

# Reagents also compatible in Hach®

## VARIO Powder Packs (PP) and Reagents

Test	Range	Reagent	Liquid Reagent	Tube Tests	Powder Pack
Aluminium	0 – 0.22 mg/l Al	VARIO Aluminium Reagent, Set F20 consists of: VARIO Aluminium ECR VARIO Aluminium Hexamine VARIO Aluminium Masking Rgt	■		■ ■
Ammonia	0 – 0.5 mg/l N	VARIO Ammonia Nitrogen, Set F10 consists of: VARIO Ammonia Salicylate, F10 VARIO Ammonia Cyanurate, F10			■ ■
Ammonia LR	0 – 2.5 mg/l N	VARIO Am tube test Reagent, Set LR, F5 consists of: VARIO Ammonia Salicylate, F5 VARIO Ammonia Cyanurate, F5 VARIO Am Diluent Reagent Low Range		■	■ ■
Ammonia HR	0 – 50 mg/l N	VARIO Am tube test Reagent, Set HR, F5 consists of: VARIO Ammonia Salicylate, F5 VARIO Ammonia Cyanurate, F5 VARIO Am Diluent Reagent High Range		■	■ ■
Bromine	0.05 – 4.5 mg/l Br	VARIO Chlorine TOTAL-DPD, F10 VARIO Chlorine TOTAL-DPD, F10			■ ■
Chlorine free, combined and total Chlorine dioxide	Visual Test Kit up to 3.5mg/l Cl <sub>2</sub>	VARIO Chlorine FREE-DPD, F5 VARIO Chlorine FREE-DPD, F5 VARIO Chlorine TOTAL-DPD, F5 VARIO Chlorine TOTAL-DPD, F5 VARIO Chlorine FREE-DPD, F10 VARIO Chlorine FREE-DPD, F10 VARIO Chlorine TOTAL-DPD, F10 VARIO Chlorine TOTAL-DPD, F10			■ ■ ■ ■ ■ ■ ■ ■
	0.01 – 2 mg/l Cl <sub>2</sub>	VARIO Chlorine FREE-DPD, F25 VARIO Chlorine FREE-DPD, F25 VARIO Chlorine TOTAL-DPD, F25 VARIO Chlorine TOTAL-DPD, F25			■ ■ ■ ■
	0 – 5 mg/l Cl <sub>2</sub>	VARIO Chlorine TOTAL-DPD, F10 VARIO Chlorine FREE-DPD, F25 VARIO Chlorine FREE-DPD, F25 VARIO Chlorine TOTAL-DPD, F25 VARIO Chlorine TOTAL-DPD, F25			■ ■ ■ ■ ■
Chlorine, online free and total	0,035 - 5 mg/l Cl <sub>2</sub>	Chlorine FREE, Set consists of: Chlorine, DPD Compound (free & total) Chlorine FREE, Indicator Solution Chlorine FREE, Buffer Solution	■ ■		■
		Chlorine TOTAL, Set consists of: Chlorine, DPD Compound (free & total) Chlorine TOTAL, Indicator Solution Chlorine TOTAL, Buffer Solution	■ ■	■	■
COD HR	0 – 15000 mg/l O <sub>2</sub>	COD VARIO 0 - 15000 mg/l		■ ■ ■	
Copper	0 – 5 mg/l Cu	VARIO CU1, F10 VARIO CU1, F10			■ ■
DEHA	20 - 500 µg/l DEHA	VARIO DEHA REAGENT SET consists of: VARIO OXYSCAV 1 RGT VARIO DEHA 2 RGT	■		■

# devices\*

Method	Applications	Quantity	Code
Eriochrome cyanine R	Water	<b>1 Set</b> 100 100 25 ml	53 50 00
Salicylate	Water, waste water, seawater	<b>1 Set</b> 2 x 100 2 x 100	53 55 00
Salicylate	Water, waste water, seawater	<b>1 Set</b> 50 50 50 tubes	53 56 00
Salicylate	Water, waste water, seawater	<b>1 Set</b> 50 50 50 tubes	53 56 50
DPD-Method: <b>USEPA</b> accepted for drinking water analysis	Water, waste water, seawater	100 1000	53 01 90 53 01 93
DPD method: <b>USEPA</b> accepted for drinking water analysis	Water, waste water, seawater	100 1000 100 1000	53 00 90 53 00 93 53 00 80 53 00 83
DPD method: <b>USEPA</b> accepted for drinking water analysis	Water, waste water, seawater	100 1000 100 1000	53 01 80 53 01 83 53 01 90 53 01 93
DPD method: <b>USEPA</b> accepted for drinking water analysis	Water, waste water, seawater	100 1000 100 1000	53 01 10 53 01 13 53 01 30 53 01 33
DPD-method: <b>USEPA</b> accepted for drinking water analysis	for use in Hach® CL17 Process Analysers	<b>1 Set</b> 24 g 473 ml 473 ml	53 02 10 53 02 00 53 02 22 53 02 23
DPD-method: <b>USEPA</b> accepted for drinking water analysis	for use in Hach® CL17 Process Analysers	<b>1 Set</b> 24 g 473 ml 473 ml	54 02 10 53 02 00 54 02 22 54 02 23
Dichromate Reactor, Digestion	Water, waste water, seawater	25 tubes 150 tubes 25 tubes, mercury free 150 tubes, mercury free	2 42 07 22 2 42 07 27 2 42 07 12 2 42 07 16
Bicinchoninate	Water, waste water, seawater	100 1000	53 03 00 53 03 03
		<b>1 Set</b>	53 60 00
PPST		100 100 ml	



MSDS (Material Safety Data Sheets): [www.lovibond.com](http://www.lovibond.com)

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Hydrazine	0.005 – 0.6 mg/l N <sub>2</sub> H <sub>4</sub>	VARIO Hydra2 Reagent	■		
Iron (Fe <sup>2+</sup> , Fe <sup>3+</sup> ), dissolved	0 – 3 mg/l Fe 0 – 1.8 mg/l Fe	VARIO Ferro, F10 VARIO IRON TPTZ			■ ■
Iron, total, Fe in Mo	0.01 - 1.8 mg/l	VARIO (Fe in Mo) Reagent Set consists of: VARIO (Fe in Mo) Rgt 1 VARIO (Fe in Mo) Rgt 2			■ ■
Manganese LR	0 – 0.7 mg/l Mn	VARIO Manganese Reagent, Set LR, F10 consists of: VARIO Alkaline-Cyanide Reagent Solution VARIO Ascorbic Acid VARIO PAN Indicator Solution	■ ■		■
Manganese HR	0 – 20 mg/l Mn	VARIO Manganese Reagent, Set HR, F10 consists of: VARIO MANGANESE CITRATE BUFFER, F10 VARIO SODIUMPERIODATE, F10			■ ■
Molybdate LR	0.5 – 5 mg/l MoO <sub>4</sub>	VARIO MOLYBDENUM LR, Set, F10 consists of: VARIO Molybdenum 1 LR, F10 VARIO Molybdenum 2 LR, F10			■ ■
Molybdate HR	0 – 35 mg/l Mo	VARIO MOLYBDENUM HR, Set F10 consists of: VARIO MOLYBDENUM HR1, F10 VARIO MOLYBDENUM HR2, F10 VARIO MOLYBDENUM HR3, F10			■ ■ ■
	0 – 35 mg/l Mo	VARIO MOLYBDENUM HR, Set F25 consists of: VARIO MOLYBDENUM HR1, F25 VARIO MOLYBDENUM HR2, F25 VARIO MOLYBDENUM HR3, F25			■ ■ ■
Nitrate	0 – 30 mg/l N	VARIO NITRA X Reagent, Set consists of: VARIO NITRA X Test vials VARIO NITRA NITROGEN NITRATE Reag. B Deionised water		■	■
Nitrogen, total LR	0 – 25 mg/l N	VARIO TOTAL NITROGEN LR, Set consists of a) und b): a) VARIO TOTAL NITROGEN HYDROX. LR, Set VARIO TOTAL NITROGEN HYDROX. LR, tubes VARIO TOTAL N PERSULFATE Reagent, b) VARIO TOTAL NITROGEN ACID LR/HR, Set VARIO TOTAL NITROGEN Reag. A VARIO TOTAL NITROGEN Reag. B VARIO TOTAL NITROGEN ACID LR/HR tubes Deionised water	■	■	■ ■ ■
Nitrogen, total HR	5 – 150 mg/l N	VARIO TOTAL NITROGEN HR, Set consists of a) und b): a) VARIO TOTAL NITROGEN HYDROX. HR, Set VARIO TOTAL NITROGEN HYDROX. HR, tubes VARIO TOTAL N PERSULFATE Reagent, b) VARIO TOTAL NITROGEN ACID LR/HR, Set VARIO TOTAL NITROGEN Reag. A VARIO TOTAL NITROGEN Reag. B VARIO TOTAL NITROGEN ACID LR/HR tubes Deionised water	■	■	■ ■ ■

# devices\*

Method	Applications	Quantity	Code
4-(Dimethylamino)-benzaldehyde	Water, waste water, seawater	100 ml	53 12 00
Iron, total: 1, 10-phenantroline Iron, total: TPTZ	Water, waste water, seawater	100	53 05 60
	Water, waste water, seawater	100	53 05 50
		<b>1 Set</b>	53 60 10
Fe in Mo	Water, waste water	100	53 03 10
		100	53 03 20
		<b>1 Set</b>	53 50 90
PAN	Water, waste water	60 ml 100 60 ml	
Periodate oxidation	Water, waste water	<b>1 Set</b> 100 100	53 51 00
Mercaptoacetic acid	Water, waste water	<b>1 Set</b> 100 100	53 54 50
		<b>1 Set</b>	53 53 00
Mercaptoacetic acid	Water, waste water	100 100 100	
		<b>1 Set</b>	53 54 00
Mercaptoacetic acid	Water, waste water	100 100 100	
		<b>1 Set</b>	53 55 80
Chromotropic acid	Water, waste water	50 50 100 ml	
		<b>1 Set</b>	53 55 50
Persulfate digestion	Water, waste water	50 50 50 50 100 ml	
		<b>1 Set</b>	53 55 60
Persulfate digestion	Water, waste water	50 50 50 50 100 ml	



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Nitrite LR	0 – 0.3 mg/l N	VARIO NITRI3, F10 VARIO NITRI3, F25			■ ■
Phosphate	0 – 2.5 mg/l PO <sub>4</sub>	VARIO PHOSPHATE RGT, F10			■
Phosphate, ortho	0.06 - 5 mg/l PO <sub>4</sub>	VARIO REACTIVE PHOSPHATE REAGENT SET consists of: VARIO PHOSPHATE DILUTION TUBE TEST VARIO PHOSPHATE RGT, F10 Deionised water	■	■	■
Phosphate, Acid hydrolyzable and total	acid hydrolyzable: 0.02 - 1.6 mg/l P Δ 0.06 - 5 mg/l PO <sub>4</sub> total: 0.02 - 1.1 mg/l P Δ 0.06 - 3.5 mg/l PO <sub>4</sub>	VARIO TOTAL & ACID HYDROLYZABLE PHOSPHATE REAGENT SET consists of: VARIO PHOSPHATE ACID REAG. TUBE TEST Deionised water VARIO PHOSPHATE RGT, F10 VARIO SODIUM HYDROXID 1N VARIO SODIUM HYDROXID 1,54N VARIO POTASSIUM PERSULFATE	■ ■ ■	■	■ ■ ■
Phosphate, total	0.02 - 1.1 mg/l P Δ 0.06 - 3.5 mg/l PO <sub>4</sub>	VARIO TOTAL PHOSPHATE REAGENT SET consists of: VARIO PHOSPHATE ACID REAG. TUBE TEST VARIO PHOSPHATE RGT, F10 Deionised water VARIO SODIUM HYDROXID 1,54N VARIO POTASSIUM PERSULFATE	■ ■	■	■ ■
Phosphonates	0.02 - 125 mg/l PO <sub>4</sub>	VARIO PHOSPHONATE REAGENT SET consists of: VARIO Potassium Persulfate F10 VARIO PHOSPHATE RGT, F10			■ ■
Silica, LR	0 – 1.6 mg/l SiO <sub>2</sub>	VARIO SILICA Reagent LR, Set F10 consists of: VARIO LR SILICA AMINO ACID F VARIO SILICA CITRIC ACID VARIO MOLYBDATE 3 Reagent solution	■		■ ■
Silica, HR	0 – 100 mg/l SiO <sub>2</sub>	VARIO SILICA Reagent HR, Set F10 consists of: VARIO SILICA HR MOLYBDATE, F10 VARIO SILICA HR ACID RGT, F10 VARIO SILICA CITRIC ACID, F10			■ ■ ■
Silica, UHR	0 – 200 mg/l SiO <sub>2</sub>	VARIO SILICA Reagent HR, Set F25 consists of: VARIO SILICA HR MOLYBDATE, F25 VARIO SILICA HR ACID RGT, F25 VARIO SILICA HR CITRIC ACID, F25			■ ■ ■
Sulphate	0 – 70 mg/l SO <sub>4</sub>	VARIO Sulpha 4, F10 VARIO Sulpha 4, F25			■ ■
Triazoles	1 - 16 mg/l	VARIO Triazole Rgt F25			■

# devices\*

Method	Applications	Quantity	Code
Diazotiation	Water, waste water	100 100	53 09 80 53 09 70
Phosphomolybdic acid/ Ascorbic acid	Water, waste water, seawater	100	53 15 50
		<b>1 Set</b>	53 52 00
Phosphomolybdic acid/ Ascorbic acid	Water, seawater	50 50 100 ml	
		<b>1 Set</b>	53 52 50
Phosphomolybdic acid/ Ascorbic acid	Water, seawater	50 50 100 ml 100 ml 100 ml 50	
		<b>1 Set</b>	53 52 10
Phosphomolybdic acid/ Ascorbic acid	Water, seawater	50 50 100 ml 100 ml 50	
		<b>1 Set</b>	53 52 20
Persulfate UV-Oxidation	Water	100 200	
		<b>1 Set</b>	53 56 90
Heteropoly blue	Water, seawater	100 200 2 x 50 ml	
		<b>1 Set</b>	53 57 00
Silicomolybdate	Water, seawater	100 100 100	
		<b>1 Set</b>	53 59 00
Silicomolybdate	Water, seawater	100 100 100	
<b>USEPA</b> accepted for waste water analysis	Water, waste water, seawater	100 100	53 21 60 53 21 50
Catalyzed UV Digestion	Water	100	53 22 00



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