	Powder Pack / 50 Powder Pack / 50 Reaction tube / 50 Bottle, 100 ml **Set** (Tube test)	 4535600
N	VARIO Ammonia Salicylate F5 VARIO Ammonia Cyanurate F5 VARIO Am Diluent Reagent HR VARIO Deionised Water (for Zero)	Powder Pack / 50 Powder Pack / 50 Reaction tube / 50 Bottle, 100 ml **Set** (Tube test)	 4535650
As	for chemicals see manual, reagents at specialized chemistry dealer		
B	BORON No. 1 BORON No. 2 Combi pack# BORON No.1 / No.2 Combi pack# BORON No.1 / No.2	Tablet / 100 Tablet / 100 each 100 each 200	4515790 4515800BT 4517681BT 4517682BT

[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] AL450: 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 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 $CaCO_3$
[i] high range by dilution
[j] Vacu-vials® is a Chemetrics Trademark
including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Bromine	0.05 - 13 mg/l 0.05 - 1 mg/l 0.1 - 3 mg/l 0.05 - 6.5 mg/l	530 - - -	530 - - -	530 - - -	530 - - -	- 510 510 510	DPD [5]	24 mm ø 50 mm □ 10 mm □ 24 mm ø
Bromine VARIO	0.05 - 4.5 mg/l	-	-	530	530	-	DPD [1, 2]	24 mm ø
Cadmium (Cd^{2+})	0.025 - 0.75 mg/l	-	-	-	-	525	Cadion	16 mm ø
Chloride	0.5 - 25 mg/l 5 - 250 mg/l [i)]	530 530	- -	530 -	530 -	450 -	Silver nitrate/turbidity	24 mm ø
Chloride	5 - 60 mg/l	-	-	-	-	455	Iron (III)-thiocyanate [4]	24 mm ø
Chloride	0.5 - 20 mg/l	430	-	430	-	-	Mercury thiocyanate / Iron nitrate	24 mm ø
Chlorine [a)]	0.01 - 6 mg/l 0.02 - 0.5 mg/l 0.1 - 6 mg/l 0.02 - 3 mg/l	530 - - -	530 - - -	530 - - -	530 - - -	- 510 510 510	DPD [1, 2]	24 mm ø 50 mm □ 10 mm □ 24 mm ø
Chlorine HR (DPD) [a)]	0.1 - 10 mg/l	530	530	530	530	530	DPD [1, 2]	24 mm ø
Chlorine [a)]	0.02 - 4 mg/l 0.02 - 3 mg/l	530	530	530	530	- 510	DPD [1, 2]	24 mm ø 24 mm ø
Chlorine VARIO [a)]	0.02 - 2 mg/l 0.1 - 8 mg/l	530 530	- -	530 530	530 -	510 -	DPD [1, 2]	24 mm ø 24 mm ø multy via
Chlorine HR (KI)	5 - 200 mg/l	530	-	530	530	470	KI / Acid [5]	16 mm ø

Material safety data sheets: www.aqualytic.de

For other reagent quantities please see our current price list.

Legend

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[2] Standard Methods for the Examination of Water and Wastewater, 18th Edition; 1992
[3] Photometrische Analysenverfahren, Schwedt, Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart; 1989
[4] Photometrische Analyse, Lange/Vejdelek, Verlag Chemie; 1980
[5] Colorimetric Chemical Analytical Methods, 9th Edition, Lovibond®

Display	Reagent	Form of reagent/Quantity	Order code
Br	DPD No. 1	Tablet / 100	511050BT
	DPD No. 3	Tablet / 100	511080BT
	Combi pack# DPD No.1 / No.3	each 100	517711BT
	Combi pack# DPD No.1 / No.3	each 250	517712BT
	DPD No. 1 HIGH CALCIUM [e]	Tablet / 100	515740BT
	DPD No. 3 HIGH CALCIUM [e]	Tablet / 100	515730BT
	Combi pack# DPD No.1 / No.3 HIGH CALCIUM [e]	each 100	517781BT
	Combi pack# DPD No.1 / No.3 HIGH CALCIUM [e]	each 250	517 82BT
	DPD Nitrite	Tablet / 100	502691
	GLYCINE [f]	Tablet / 100	512170BT
	Combi pack# DPD No.1 / GLYCINE	each 100	517731BT
	Combi pack# DPD No.1 / GLYCINE	each 250	517732BT
Br	VARIO Chlorine TOTAL-DPD/F10	Powder Pack / 100	530120
Cd	Spectroquant® 1.14834.0001[d]	Tube test / 25	420750
Cl	CHLORIDE T1	Tablet / 100	515910BT
	CHLORIDE T2	Tablet / 100	515920BT
	Combi pack# CHLORIDE T1 / T2	each 100	517741BT
	Combi pack# CHLORIDE T1 / T2	each 250	517742BT
Cl	Chlorid-51 / Chlorid-52	Reagent test (Liquid reagent) approx. 50-75 Tests	419031
Cl^-	KS251 (Chloride Reagent A)	Liquid reagent / 65 ml	56L025165
	KS253 (Chloride Reagent B)	Liquid reagent / 65 ml	56L025365
		Set	56R018490
Cl_2	DPD No. 1	Tablet / 100	511050BT
	DPD No. 3	Tablet / 100	511080BT
	Combi pack# DPD No.1 / No.3	each 100	517711BT
	Combi pack# DPD No.1 / No.3	each 250	517712BT
	DPD No. 1 HIGH CALCIUM [e]	Tablet / 100	515740BT
	DPD No. 3 HIGH CALCIUM [e]	Tablet / 100	515730BT
	Combi pack# DPD No.1 / No.3 HIGH CALCIUM [e]	each 100	517781BT
	Combi pack# DPD No.1 / No.3 HIGH CALCIUM [e]	each 250	517782BT
Cl_2	DPD No. 1 HR	Tablet / 100	511500BT
	DPD No. 3 HR	Tablet / 100	511590BT
Cl_2	DPD 1 Buffer solution	Liquid reagent / 15 ml	471010
	DPD 1 Reagent solution	Liquid reagent / 15 ml	471020
	DPD 3 Solution	Liquid reagent / 15 ml	471030
		Set	471056
Cl_2	VARIO Chlorine FREE-DPD/F10	Powder Pack / 100	530100
	VARIO Chlorine TOTAL-DPD/F10	Powder Pack / 100	530120
Cl_2	ACIDIFYING GP	Tablet / 100	515480
	CHLORINE HR (KI)	Tablet / 100	513000
	Combi pack CHLORINE HR (KI)/ACIDIFYING GP	each 100	517721
	Combi pack# CHLORINE HR (KI)/ACIDIFYING GP	each 250	517722

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[b] Reactor is necessary for COD (150°C), TOC (120°C) and total -chromium, - phosphate, -nitrogen, (100°C)
[c] AL450: 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 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 $CaCO_3$
[i] high range by dilution
[j] Vacu-vials® is a Chemetrics Trademark
including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Chlorine dioxide	0.02 - 11 mg/l 0.05 - 1 mg/l 0.05 - 2.5 mg/l	530 - -	530 - -	530 - -	530 - -	- 510 510	DPD/Glycine [1,2]	24 mm ø 50 mm □ 24 mm ø
Chlorine dioxide VARIO	0.04 - 3.8 mg/l	530	-	530	530	-	DPD [1, 2]	24 mm ø
Chromium (III, VI) [b)]	0.005 - 0.5 mg/l 0.02 - 2 mg/l	- -	- -	- 530	- -	542 542	1,5-Diphenylcarbozide[1, 2]	50 mm ❑ 16 mm ø
COD LR (ISO 15705:2002)[b)]	0 - 150 mg/l	430	430	430	430	420	Dichromate / H_2SO_4 [1, 2]	16 mm ø
COD MR (ISO 15705:2002)[b)]	0 - 1500 mg/l	610	610	610	610	620	Dichromate / H_2SO_4 [1, 2]	16 mm ø
COD HR [b)]	0 - 15000 mg/l	610	610	610	610	620	Dichromate / H_2SO_4 [1, 2]	16 mm ø
Copper [a)]	0.05 - 5 mg/l 0.05 - 1 mg/l 0.3 - 5 mg/l 0.5 - 5 mg/l	560 - 530 -	560 - - -	560 - - -	560 - - -	- 559 - 559	Biquinoline [4]	24 mm ø 50 mm o 24 mm ø 24 mm ø
Copper free	0.02 - 1 mg/l	-	-	-	-	-	Zincon [3] / EDTA	24 mm ø
Copper [a)]	0.05 - 4 mg/l	-	-	560	-	-	Bicinchoninate	24 mm ø
Copper, free VARIO	0.05 - 5 mg/l	560	-	560	560	560	Bicinchoninate	24 mm ø
Cyanide	0.01 - 0.5 mg/l 0.005 - 0.2 mg/l	- -	- -	580 -	580 -	585 585	Pyridine-barbituric acid [1]	24 mm ø 50 mm ❑
Cyanuric acid	0 - 160 mg/l	530	530	530	530	530	Melamine	24 mm ø
DEHA	20 - 500 µg/l	-	-	560	560	562	PPST [3]	24 mm ø

Material safety data sheets: www.aqualytic.de

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Legend

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[3] Photometrische Analysenverfahren, Schwedt, Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart; 1989
[4] Photometrische Analyse, Lange/Vejdelek, Verlag Chemie; 1980
[5] Colorimetric Chemical Analytical Methods, 9th Edition, Lovibond®

Display	Reagent	Form of reagent/Quantity	Order code
ClO_2	DPD No. 1	Tablet / 100	4511050BT
	DPD No. 3	Tablet / 100	4511080BT
	Combi pack# DPD No.1 / No.3	each 100	4517711BT
	Combi pack# DPD No.1 / No.3	each 250	4517712BT
	GLYCINE [f]	Tablet / 100	4512170BT
	Combi pack# DPD No.1 / GLYCINE	each 100	4517731BT
	Combi pack# DPD No.1 / GLYCINE	each 250	4517732BT
	DPD No. 1 HIGH CALCIUM [e]	Tablet / 100	4515740BT
	DPD No. 3 HIGH CALCIUM [e]	Tablet / 100	4515730BT
	Combi pack# DPD No.1 / No.3 HIGH CALCIUM [e]	each 100	4517781BT
	Combi pack# DPD No.1 / No.3 HIGH CALCIUM [e]	each 250	4517782BT
ClO_2	VARIO Chlorine FREE-DPD/F10	Powder Pack / 100	4530100
	GLYCINE [f]	Tablet / 100	4512170BT
Cr^{6+} 24 mm ø	PERSULF. RTG FOR CR	Powder Pack / 100	4537300
	Chromium Hexavalent	Powder Pack /100	4537310
O_2	Reaction tube 0-150 mg/l	Tube test / 25	420720
	Reaction tube 0-150 mg/l, mercury free	Tube test / 25	420710
O_2	Reaction tube 0-1500 mg/l	Tube test / 25	420721
	Reaction tube 0-1500 mg/l, mercury free	Tube test / 25	420711
O_2	Reaction tube 0-15000 mg/l	Tube test / 25	420722
	Reaction tube 0-15000 mg/l, mercury free	Tube test / 25	420712
Cu	COPPER No. 1	Tablet / 100	4513550BT
	COPPER No. 2	Tablet / 100	4513560BT
	Combi pack# COPPER No.1 / No.2	each 100	4517691BT
	Combi pack# COPPER No.1 / No.2	each 250	4517692BT
Cu	COPPER/ZINC LR	Tablet / 100	4512620
	EDTA	Tablet / 100	4512390
	DECHLOR (in case of high levels of residual chlorine)	Tablet / 100	4512350
Cu	KS240 (Coppercol Reagent 1)	Liquid reagent / 30 ml	56L024030
	KS241 (Coppercol Reagent 2)	Liquid reagent / 30 ml	56L024130
	KS242 (Coppercol Reagent 3)	Powder / 10 g	56L024210
	COPPER No.2	Tablet / 100	4513560BT
		Set	56R023355
Cu	Vario Cu 1 F10	Powder Pack / 100	4530300
CN	Cyanid-11 / Cyanid-12 / Cyanid-13	Reagent test (Powder, Liquid reagent) / 200 Tests	418875
Cys	CyA-TEST	Tablet / 100	4511370BT
DEHA	DEHA Solution	Liquid reagent / 100 ml	461181
	DEHA	Tablet / 100	4513220

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[e] alternative reagent, used instead of DPD No.1 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 $CaCO_3$
[i] high range by dilution
[j] Vacu-vials® is a Chemetrics Trademark
[#] including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
DEHA VARIO	20 - 500 µg/l	560	-	560	560	562	PPST [3]	24 mm ø
Fluoride	0.05 - 2 mg/l 0.05 - 1.5 mg/l	580 -	- -	580 -	580 -	- 580	SPADNS [2]	24 mm ø
Formaldehyde	1 - 5 mg/l 0.02 - 1 mg/l	- -	- -	- -	- -	585 585	H_2SO_4/ Chromotropic acid	10 mm ❑ 50 mm ❑
Formaldehyde	0.1 - 5 mg/l	-	-	-	-	575	H_2SO_4/ Chromotropic acid	16 mm ø
Hardness, calcium	50 - 900 mg/l	-	-	560	560	-	Murexide [4]	24 mm ø
Hardness, calcium	0 - 500 mg/l	560	560	560	560	-	Murexide [4]	24 mm ø
Hardness, total	2 - 50 mg/l 20 - 500 mg/l [i)]	560 560	- -	560 560	560 560	571 571	Metallphthalein [3]	24 mm ø
Hazen (Pt-Co-units ; APHA)	0 - 500 mg/l 0 - 500 mg/l	430 -	- -	430 -	430 -	- 455	Direct reading [1, 2]	24 mm ø 50 mm ❑
Hydrazine	0.05 - 0.5 mg/l	430	-	430	430	455	Dimethylamino-benzaldehyde [3]	24 mm ø
Hydrazine	0.01 - 0.6 mg/l 0.005 - 0.6 mg/l	- -	- -	430 -	430 -	- 455	Dimethylamino-benzaldehyde [3]	24 mm ø
Hydrazine [c)]	0.01 - 0.7 mg/l	-	-	430	430	-	PDMAB	24 mm ø
Hydrogen peroxide	0.03 - 3 mg/l 0.01 - 0.5 mg/l 0.03 - 1.5 mg/l	- - -	- - -	530 - -	530 - -	- 510 510	DPD/Catalyst [5]	24 mm ø 50 mm ❑ 24 mm ø
Hydrogen peroxide	1 - 50 mg/l 40 - 500 mg/l [i)]	- -	430 530	430 530	430 530	- -	Peroxotitanium acid	24 mm ø
Iodine	0.05 - 3.6 mg/l	-	-	530	530	510	DPD [5]	24 mm ø
Iron (II, III) soluble	0.02 - 1 mg/l 0.01 - 0.5 mg/l 0.1 - 1 mg/l	560 - -	560 - -	560 - -	560 - -	- 562 562	PPST [3]	24 mm ø 50 mm ❑ 10 mm ❑

Material safety data sheets: www.aqualytic.de

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[4] Photometrische Analyse, Lange/Vejdelek, Verlag Chemie; 1980
[5] Colorimetric Chemical Analytical Methods, 9th Edition, Lovibond®

Display	Reagent	Form of reagent/Quantity	Order code
DEHA	VARIO OXYSCAV 1 RGT VARIO DEHA 2 RGT	Powder Pack / 200 Solution / 100 ml **Set**	 4536000
F	SPADNS Reagent Fluoride Standard Reagent solution and standard required	Liquid reagent / 250 ml Liquid reagent / 500 ml Solution / 30 ml	4467481 4467482 205630
HCHO	Spectroquant® 1.14678.0001[d)]	Reagent test / ca. 50-75 Tests	420751
HCHO	Spectroquant® 1.14500.0001[d)]	Tube test / 25	420752
$CaCO_3$	CALCHECK	Tablet / 100	4515650BT
$CaCO_3$	Combi pack# CALCIO H No.1 / No.2 Combi pack# CALCIO H No.1 / No.2	each 100 each 250	4517761BT 4517762BT
$CaCO_3$	HARDCHECK P	Tablet / 100 Tablet / 250	4515660BT 4515661BT
Pt-Co-units	no reagents required	-	-
N_2H_4	Hydrazine Test Powder Spoon	Powder / 30 g	462910 384930
N_2H_4	VARIO Hydra 2 Rgt Solution	Solution / 100 ml	4531200
N_2H_4	Vacu-vial® [j)]	Test Kit / 30 Adapter for Vacu-vials® [j)]	380470 192075
H_2O_2	HYDROGENPEROXIDE LR	Tablet / 100	4512380BT
H_2O_2	H_2O_2 reagent solution	Liquid reagent / 15 ml	424991
I	DPD No. 1	Tablet / 100	4511060BT
Fe	IRON LR (Fe^{2+} and Fe^{3+}) IRON (II) LR (Fe^{2+})	Tablet / 100 Tablet / 100	4515370BT 4515420BT

[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)] AL450: 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 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 $CaCO_3$
[i)] high range by dilution
[j)] Vacu-vials® is a Chemetrics Trademark
[#] including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Iron VARIO (II, III) soluble	0.02 - 3 mg/l 0.1 - 3 mg/l	530 -	- -	530 -	530 -	- 510	1,10-Phenanthroline [2]	24 mm ø
Iron VARIO, total [g)]	0.02 - 1.8 mg/l 0.1 - 1.8 mg/l	580 -	- -	580 -	580 -	- 590	TPTZ [g)]	24 mm ø
Iron LR	0.03 - 2.0 mg/l 0.03 - 2.0 mg/l	560 530	-	560	-	-	Ferrozine / Thioglycolate	24 mm ø
Iron LR 2	0.03 - 2.0 mg/l	-	-	560	-	-	Ferrozine / Thioglycolate	24 mm ø
Iron HR	0.1 - 10 mg/l	-	-	560	-	-	Thioglycolate	24 mm ø
Lead (Pb^{2+})	0.1 - 5 mg/l	-	-	-	-	520	4-(2-Pyridylazo)-resorcin	10 mm ❑
Lead (Pb^{2+})	0.1 - 5 mg/l	-	-	-	-	515	4-(2-Pyridylazo)-resorcin	16 mm ø
Manganese	0.2 - 4 mg/l	530	-	530	530	450	Formaldoxime	24 mm ø
Manganese VARIO LR	0.01 - 0.7 mg/l	560	-	560	560	558	PAN	24 mm ø
Manganese VARIO HR	0.1 - 18 mg/l	530	-	530	530	525	Periodate oxidation [2]	24 mm ø
Manganese	0.05 - 5 mg/l	-	-	430	-	-	Formaldoxime	24 mm ø
Molybdate / Molybdenum	1 - 50 mg/l 1 - 30 mg/l 0.6 - 30 mg/l	- - 430	- - -	430 - -	430 - -	- 366 -	Thioglycolate [4]	24 mm ø

Material safety data sheets: www.aqualytic.de

For other reagent quantities please see our current price list.

Legend

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[2] Standard Methods for the Examination of Water and Wastewater, 18th Edition; 1992
[3] Photometrische Analysenverfahren, Schwedt, Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart; 1989
[4] Photometrische Analyse, Lange/Vejdelek, Verlag Chemie; 1980
[5] Colorimetric Chemical Analytical Methods, 9th Edition, Lovibond®

Display	Reagent	Form of reagent/Quantity	Order code
Fe	VARIO Ferro F10	Powder Pack / 100	4530560
Fe	VARIO TPTZ F10	Powder Pack / 100	4530550
Fe	KS61 (Ferrozine / Thioglycolate)	Liquid reagent / 65 ml	56L006165
	KS63 (Thioglycolate)	Liquid reagent / 65 ml	56L006365
		Set	56R018990
	KT274 (Ammonia / Persulphate)	Tablet / 50	56T027450
	KT135 (Phenolphthalein Indicator)	Liquid reagent / 65 ml	56L013565
	KS144 (Calcium Hardness Buffer)		56L014465
Fe	KS60 FE1 (Acetate Buffer)	Liquid reagent / 65 ml	56L006065
	KS63 FE6 (Thioglycolate Reagent)	Liquid reagent / 65 ml	56L006365
	KS65 FE7 (Ferrozine Reagent)	Liquid reagent / 65 ml	56L006565
		Set	56R023490
Fe	KS160 TH2 FE8 (Total Hardness Buffer)	Liquid reagent / 65 ml	56L016065
	KS63 FE6 (Thioglycolate Reagent)	Liquid reagent / 65 ml	56L006365
		Set	56R023590
Pb	Spectroquant® 1.09717.0001[d]	Reagent test / 50 Tests	420753
Pb	Spectroquant® 1.14833.0001[d]	Tube test / 25	420754
Mn	MANGANESE LR 1	Tablet / 100	4516080BT
	MANGANESE LR 2	Tablet / 100	4516090BT
	Combi pack# MANGANESE LR 1 / LR 2	each 100	4517621BT
	Combi pack# MANGANESE LR 1 / LR 2	each 250	4517622BT
Mn	VARIO Ascorbic Acid	Powder Pack / 100	
	VARIO Alkaline-Cyanide	Liquid reagent / 60 ml	
	VARIO PAN Indicator	Liquid reagent / 60 ml	
		Set	4535090
	VARIO Rochelle Salt Solution [h]	30 ml	4530640
Mn	VARIO Manganese Citrate Puffer F10	Powder Pack / 100	
	VARIO Sodiumperiodate F10	Powder Pack / 100	
		Set	4535100
Mn	KS265 Manganese Reagent A	Liquid reagent / 30 ml	56L026530
	KS266 Manganese Reagent B	Liquid reagent / 30 ml	56L026630
	KS267 Manganese Reagent C	Liquid reagent / 30 ml	56L030430
		Set	56R024055
MoO_4	MOLYBDATE No.1 HR	Tablet / 100	4513060BT
	MOLYBDATE No.2 HR	Tablet / 100	4513070BT
	Combi pack# MOLYBDATE No.1 HR / No.2 HR	each 100	4517631BT
	Combi pack# MOLYBDATE No.1 HR / No.2 HR	each 250	4517632BT

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[i] high range by dilution
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including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Molybdate / Molybdenum VARIO LR	0.5 - 5 mg/l 0.03 - 3 mg/l	- 610	- -	610 -	610 -	610 -	Mercaptoacetic acid	24 mm ø
Molybdate / Molybdenum VARIO HR	0.5 - 66 mg/l 0.3 - 40 mg/l	- 430	- -	430 -	430 -	420 -	Mercaptoacetic acid	24 mm ø
Molybdate / Molybdenum HR	1 - 100 mg/l 0.6 - 60 mg/l	- 430	- -	430 -	- -	- -	Thioglycolate [4]	24 mm ø
Nickel	0.02 - 1 mg/l 0.2 - 7 mg/l	- -	- -	- -	- -	443 443	Dimethylglyoxime [2, 3]	50 mm ❑ 24 mm ø
Nickel	0.1 - 10 mg/l	-	-	560	560	-	Nioxime	24 mm ø
Nitrate	0.08 - 1 mg/l	-	-	530	-	-	Zinc reduction / NED	24 mm ø
Nitrate VARIO	1 - 30 mg/l	-	-	430	430	410	Chromotropic acid	16 mm ø
Nitrate	0.5 - 14 mg/l	-	-	-	-	340	2,6-Dimethylphenole [3]	16 mm ø
Nitrite	0.01 - 0.5 mg/l	-	-	560	560	545	N-(1-Naphthyl)-ethylenediamine [2,3]	24 mm ø
Nitrite	0.03 - 0.6 mg/l 0.3 - 3 mg/l	- -	- -	- -	- -	545 545	Sulfanilic/Naphthylamine [1]	16 mm ø
Nitrite LR VARIO	0.01 - 0.3 mg/l	-	-	530	530	507	Diazotation	24 mm ø
Nitrogen-total [b)]	0.5 - 14 mg/l 5 - 140 mg/l i)	-	-	-	-	340	2,6-Dimethylphenole 2,3	16 mm ø
Nitrogen VARIO, total LR [b)]	0.5 - 25 mg/l	-	-	430	430	410	Persulphate-digestion method	16 mm ø

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Display	Reagent	Form of reagent/Quantity	Order code
MoO_4 Mo	VARIO Molybdenum 1 LR F20 VARIO Molybdenum 2 LR required accessory: mixing cylinder (not included)	Powder Pack / 100 Liquid reagent/ 50 ml **Set**	 4535450
MoO_4	VARIO Molybdenum HR1 F10 VARIO Molybdenum HR2 F10 VARIO Molybdenum HR3 F10	Powder Pack / 100 Powder Pack / 100 Powder Pack / 100 **Set**	 4535300
MoO_4	KS63 (Thioglycolate Reagent)	Liquid reagent / 65 ml	56L006365
Ni	Nickel-51, Nickel-52	Reagent test (Powder, Liquid reagent) / 50 Tests	419033
Ni	NICKEL No.1 NICKEL No.2	Tablet / 100 Tablet / 100	4515630BT 4515640BT
N	NITRATE TEST Powder NITRATE TEST Tablet NITRITE LR Nitratete test tube	Powder / 15 g Tablet / 100 Tablet / 100	465230 502810 4512310BT 366220
N	VARIO Nitrate Chromotropic VARIO Nitra X Reagent tube VARIO Deionised Water (for Zero)	Powder Pack / 50 Reaction tube / 50 Bottle, 100 ml **Set** (Tube test)	 4535580
N	Reaction tube, Nitrat-111	Tube test Liquid reagent / 24	420702
N	NITRITE LR	Tablet / 100	4512310BT
N	Reaction tube, Nitrit-101	Tube test (Powder) / 24	419018
N	VARIO Nitri 3	Powder Pack / 100	4530980
N	Digestion reagent, Compensation reagent, Nitrat-111	Tube test (Powder, Liquid reagent) / 24	420703
N	VARIO TN HYDROX. LR Tubes VARIO PERSULFATE Reagent VARIO TN Reagent A VARIO TN Reagent B VARIO TN ACID LR/HR Tubes VARIO Deionised Water (for Zero)	Digestion tubes / 50 Powder Pack / 50 Powder Pack / 50 Powder Pack / 50 Reaction tubes / 50 Bottle, 100 ml **Set** (Tube test)	 4535550

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[g] Reagent recovers most insoluble iron oxides without digestion
[h] additionally required for samples with hardness values above 300 mg/l $CaCO_3$
[i] high range by dilution
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[#] including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Nitrogen VARIO, total HR [b]	5 - 150 mg/l	-	-	430	430	410	Persulphate-digestion method	16 mm ø
Oxygen, activ	0.1 - 10 mg/l	-	-	530	530	-	DPD	
Oxygen, dissolved [c]	10 - 800 µg/l	530	-	530	530	-	Rhodazine D ™	
Ozone	0.02 - 1 mg/l 0.02 - 0.5 mg/l 0.02 - 2 mg/l	- - 530	- - -	- - 530	- - 530	510 510 -	DPD/Glycine [5]	24 mm ø 50 mm ❑ 24 mm ø
Phenols	0.1 - 5 mg/l	-	-	-	-	507	4-Aminoantipyrine [1]	24 mm ø
PHMB (Biguanide)	2 - 60 mg/l	-	-	560	560	-	Buffer/Indicator	24 mm ø
Phosphate-total LR [b]	0.07 - 3 mg/l 0.2 - 10 mg/l	- -	- -	- -	- -	690 690	Phosphomolybdic acid/ Ascorbic acid [2]	16 mm ø
Phosphate-total HR [b]	1.5 - 20 mg/l 5 - 60 mg/l	- -	- -	- -	- -	690 690	Phosphomolybdic acid/ Ascorbic acid [2]	16 mm ø
Phosphate LR, ortho	0.05 - 4 mg/l	660	-	660	660	710	Phosphomolybdic acid/ Ascorbic acid [2]	24 mm ø
Phosphate HR, ortho	1 - 80 mg/l	-	-	430	430	470	Vanadomolybdate [2]	24 mm ø
Phosphate VARIO ortho	0.06 - 2.5 mg/l	660	-	660	660	890	Phosphomolybdic acid/ Ascorbic acid [2]	24 mm ø
Phosphate VARIO ortho	0.06 - 5 mg/l	-	-	660	660	890	Phosphomolybdic acid/ Ascorbic acid [2]	16 mm ø

Material safety data sheets: www.aqualytic.de

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Legend

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Display	Reagent	Form of reagent/Quantity	Order code
N	VARIO TN HYDROX. HR Tubes VARIO PERSULFATE Reagent VARIO TN Reagent A VARIO TN Reagent B VARIO TN ACID LR/HR Tubes VARIO Deionised Water (for Zero)	Digestion tubes / 50 Powder Pack / 50 Powder Pack / 50 Powder Pack / 50 Reaction tubes / 50 Bottle, 100 ml **Set** (Tube test)	 4535560
O_2	DPD No. 4	Tablet / 100	4511220BT
O_2	Vacu-vial® [j]	Liquid reagent / 30 Adapter for Vacu-vials® [j]	380450 192075
O_3	DPD No. 1 DPD No. 3 Combi pack# DPD No.1 / No.3 Combi pack# DPD No.1 / No.3 GLYCINE [f] Combi pack# DPD No.1 / GLYCINE Combi pack# DPD No.1 / GLYCINE	Tablet / 100 Tablet / 100 each 100 each 250 Tablet / 100 each 100 each 250	4511060BT 4511080BT 4517711BT 4517712BT 4512170BT 4517731BT 4517732BT
$C_6H_5O_H$	PHENOLE No. 1 PHENOLE No. 2	Tablet / 100 Tablet / 100	4515950 4515960BT
PHMB	PHMB PHOTOMETER	Tablet / 100	4516100BT
P PO_4	Reaction tube, Phosphat-101, Phosphat- 102, Phosphat-103	Tube test (Powder, Liquid reagent) / 24	419019
P PO_4	Reaction tube, Phosphat-101, Phosphat-102, Phosphat-103	Tube test (Powder, Liquid reagent) / 24	420700
PO_4	PHOSPHATE No. 1 LR PHOSPHATE No. 2 LR Combi pack# PHOSPHATE No.1 LR / No.2 LR	Tablet / 100 Tablet / 100 each 100	4513040BT 4513050BT 4517651BT
PO_4	PHOSPHATE No. 1 HR PHOSPHATE No. 2 HR Combi pack# PHOSPHATE No.1 HR / No.2 HR	Tablet / 100 Tablet / 100 each 100	4515810BT 4515820BT 4517661BT
PO_4	VARIO PHOSPHATE RGT, F10	Powder Pack / 100	4531550
PO_4	VARIO Dilution Vial VARIO PHOSPHATE RGT, F10 VARIO Deionised Water (for Zero)	50 Tubes Powder Pack / 50 Bottle, 100 ml **Set** (Tube test)	 4535200

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Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Phosphate-ortho	3 - 60 mg/l	-	-	-	-	438	Vanadomolybdate [2]	16 mm ø
Phosphate VARIO [b] acid hydrolyzable and total	acid hydrolyzable: 0.02 - 1.6 mg/l 0.06 - 5 mg/l total: 0.02 - 1.1 mg/l 0.06 - 3.5 mg/l	-	-	660	660	890	Acid digestion Phosphomolybdic acid/ Ascorbic acid [2] Acid-/ Persulphate digestion Phosphomolybdic acid/ Ascorbic acid [2]	16 mm ø 16 mm ø
Phosphate VARIO total [b]	0.02 - 1.1 mg/l 0.06 - 3.5 mg/l	-	-	660	660	890	Acid-/ Persulphate digestion Phosphomolybdic acid/ Ascorbic acid [2]	16 mm ø 16 mm ø
Phosphate, ortho [c]	5 - 40 mg/l	-	-	430	430	-	Vanadomolybdate [2]	
Phosphate, ortho [c]	0.05 - 5 mg/l	-	-	660	660	-	Stannous chloride [2]	
Phosphate LR	0.1 - 10 mg/l	-	-	660	-	-	Phosphomolybdic acid/ Ascorbic acid [2]	24 mm ø
Phosphate HR	5 - 80 mg/l	430	-	430	-	-	Vanadomolybdate [2]	24 mm ø
Phosphonate VARIO	0.02 - 125 mg/l	-	-	660	660	660	Persulfate UV-Oxidation	24 mm ø
pH value	5.2 - 6.8	-	-	560	560	-	Bromcresol purple [5]	24 mm ø
pH value	6.5 - 8.4	560	560	560	560	558	Phenol red [5]	24 mm ø
pH value	6.5 - 8.4	560	560	560	560	558	Phenol red [5]	24 mm ø
pH value	8.0 - 9.6	-	-	560	560	-	Thymol blue [5]	24 mm ø

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Display	Reagent	Form of reagent/Quantity	Order code
PO_4	Reaction tube	Tube test / 24	420701
	VARIO Acid Reagent Vial	50 Tubes	
P	VARIO PHOSPHATE RGT, F10	Powder Pack / 50	
PO_4	VARIO Deionised Water (for Zero)	Bottle, 100 ml	
	1N NaOH	Bottle / 100 ml	
P	1,54 N NaOH	Bottle / 100 ml	
PO_4	VARIO Potassium Persulfate F10	Powder Pack / 50	
		Set (Tube test)	4535250
P	VARIO Acid Reagent Vial	50 Tubes	
	VARIO PHOSPHATE RGT, F10	Powder Pack / 50	
PO_4	VARIO Deionised Water (for Zero)	Bottle, 100 ml	
	1,54 N NaOH	Bottle / 100 ml	
	VARIO Potassium Persulfate F10	Powder Pack / 50	
		Set (Tube test)	4535210
PO_4	Vacu-vial® [j]	Test Kit / 30	380460
		Adapter for Vacu-vials® [j]	192075
PO_4	Vacu-vial® [j]	Test Kit / 30	380480
		Adapter for Vacu-vials® [j]	192075
PO_4	KS80 (CRP Reagent)	Liquid reagent / 2 x 65 ml	56L008065
	KP119 (Ascorbic acid)	Powder / 20 g	56P011920
		Set	56R023765
PO_4	KS228 (Ammonia Molybdate)	Liquid reagent / 65 ml	56L022865
	KS229 (Ammonia Metavanadate)	Liquid reagent / 65 ml	56L022965
		Set	56R019090
	KS278 (50 % Sulfuric Acid)	Liquid reagent / 65 ml	56L027865
	KS135 (Phenolphthalein Indicator)	Liquid reagent / 65 ml	56L013565
	KS144 (Calcium Hardness Puffer)	Liquid reagent / 65 ml	56L014465
	KT274 (Ammonium Persulfate Tablette)	Liquid reagent / 65 ml	56T027450
PO_4	VARIO Potassium Persulfate F10	Powder Pack / 100	
	VARIO PHOSPHATE RGT, F10	Powder Pack / 200	
		Set	4535220
pH	BROMOCRESOLPURPLE/PHOTOMETER	Tablet / 100	4515700BT
pH	PHENOLRED / PHOTOMETER	Tablet / 100	4511770BT
pH	PHENOLRED Solution	Liquid reagent / 15 ml	471040
pH	THYMOLBLUE / PHOTOMETER	Tablet / 100	4515710

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[#] including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Polyacrylates	1 - 30 mg/l	530	-	660	-	-	Turbidity	24 mm ø
Potassium	0.7 - 12 mg/l 1 - 10 mg/l	- -	- -	430 -	430 -	- 730	Tetraphenylborate-Turbidity [4]	24 mm ø 24 mm ø
Silica	0.05 - 4 mg/l 0.05 - 3 mg/l	660 -	- -	660 -	660 -	- 820	Silicomolybdate [2,3]	24 mm ø
Silica VARIO LR	0.1 - 1.6 mg/l	660	-	660	660	815	Heteropolyblue [2]	24 mm ø
Silica VARIO HR	1 - 90 mg/l 1 - 100 mg/l	430 -	- -	430 -	430 -	- 452	Silicomolybdate [2,3]	24 mm ø 24 mm ø
Silica	0.1 - 8 mg/l	-	-	430	-	-	Heteropolyblue [2]	24 mm ø
Sodiumhypochlorite	0.2 - 16 %	-	-	530	530	-	Potssium iodide [5]	24 mm ø
Spectral Absorption-coefficient	0 - 50 m^{-1}	- - -	- - -	- - -	- - -	436 525 620	Direct reading [1] ISO 7887:1994	50 mm ❑
Sulphate VARIO	5 - 100 mg/l 2 - 100 mg/l	530 -	- -	530 -	530 -	- 450	Bariumsulphate Turbidity [2]	24 mm ø
Sulphate	5 - 100 mg/l	-	-	610	610	-	Bariumsulphate Turbidity [2]	24 mm ø
Sulphide	0.04 - 0.5 mg/l	-	-	660	660	668	DPD/Catalyst [3, 4]	24 mm ø

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[4] Photometrische Analyse, Lange/Vejdelek, Verlag Chemie; 1980
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Display	Reagent	Form of reagent/Quantity	Order code
Polyacryl	KS255 (Polyacrylate Reagent 1) KS256 (Polyacrylate Reagent 2) KS336 (Propan-2-ol) C18 (Cartouche) KS173 (2,4 Dinitrophenol) KT183 (Nitric Acid)	Liquid reagent / 65 ml Liquid reagent / 65 ml **Set** Liquid reagent / 65 ml Liquid reagent / 65 ml Liquid reagent / 65 ml	56L025565 56L026565 56R019165 56L033665 AS-K22811-KW 56L017365 56L018365
K	POTASSIUM T	Tablet / 100	4515670
SiO_2	SILICA No. 1 SILICA No. 2 Combi pack# SILICA No.1 / No.2 Combi pack# SILICA No.1 / No.2 SILICA PR (in presence of phosphate)	Tablet / 100 Tablet / 100 each 100 each 250 Tablet / 100	4513130 4513140 4517671 4517672 4513150
SiO_2	VARIO Amino Acid F10 VARIO Citric Acid F10 VARIO Molybdate 3 Reagent solution	Powder Pack / 100 Powder Pack / 100 Liquid reagent / 50 ml **Set**	 4535690
SiO_2	VARIO Silica HR Molybdate F10 VARIO Silica HR Acid Rgt F10 VARIO Silica HR Citric Acid F10	Powder Pack / 100 Powder Pack / 100 Powder Pack / 100 **Set**	 4535700
SiO_2	KS104 (Silica Reagent 1) KS105 (Silica Reagent 2) KP106 (Silica Reagent 3)	Liquid reagent / 65 ml Liquid reagent / 65 ml Powder / 10 g **Set**	56L010465 56L010565 56P010610 56R023856
NaOCl	ACIDIFYING GP CHLORINE HR (KI) Combi pack# CHLORINE HR (KI)/ACIDIFYING GP Combi pack# CHLORINE HR (KI)/ACIDIFYING GP Dilution set for sample preparation	Tablet / 100 Tablet / 100 each 100 each 250 1 set	4515480 4513000 4517721 4517722 414470
-	no reagents required	-	-
SO_4	VARIO Sulpha 4 / F10	Powder Pack / 100	4532160
SO_4	SULFATE T	Tablet / 100	4515450BT
S	SULFIDE No. 1 SULFIDE No. 2	Tablet / 100 Tablet / 100	502930 502940

[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] AL450: 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 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 $CaCO_3$
[i] high range by dilution
[j] Vacu-vials® is a Chemetrics Trademark
including stirring rod

Reagents

Test	Range	Wave lengths λ / nm AL100	AL200	AL400 & AL410	AL450	AL800	Method	Cuvette
Sulphite	0.1 - 5 mg/l 0.1 - 10 mg/l 0.05 - 4 mg/l	- - -	- - -	430 - -	430 - -	- 405 405	DTNB	24 mm ø 10 mm o 24 mm ø
Surfactants (anionic)	0.05 - 2 mg/l	-	-	-	-	653	Methylene blue [1]	16 mm ø
Suspended solids	0 - 750 mg/l	660 -	- -	660 -	660 -	- 660	Turbidity/Attenuated Radiation	24 mm ø 50 mm ❑
TOC [b)]	50 - 800 mg/l	-	-	-	-	596	H_2SO_4/ Indicator	16 mm ø
Triazoles (UV lamp required)	1 - 16 mg/l	430	-	430	-	-	Catalyzed UV Digestion	24 mm ø
Turbidity	5 - 500 0 - 1000	- -	- -	- 530	- 530	860 -	Attenuated Radiation Method Attenuated Radiation Method	50 mm ❑ 24 mm ø
Urea	0.1 - 2.5 mg/l 0.2 - 5 mg/l [i)] 0.1 - 2 mg/l	610 610 -	610 610 -	610 - -	610 - -	- - 676	Urease / Indophenol	24 mm ø
Zinc	0.02 - 1 mg/l 0.02 - 0.5 mg/l	- -	- -	610 -	610 -	- 616	Zincon[3]/EDTA	24 mm ø
Zinc	0.1 - 2.5 mg/l	610	-	610	-	-	Zincon[3]/EDTA	24 mm ø

Material safety data sheets: www.aqualytic.de

For other reagent quantities please see our current price list.

Legend

[1] Deutsche Einheitsverfahren zur Wasser-, Abwasser- und Schlamm- Untersuchung
[2] Standard Methods for the Examination of Water and Wastewater, 18th Edition; 1992
[3] Photometrische Analysenverfahren, Schwedt, Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart; 1989
[4] Photometrische Analyse, Lange/Vejdelek, Verlag Chemie; 1980
[5] Colorimetric Chemical Analytical Methods, 9th Edition, Lovibond®

Display	Reagent	Form of reagent/Quantity	Order code
SO_3	SULFITE LR	Tablet / 100	4518020BT
MBAS	Spectroquant® 1.14697.0001d)	Tube test / 25	420755
-	no reagents required	-	-
TOC	Spectroquant® 1.14879.0001d)	Tube test / 25 Aluminium screwcaps / 6 pc.	420756 420757
Benzotriazole	VARIO Triazole Rgt F25		4532200
FAU FAU	no reagents required	-	-
CH_4N_2O	UREA Reagent 1 UREA Reagent 2 AMMONIA No. 1 AMMONIA No. 2 Combi pack# AMMONIA No.1 / No.2 Combi pack# AMMONIA No.1 / No.2 (without Urea Reagent 1 and 2, please order seperately UREA PRETREAT (compensates for the interference of free Chlorine up to 2 mg/l)	Liquid reagent / 15 ml Liquid reagent / 10 ml Tablet / 100 Tablet / 100 each 100 each 250 Tablet / 100	459300 459400 4512580BT 4512590BT 4517611BT 4517612BT 4516110BT
Zn	COPPER/ZINC LR EDTA DECHLOR (in case of high levels of residual chlorine)	Tablet / 100 Tablet / 100 Tablet / 100	4512620BT 4512390BT 4512350BT
Zn	KS243 (Zinc Reagent 1) KP244 (Zinc Reagent 2)	Liquid reagent / 65 ml Powder / 20 g **Set**	56L024365 56L024420 56R023965

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