

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	30 m x 0.53 mm 624, df = 3.0 µm	169
		75 m x 0.53 mm 624, df = 3.0 µm	169
		105 m x 0.53 mm 624, df = 3.0 µm	169
502.1/502.2*	Volatile halogenated organic compounds in water	30 m x 0.53 mm 624, df = 3.0 µm	169
503.1	Volatile aromatics and unsaturated organic compounds in water by purge and trap GC	30 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
504/504.1*	1,2-dibromoethane (EDB) and 1,2-dibromo-3-chloropropane (DBCP) in water by microextraction and gas chromatography	30 m x 0.32 mm 1, df = 0.25 µm	148
		30 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
505*	Analysis of organohalide pesticides and Arochlors in drinking water by microextraction and gas chromatography	30 m x 0.32 mm 1, df = 1.0 µm	148
		30 m x 0.32 mm 17ms, df = 0.5 µm	160
		30 m x 0.25 mm 17ms, df = 0.25 µm	160
507*	Determination of nitrogen and phosphorus containing pesticides in water by GC with a nitrogen-phosphorus detector (NPD)	30 m x 0.25 mm 5, df = 0.25 µm	154
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
		30 m x 0.25 mm 1701, df = 0.25 µm	172
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
508*	Determination of chlorinated pesticides in water by GC with an electron capture detector	30 m x 0.25 mm 5, df = 0.25 µm	154
		30 m x 0.25 mm 1701, df = 0.25 µm	172
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
513*	2,3,7,8-tetrachlorodibenzo-p-dioxin	50 m x 0.25 mm Silar90, df = 0.2 µm	179
		60 m x 0.25 mm 5ms, df = 0.1 µm	157
515/515.2	Determination of chlorinated acids in water using liquid-solid extraction and gas chromatography with an electron capture detector (ECD)	30 m x 0.32 mm 1, df = 0.25 µm	148
		30 m x 0.32 mm 5, df = 0.25 µm	154
		30 m x 0.32 mm 1701, df = 0.25 µm	172
		30 m x 0.32 mm 5ms, df = 0.25 µm	157
524.2*	Measurement of purgeable organic compounds in water by purge and trap capillary column GC/MS	30 m x 0.25 mm 624, df = 1.4 µm	169
		30 m x 0.53 mm 624, df = 3.0 µm	169
		75 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 5ms, df = 0.1 µm	157
525*	Determination of organic compounds in drinking water by liquid-solid extraction and capillary column GC/MS	30 m x 0.32 mm 5, df = 0.25 µm	154
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
551	Chlorination Solvents & Disinfection By-Products in Drinking Water by Liquid-Liquid Extraction	30 m x 0.32 mm 1, df = 1 µm	158
		30 m x 0.32 mm 210, df = 0.5 µm	167
552/552.1	Haloacetic Acids & Dalapon in Drinking Water by Ion Exchange Liquid-Solid Extraction & GC with ECD	30 m x 0.32 mm 1701, df = 0.25 µm	172
		30 m x 0.32 mm 210, df = 0.5 µm	167

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EPA Waste Water Test Method			
Method	Description	Vertical Recommend	Page
601	Purgeable halocarbons	30 m x 0.53 mm 624, df = 3.0 µm	169
		75 m x 0.53 mm 624, df = 3.0 µm	169
		105 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.0 µm	169
602	Purgeable aromatics	30 m x 0.53 mm 624, df = 3.0 µm	169
		105 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.0 µm	169
603	Acrolein and acrylonitrile	30 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.0 µm	169
604/605	Phenols & benzidines	30 m x 0.25 mm 5ms, df = 0.25 µm	157
606	Phthalate esters	15 m x 0.53 mm 1, df = 1.5 µm	148
		15 m x 0.53 mm 5, df = 1.2 µm	153
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
607	Nitrosamines	30 m x 0.53 mm 5, df = 1.5 µm	154
		30 m x 0.25 mm 5ms, df = 0.5 µm	157
608	Organochlorine pesticides and PCBs	50 m x 0.25 mm 5ms, df = 0.1 µm	157
609	Nitroaromatics and isophorone	30 m x 0.53 mm 5, df = 1.5 µm	154
		30 m x 0.25 mm 5ms, df = 0.5 µm	157
610	Polycyclic Aromatic Hydrocarbons	30 m x 0.32 mm 5, df = 0.25 µm	154
		30 m x 0.32 mm 5ms, df = 0.10 µm	157
611	Haloethers	15 m x 0.53 mm 5, df = 1.5 µm	153
		30 m x 0.25 mm 5ms, df = 0.5 µm	157
612*	Chlorinated hydrocarbons	30 m x 0.32 mm 5, df = 1.0 µm	154
		30 m x 0.25 mm 5ms, df = 1.0 µm	147
613	2,3,7,8-tetrachlorodibenzo-p-dioxin	50 m x 0.25 mm Silar90, df = 0.2 µm	179
		60 m x 0.25 mm 5ms, df = 0.1 µm	157
615	Chlorinated herbicides	30 m x 0.32 mm 1, df = 0.25 µm	148
		30 m x 0.53 mm 1701, df = 1.0 µm	173
		30 m x 0.25 mm 1701, df = 0.25 µm	172
619	Triazine herbicides	30 m x 0.53 mm 17, df = 1.0 µm	159
		30 m x 0.53 mm 5, df = 1.0 µm	154
		30 m x 0.25 mm 17ms, df = 0.5 µm	160
624	Purgeables	30 m x 0.53 mm 624, df = 3.0 µm	169
		75 m x 0.53 mm 624, df = 3.0 µm	169
		105 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
625	Base/neutrals and acids	30 m x 0.32 mm 5ms, df = 0.25 µm	157
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
680	Pesticides and PCBs in water and soil/sediment	30 m x 0.32 mm 5, df = 0.25 µm	154
		30 m x 0.32 mm 5ms, df = 0.25 µm	157
1618	Organophosphorus Pesticides, Organohalide Pesticides, Phenoxyacid Herbicides	30 m x 0.53 mm 1, df = 1.2 µm	148
		30 m x 0.53 mm 1701, df = 1.2 µm	173
1624	Volatile org. comp. by isotope dilution GC/MS	30 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
1625	Semivolatile org. comp. by isotope dilution	30 m x 0.25 mm 5, df = 0.25 µm	154
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
1653	Chlorinated phenols in waste water by in-situ MS acylation and GC low bleed/MS	30 m x 0.32 mm 5, df = 0.25 µm	154
		30 m x 0.32 mm 5ms, df = 0.25 µm	157

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EPA Solid Waste Test Method			
Method	Description	Vertical® Recommend	Page
8010	Halogenated volatile organics	75 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
8015	Non-halogenated volatile organics	30 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
8020/8021	Aromatic volatile organics	30 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
8030/8031	Acrolein, acrylonitrile, acetonitrile	30 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.4 µm	169
8040/8041	Phenols	30 m x 0.53 mm 5, df = 1.5 µm	154
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
8060/8061	Phthalate esters	15 m x 0.53 mm 1, df = 1.5 µm	148
8080	Organochlorine pesticides and PCBs	30 m x 0.53 mm 5, df = 1.5 µm	154
		30 m x 0.25 mm 5ms, df = 0.5 µm	157
8081/8082	Organochlorine pesticides and PCBs as Arochlor	30 m x 0.53 mm 5, df = 1.5 µm	154
		30 m x 0.53 mm 1701, df = 1.0 µm	173
8090/8091	Nitroaromatics and cyclic ketones	30 m x 0.53 mm 5, df = 1.5 µm	154
		30 m x 0.25 mm 5ms, df = 0.5 µm	157
8100	Polynuclear aromatic hydrocarbons	30 m x 0.32 mm 5, df = 0.25 µm	154
		30 m x 0.32 mm 5ms, df = 0.25 µm	157
8120/8121	Chlorinated hydrocarbons	30 m x 0.32 mm 1, df = 1.0 µm	148
		30 m x 0.32 mm 1ms, df = 1.0 µm	151
8140	Organophosphorus pesticides	30 m x 0.53 mm 1, df = 1.5 µm	148
		30 m x 0.53 mm 1701, df = 1.5 µm	173
		30 m x 0.25 mm 1ms, df = 0.25 µm	151
8141	Organophosphorus pesticides	15 m x 0.53 mm 5, df = 1.5 µm	153
		15 m x 0.25 mm 5ms, df = 0.25 µm	157
8150/8151	Chlorinated herbicides	25 m x 0.53 mm 5, df = 1.0 µm	154
		30 m x 0.53 mm 1701, df = 1.0 µm	173
		30 m x 0.25 mm 5ms, df = 0.25 µm	157
8240	GC/MS for volatile organics	30 m x 0.53 mm 624, df = 3.0 µm	169
		75 m x 0.53 mm 624, df = 3.0 µm	169
		105 m x 0.53 mm 624, df = 3.0 µm	169
		30 m x 0.25 mm 624, df = 1.0 µm	169
8250	GC/MS for semi-volatile organics	30 m x 0.25 mm 5ms, df = 0.5 µm	157
		30 m x 0.53 mm 624, df = 3.0 µm	169
		75 m x 0.53 mm 624, df = 3.0 µm	169
		105 m x 0.53 mm 624, df = 3.0 µm	169
8260	GC/MS method for volatile organics capillary techniques	30 m x 0.25 mm 624, df = 1.0 µm	169
		30 m x 0.53 mm 624, df = 3.0 µm	169
		75 m x 0.53 mm 624, df = 3.0 µm	169
8270	GC/MS method for semivolatile organics: capillary techniques	30 m x 0.25 mm 5, df = 1.0 µm	154
		30 m x 0.25 mm 5ms, df = 1.0 µm	157
8280	Analysis of polychlorinated dibenzofurans	30 m x 0.25 mm 5, df = 0.25 µm	154
		60 m x 0.25 mm 5ms, df = 0.1 µm	157
		50 m x 0.25 mm Silar90, df = 0.2 µm	179

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