



Holding Times and Containers for Water/Aqueous Samples

General Chemistry	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
Alkalinity	EPA 310.1	14	100	125 ml HDPE	4°C
Biochemical Oxygen Demand (BOD)	EPA 405.1/SM 5210B	24 hours	300	1 L HDPE	4°C
Bromide	EPA 300.0	28	20	125 ml HDPE	4°C
Chemical Oxygen Demand (COD)	EPA 410.4/SM 5220D	28	20	250 ml glass	H ₂ SO ₄
Chloride	EPA 300.0	28	50	125 ml HDPE	4°C
Chlorine, Total Residual	SM 4500-Cl	ASAP (24 hours)	100	125 ml HDPE	4°C
Chromium VI (Hexavalent Chromium)	EPA 7196A/7199	24 hours	100	125 ml HDPE	4°C
Cyanide, Amenable	EPA335.1	14	500	500ml HDPE	NaOH
Cyanide, Total	EPA 335.2	14	500	500 ml HDPE	NaOH
Fluoride	EPA 300.0	28	50	125 ml HDPE	4°C
Hardness, Total	SM2340C	180	100	250 ml HDPE	HNO ₃
Ignitability (Flashpoint)	EPA 1010	14	150	125 ml HDPE	4°C
Nitrogen, Ammonia (NH ₃)	EPA 350.2	28	500	1 L amber glass	H ₂ SO ₄
Nitrogen, Nitrate (NO ₃)	EPA 300.0	48 hours	50	125 ml HDPE	4°C
Nitrogen, Nitrite (NO ₂)	EPA 300.0	48 hours	50	125 ml HDPE	4°C
Nitrogen, Total Kjeldahl (TKN)	EPA 351.3	28	500	1 L amber glass	H ₂ SO ₄
Nitrogen, Total	TKN / NO ₃ + NO ₂	48 hours	500/50	1 L amber glass/125 ml HDPE	H ₂ SO ₄ /4°C
Oil and Grease	EPA 413.1/1664	28	1000	1 L amber glass	H ₂ SO ₄
pH	EPA 150.1	ASAP (24 hours)	50	125 ml HDPE	4°C
Phenolics, Total	EPA 420.1	28	200	500 ml amber glass	H ₂ SO ₄
Phosphate, Ortho	EPA 300.0	48 hours	50	125 ml HDPE	4°C
Phosphate, Total	EPA 365.3	28	50	125 ml HDPE	4°C
Phosphorus, Dissolved	EPA 365.3	28	100	125 ml HDPE	4°C
Phosphorus, Total	EPA 365.3	28	100	125 ml glass	H ₂ SO ₄
Solids, Total Dissolved (TDS)	EPA 160.1	7	250	250 ml HDPE	4°C
Solids, Total Suspended (TSS)	EPA 160.2	7	250	250 ml HDPE	4°C
Solids, Total (TS)	EPA 160.3	7	200	500 ml HDPE	4°C
Solids, Volatile (VS)	EPA 160.4	7	200	500 ml HDPE	4°C
Solids, Settleable (SS)	EPA 160.5	48 hours	1000	1 L HDPE	4°C
Solids, Volatile Suspended (VSS)	EPA 160.2/160.4	7	200	500 ml HDPE	4°C
Specific Conductance	EPA 120.1	ASAP (24 hours)	50	125 ml HDPE	4°C
Sulfate	EPA 300.0	28	50	125 ml HDPE	4°C
Sulfide, Total	EPA 9034	7	50	250 ml HDPE	ZnAc ₂ & NaOH
Surfactants (MBAS)	EPA 425.1	48 hours	200	500 ml HDPE	4°C
Total Organic Carbon (TOC)	EPA 415.1	28	150	250 ml glass	H ₂ SO ₄
Turbidity	EPA 180.1	48 hours	100	125 ml HDPE	4°C

Metals	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
Mercury	EPA 7470A	28	100	250 ml HDPE	HNO ₃
ICP Metals	EPA 6010B/200.7	180	100	250 ml HDPE	HNO ₃
ICP/MS Metals	EPA 6020/200.8	180	100	250 ml HDPE	Ultra HNO ₃

Semi-Volatile Organics	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
EDB/DBCP	EPA 504.1	14	40	3-40 ml VOA vials	Na ₂ S ₂ O ₃
Herbicides, Chlorinated	EPA 8151A	7*	1000	1 L amber glass	4°C
PCBs	EPA 8082/608	7*	1000	1 L amber glass	4°C
Pesticides, Organochlorine	EPA 8081A/608	7*	1000	1 L amber glass	4°C
Pesticides, Organophosphorus	EPA 8141A	7*	1000	1 L amber glass	4°C
Phenols	EPA 8270C	7*	1000	1 L amber glass	4°C
PAHs	EPA 8270C	7*	1000	1 L amber glass	4°C
SVOCs (BNAs)	EPA 8270C/625	7*	1000	1 L amber glass	4°C

* 7 days for extraction; 40 days after extraction for analysis.

Volatile Organics	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
Purgeable Halocarbons/Aromatics	EPA 8260(8021B list)	14	40	3-40 ml VOA vials	HCl
VOCs	EPA 8260B/624	14	40	3-40 ml VOA vials	HCl
VOCs (drinking water)	EPA 524.2	14	40	3-40 ml VOA vials	Ascorbic Acid

LUFT	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
TPH(d)	EPA 8015M/GC/MS	14	1000	1 L amber glass	4°C
TPH(g)/BTEX/MTBE	EPA 8015M/8021B/GC/MS	14	40	3-40 ml VOA vials	HCl
TPH-CC	EPA 8015M/GC/MS	14	1000	1 L amber glass	4°C
TRPH	EPA 418.1	28	1000	1 L amber glass	H ₂ SO ₄

Natural Attenuation Parameters	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
Dissolved Oxygen	SM 4500-O G	8 hour	250	500 ml amber glass	4°C
Ferrous Iron	SM 3500-Fe D	24 hours	50	125 ml HDPE	4°C
Redox Potential	ASTM D-1498	24 hours	50	125 ml HDPE	4°C
Methane in Water	RSK 175M	7	125	2-125 ml amber glass	HCl

Aquatic Toxicity/Microbiology	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
96-hour Aquatic Toxicity, Haz Waste	Dept. Fish & Game	7	100	250 ml HDPE	4°C
96-hour Aquatic Toxicity, Effluent	EPA 600/4-85/013	36 hours	5 gallons	5 gallon cubitainer	4°C

CA Emergent Chemicals	Method	Holding Time (days)	Min Volume (mls)	Container	Preservation
NDMA	EPA 1625C(M)	7	1000	1 L amber glass	Na ₂ S ₂ O ₃
Chromium VI	EPA 218.6	24 hours	200	250 ml HDPE	4°C
1,4-Dioxane	GC/MS Isotope Dilution	7	1000	1 L amber glass	4°C
Perchlorate	EPA 314.0	28	50	125 ml HDPE	4°C
1,2,3-TCP	EPA 8260B	14	40	3-40 ml VOA vials	HCl

Analytical Testing
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Holding Times and Containers for Soil/Solid Samples

General Chemistry	Method	Holding Time (days)	Min Mass (g)	Container	Preservation
Alkalinity	SM2320B	ASAP (14 days)	20	4 oz glass jar w/Teflon lid	4°C
Biochemical Oxygen Demand (BOD)	EPA 405.1M	48 hours	30	4 oz glass jar w/Teflon lid	4°C
Bromide	EPA 300.0M	28	10	4 oz glass jar w/Teflon lid	4°C
Chemical Oxygen Demand (COD)	EPA 410.4M	28	10	4 oz glass jar w/Teflon lid	4°C
Chloride	EPA 300.0M	28	10	4 oz glass jar w/Teflon lid	4°C
Chromium IV (Hexavalent Chromium)	EPA 7196A/3060A	30	10	4 oz glass jar w/Teflon lid	4°C
Chromium IV (Hexavalent Chromium)	EPA 7199/3060A	30	10	4 oz glass jar w/Teflon lid	4°C
Cyanide, Amenable	EPA 9010B/9014	14	40	4 oz glass jar w/Teflon lid	4°C
Cyanide, Reactive	SW 846 Ch. 7	14	20	4 oz glass jar w/Teflon lid	4°C
Cyanide, Total	EPA 9010B/9014	14	20	4 oz glass jar w/Teflon lid	4°C
Fluoride	EPA 300.0M	28	10	4 oz glass jar w/Teflon lid	4°C
Ignitability (Flashpoint)	EPA 1010	14	100	4 oz glass jar w/Teflon lid	4°C
Moisture Content	ASTM D2216	ASAP (10 days)	20	4 oz glass jar w/Teflon lid	4°C
Nitrogen, Ammonia	EPA 350.2M	28	20	4 oz glass jar w/Teflon lid	4°C
Nitrogen, Nitrate	EPA 300.0M	48 hours	10	4 oz glass jar w/Teflon lid	4°C
Nitrogen, Nitrite	EPA 300.0M	48 hours	10	4 oz glass jar w/Teflon lid	4°C
Nitrogen, Organic	SM 4500-NH3/4500-NorgB	28	10	4 oz glass jar w/Teflon lid	4°C
Nitrogen, Total Kjeldahl (TKN)	EPA 351.3M	28	10	4 oz glass jar w/Teflon lid	4°C
Nitrogen, Total	various	48 hours	30	4 oz glass jar w/Teflon lid	4°C
Oil and Grease	EPA 413.1M/1664M	28	30	4 oz glass jar w/Teflon lid	4°C
pH	EPA 9045B	ASAP (24 hours)	20	4 oz glass jar w/Teflon lid	4°C
Phenolics, Total	EPA 9065	28	20	4 oz glass jar w/Teflon lid	4°C
Phosphate, Ortho	EPA 300.0M	48 hours	10	4 oz glass jar w/Teflon lid	4°C
Phosphate, Total	EPA 365.3M	28	20	4 oz glass jar w/Teflon lid	4°C
Phosphorus, Total	EPA 365.3M	28	20	4 oz glass jar w/Teflon lid	4°C
Specific Conductance	EPA 9050A	24 hours	20	4 oz glass jar w/Teflon lid	4°C
Sulfate	EPA 300.0M/9038	28	20	4 oz glass jar w/Teflon lid	4°C
Sulfide, Reactive	SW 846 Ch. 7	7	20	4 oz glass jar w/Teflon lid	4°C
Sulfide, Total	EPA 376.2M	7	20	4 oz glass jar w/Teflon lid	4°C
Surfactants (MBAS)	EPA 425.1M	48 hours	20	4 oz glass jar w/Teflon lid	4°C
Total Organic Carbon (TOC)	EPA 9060	28	2	4 oz glass jar w/Teflon lid	4°C

Metals	Method	Holding Time (days)	Min Mass (g)	Container	Preservation
Mercury	EPA 7471A	28	1	4 oz glass jar w/Teflon lid	4°C
Organic Lead	DHS-LUFT	14	10	4 oz glass jar w/Teflon lid	4°C
ICP Metals	EPA 6010B	180	2	4 oz glass jar w/Teflon lid	4°C
ICP/MS Metals	EPA 6020	180	2	4 oz glass jar w/Teflon lid	4°C

Semi-Volatile Organics	Method	Holding Time (days)	Min Mass (g)	Container	Preservation
Herbicides, Chlorinated	EPA 8151A	14*	50	4 oz glass jar w/Teflon lid	4°C
PCBs	EPA 8082	14*	20	4 oz glass jar w/Teflon lid	4°C
Pesticides, Organochlorine	EPA 8081A	14*	20	4 oz glass jar w/Teflon lid	4°C
Pesticides, Organophosphorus	EPA 8141A	14*	20	4 oz glass jar w/Teflon lid	4°C
Phenols	EPA 8270C	14*	20	4 oz glass jar w/Teflon lid	4°C
PAHs	EPA 8270C	14*	20	4 oz glass jar w/Teflon lid	4°C
SVOCs (BNAs)	EPA 8270C	14*	20	4 oz glass jar w/Teflon lid	4°C

* 14 days for extraction; 40 days after extraction for analysis.

Volatile Organics	Method	Holding Time (days)	Min Mass (g)	Container	Preservation
Purgeable Halocarbons/Aromatics	EPA 8260(8021B list)	14	10	4 oz glass jar w/Teflon lid	4°C
VOCs	EPA 8260B	14	10	4 oz glass jar w/Teflon lid	4°C
VOCs (EnCORE)	EPA 5035/8260B	2	3/sample	3 EnCORE sampler	4°C

LUFT	Method	Holding Time (days)	Min Mass (g)	Container	Preservation
TPH(d)	EPA 8015M/GC/MS	14	10	4 oz glass jar w/Teflon lid	4°C
TPH(g)/BTEX/MTBE	EPA 8015M/8021B/GC/MS	14	5	4 oz glass jar w/Teflon lid	4°C
TPH-CC	EPA 8015M/GC/MS	14	10	4 oz glass jar w/Teflon lid	4°C
TRPH	EPA 418.1	28	5	4 oz glass jar w/Teflon lid	4°C
TPH(g) (Encore)	EPA 5035/8015M	2	2/sample	2 EnCORE sampler	4°C

TCLP/SPLP	Method	TCLP/SPLP Ext. Holding Time (days)	Method Ext. After TCLP/SPLP Ext. (days)	Holding Time After Ext. (days)
Mercury	EPA 1311/1312/7470A	28	N/A	28
Metals	EPA 1311/1312/6010B/6020	180	N/A	180
SVOCs	EPA 1311/1312/8270C	14	14	40
VOCs	EPA 1311/1312/8260B	14	N/A	14

Holding Times and Containers for Air/Vapor Samples

Analysis	Method	Holding Time (days)	Min Mass (L)	Container	Preservation
Fixed Gases	ATM D1946	3/14	1/5	Tedlar Bag/Summa Canister	Keep out of sunlight
Hydrocarbon Speciation	ASTM D2820	3/14	1/5	Tedlar Bag/Summa Canister	Keep out of sunlight
Hydrogen Sulfide (H ₂ S)	GC/FPD	24 hours	1/5	Tedlar Bag/Silica Canister	Keep out of sunlight
Landfill Gases (NMOCs)	EPA 25C/SCAQMD 25.1	3/14	1/5	Tedlar Bag/Summa Canister	N/A
TPH(g)	TO-3	3/14	1/5	Tedlar Bag/Summa Canister	Keep out of sunlight
VOCs	EPA TO-14A/TO-15	3/14	1/5	Tedlar Bag/Summa Canister	N/A



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