

Choosing Columns

By EPA

EPA Drinking Water Test Method			
Method	Description	Vertical® Recommend	Page
501.3	Measurement of trihalomethanes in drinking water with GC/MS and SIM	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 75m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 105m x 0.53mm df = 3.0µm	158
502.1/502.2*	Volatile halogenated organic compounds in water	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
503.1	Volatile aromatics and unsaturated organic compounds in water by purge and trap GC	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
504/504.1*	1,2-dibromoethane (EDB) and 1,2-dibromo-3-chloropropane (DBCP) in water by microextraction and gas chromatography	VertiBond™ 1, 30m x 0.32mm df = 0.25µm	137
		VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
505*	Analysis of organohalide pesticides and Arochlors in drinking water by microextraction and gas chromatography	VertiBond™ 1, 30m x 0.32mm df = 1.0µm	137
		VertiBond™ 17ms, 30m x 0.32mm df = 0.5µm	149
		VertiBond™ 17ms, 30m x 0.25mm df = 0.25µm	149
507*	Determination of nitrogen and phosphorus containing pesticides in water by GC with a nitrogen-phosphorus detector (NPD)	VertiBond™ 5, 30m x 0.25mm df = 0.25µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
		VertiBond™ 1701, 30m x 0.25mm df = 0.25µm	161
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
508*	Determination of chlorinated pesticides in water by GC with an electron capture detector	VertiBond™ 5, 30m x 0.25mm df = 0.25µm	143
		VertiBond™ 1701, 30m x 0.25mm df = 0.25µm	161
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
513*	2,3,7,8-tetrachlorodibenzo-p-dioxin	VertiBond™ Silar90, 50m x 0.25mm df = 0.2µm	168
		VertiBond™ 5ms, 60m x 0.25mm df = 0.1µm	146
515/515.2	Determination of chlorinated acids in water using liquid-solid extraction and gas chromatography with an electron capture detector (ECD)	VertiBond™ 1, 30m x 0.32mm df = 0.25µm	137
		VertiBond™ 5, 30m x 0.32mm df = 0.25µm	143
		VertiBond™ 1701, 30m x 0.32mm df = 0.25µm	161
		VertiBond™ 5ms, 30m x 0.32mm df = 0.25µm	146
524.2*	Measurement of purgeable organic compounds in water by purge and trap capillary column GC/MS	VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
		VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 75m x 0.53mm df = 3.0µm	158
		VertiBond™ 5ms, 30m x 0.25mm df = 0.1µm	146
525*	Determination of organic compounds in drinking water by liquid-solid extraction and capillary column GC/MS	VertiBond™ 5, 30m x 0.32mm df = 0.25µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
551	Chlorination Solvents & Disinfection By-Products in Drinking Water by Liquid-Liquid Extraction	VertiBond™ 1, 30m x 0.32mm df = 1µm	137
		VertiBond™ 210, 30m x 0.32mm df = 0.5µm	156
552/552.1	Haloacetic Acids & Dalapon in Drinking Water by Ion Exchange Liquid-Solid Extraction & GC with ECD	VertiBond™ 1701, 30m x 0.32mm df = 0.25µm	161
		VertiBond™ 210, 30m x 0.32mm df = 0.5µm	156

*These EPA-methods are considered to be the most important ones (ref.: Environ Sci Technol Vol 25 no. 6 1991 p 998-1006)

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601	Purgeable halocarbons	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 75m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 105m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.0µm	158
602	Purgeable aromatics	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 105m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.0µm	158
603	Acrolein and acrylonitrile	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.0µm	158
604/605	Phenols & benzidines	VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
606	Phthalate esters	VertiBond™ 1, 15m x 0.53mm df = 1.5µm	137
		VertiBond™ 5, 15m x 0.53mm df = 1.2µm	142
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
607	Nitrosamines	VertiBond™ 5, 30m x 0.53mm df = 1.5µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.5µm	146
608	Organochlorine pesticides and PCBs	VertiBond™ 5ms, 50m x 0.25mm df = 0.1µm	146
609	Nitroaromatics and isophorone	VertiBond™ 5, 30m x 0.53mm df = 1.5µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.5µm	146
610	Polycyclic Aromatic Hydrocarbons	VertiBond™ 5, 30m x 0.32mm df = 0.25µm	143
		VertiBond™ 5ms, 30m x 0.32mm df = 0.10µm	146
611	Haloethers	VertiBond™ 5, 15m x 0.53mm df = 1.5µm	142
		VertiBond™ 5ms, 30m x 0.25mm df = 0.5µm	146
612*	Chlorinated hydrocarbons	VertiBond™ 5, 30m x 0.32mm df = 1.0µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 1.0µm	146
613	2,3,7,8-tetrachlorodibenzo-p-dioxin	VertiBond™ Silar90, 50m x 0.25mm df = 0.2µm	168
		VertiBond™ 5ms, 60m x 0.25mm df = 0.1µm	146
615	Chlorinated herbicides	VertiBond™ 1, 30m x 0.32mm df = 0.25µm	137
		VertiBond™ 1701, 30m x 0.53mm df = 1.0µm	162
		VertiBond™ 1701, 30m x 0.25mm df = 0.25µm	161
619	Triazine herbicides	VertiBond™ 17, 30m x 0.53mm df = 1.0µm	148
		VertiBond™ 5, 30m x 0.53mm df = 1.0µm	143
		VertiBond™ 17ms, 30m x 0.25mm df = 0.5µm	149
624	Purgeables	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 75m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 105m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
625	Base/neutrals and acids	VertiBond™ 5ms, 30m x 0.32mm df = 0.25µm	146
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
680	Pesticides and PCBs in water and soil/sediment	VertiBond™ 5, 30m x 0.32mm df = 0.25µm	142
		VertiBond™ 5ms, 30m x 0.32mm df = 0.25µm	146
1618	Organophosphorus Pesticides, Organohalide Pesticides, Phenoxyacid Herbicides	VertiBond™ 1, 30m x 0.53mm df = 1.2µm	137
		VertiBond™ 1701, 30m x 0.53mm df = 1.2µm	162
1624	Volatile org. comp. by isotope dilution GC/MS	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
1625	Semivolatile org. comp. by isotope dilution	VertiBond™ 5, 30m x 0.25mm df = 0.25µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
1653	Chlorinated phenols in waste water by in-situ MS acylation and GC low bleed/MS	VertiBond™ 5, 30m x 0.32mm df = 0.25µm	143
		VertiBond™ 5ms, 30m x 0.32mm df = 0.25µm	146

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8010	Halogenated volatile organics	VertiBond™ 624, 75m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
8015	Non-halogenated volatile organics	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
8020/8021	Aromatic volatile organics	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
8030/8031	Acrolein, acrylonitrile, acetonitrile	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.4µm	158
8040/8041	Phenols	VertiBond™ 5, 30m x 0.53mm df = 1.5µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
8060/8061	Phthalate esters	VertiBond™ 1, 15m x 0.53mm df = 1.5µm	137
8080	Organochlorine pesticides and PCBs	VertiBond™ 5, 30m x 0.53mm df = 1.5µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.5µm	146
8081/8082	Organochlorine pesticides and PCBs as Arochlor	VertiBond™ 5, 30m x 0.53mm df = 1.5µm	143
		VertiBond™ 1701, 30m x 0.53mm df = 1.0µm	162
8090/8091	Nitroaromatics and cyclic ketones	VertiBond™ 5, 30m x 0.53mm df = 1.5µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 0.5µm	146
8100	Polynuclear aromatic hydrocarbons	VertiBond™ 5, 30m x 0.32mm df = 0.25µm	143
		VertiBond™ 5ms, 30m x 0.32mm df = 0.25µm	146
8120/8121	Chlorinated hydrocarbons	VertiBond™ 1, 30m x 0.32mm df = 1.0µm	137
		VertiBond™ 1ms, 30m x 0.32mm df = 1.0µm	140
8140	Organophosphorus pesticides	VertiBond™ 1, 30m x 0.53mm df = 1.5µm	137
		VertiBond™ 1701, 30m x 0.53mm df = 1.5µm	162
		VertiBond™ 1ms, 30m x 0.25mm df = 0.25µm	140
8141	Organophosphorus pesticides	VertiBond™ 5, 15m x 0.53mm df = 1.5µm	142
		VertiBond™ 5ms, 15m x 0.25mm df = 0.25µm	146
8150/8151	Chlorinated herbicides	VertiBond™ 5, 25m x 0.53mm df = 1.0µm	143
		VertiBond™ 1701, 30m x 0.53mm df = 1.0µm	162
		VertiBond™ 5ms, 30m x 0.25mm df = 0.25µm	146
8240	GC/MS for volatile organics	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 75m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 105m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.0µm	158
8250	GC/MS for semi-volatile organics	VertiBond™ 5ms, 30m x 0.25mm df = 0.5µm	146
8260	GC/MS method for volatile organics capillary techniques	VertiBond™ 624, 30m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 75m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 105m x 0.53mm df = 3.0µm	158
		VertiBond™ 624, 30m x 0.25mm df = 1.0µm	158
8270	GC/MS method for semivolatile organics: capillary techniques	VertiBond™ 5, 30m x 0.25mm df = 1.0µm	143
		VertiBond™ 5ms, 30m x 0.25mm df = 1.0µm	146
8280	Analysis of polychlorinated dibenzofurans	VertiBond™ 5, 30m x 0.25mm df = 0.25µm	143
		VertiBond™ 5ms, 60m x 0.25mm df = 0.1µm	146
		VertiBond™ Silar90, 50m x 0.25mm df = 0.2µm	168