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Note 1: Refer to 40 CFR 136 Table II – Required Containers, Preservation Techniques, and Holding Times – and the specific "Sample Collection, Preservation, and Handling" section of the approved methods.

Note 2: Where "Cool to ≤ 6°C" is stated, samples are not to be frozen. The preservation temperature does not apply to samples that are analyzed immediately (less than 15 minutes).

Note 3: For metals tests, an aqueous sample may be collected and shipped without acid preservation. However, acid must be added at least 24 hours before analysis to dissolve any metals that adsorb to the container walls.

ANALYTE	CONTAINER P=Plastic, G=Glass FP=Teflon	PRESERVATION	MAXIMUM HOLDING TIME
Inorganic Tests:			
Acidity	P,FP,G	Separate bottle completely filled to the exclusion of air, Cool to ≤ 6°C	14 days
Alkalinity	P,FP,G	Separate bottle completely filled to the exclusion of air, Cool to ≤ 6°C	14 days
Aluminum	P,FP,G	HNO_3 to pH<2	6 months
Ammonia	P,FP,G	Cool to ≤ 6°C, H_2SO_4 to pH<2	28 days
Antimony	P,FP,G	HNO_3 to pH<2	6 months
Arsenic	P,FP,G	HNO_3 to pH<2	6 months
Barium	P,FP,G	HNO_3 to pH<2	6 months
Beryllium	P,FP,G	HNO_3 to pH<2	6 months
Biochemical Oxygen Demand	P,FP,G	Cool to ≤ 6°C	48 hours
Boron	P,FP,Quartz	HNO_3 to pH<2	6 months
Bromide	P,FP,G	None	28 days
Biochemical Oxygen Demand, Carbonaceous	P,FP,G	Cool to ≤ 6°C	48 hours
Cadmium	P,FP,G	HNO_3 to pH<2	6 months
Calcium	P,FP,G	HNO_3 to pH<2	6 months
Chemical Oxygen Demand	P,FP,G	Cool to ≤ 6°C, H_2SO_4 to pH<2	28 days
Chloride	P,FP,G	None	28 days

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ANALYTE	CONTAINER P=Plastic, G=Glass FP=Teflon	PRESERVATION	MAXIMUM HOLDING TIME
Chlorine Residual	P,G	None	Analyze within 15 minutes
Chromium	P,FP,G	HNO_3 to pH<2	6 months
Chromium VI	P,FP,G	Cool to ≤ 6°C	24 hours
		Plus pH 9.3-9.7 with $(NH_4)_2SO_4$	28 days
Cobalt	P,FP,G	HNO_3 to pH<2	6 months
Color	P,FP,G	Cool to ≤ 6°C	48 hours
Copper	P,FP,G	HNO_3 to pH<2	6 months
Cyanide, Total and Amendable, to chlorination	P,FP,G	Cool to ≤ 6°C, NaOH to pH>12 (if no sulfide present)	48 hours
		Plus mitigation treatment (if interferences present)	14 days
Fluoride	P	None	28 days
Gold	P,FP,G	HNO_3 to pH<2	6 months
Hardness	P,FP,G	HNO_3 or H_2SO_4 to pH<2	6 months
Hydrogen Ion (pH)	P,FP,G	None	Analyze within 15 minutes
Iron	P,FP,G	HNO_3 to pH<2	6 months
Kjeldahl and Organic Nitrogen	P,FP,G	Cool to ≤ 6°C, H_2SO_4 to pH<2	28 days
Lead	P,FP,G	HNO_3 to pH<2	6 months
Magnesium	P,FP,G	HNO_3 to pH<2	6 months
Manganese	P,FP,G	HNO_3 to pH<2	6 months
Mercury	P,FP,G	HNO_3 to pH<2	28 days
Molybdenum	P,FP,G	HNO_3 to pH<2	6 months
Nickel	P,FP,G	HNO_3 to pH<2	6 months
Nitrate	P,FP,G	Cool to ≤ 6°C	48 hours
Nitrate-Nitrite	**P,FP,G**	**Cool to ≤ 6°C, H_2SO_4 to pH<2**	**28 days**
Nitrite	P,FP,G	Cool to ≤ 6°C	48 hours
Oil and Grease	G	Cool to ≤ 6°C, HCl or H_2SO_4 to pH<2	28 days
Organic Carbon	P,FP,G	Cool to ≤ 6°C, HCl, H_3PO_4, or H_2SO_4 to pH<2	28 days

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ANALYTE	CONTAINER P=Plastic, G=Glass FP=Teflon	PRESERVATION	MAXIMUM HOLDING TIME
Orthophosphate	P,FP,G	Filter within 15 minutes, Cool to ≤ 6°C	48 hours
Palladium	P,FP,G	HNO_3 to pH<2	6 months
Phenols	G	Cool to ≤ 6°C H_2SO_4 to pH<2	28 days
Phosphorus, Total	P,FP,G	Cool to ≤ 6°C, H_2SO_4 to pH<2	28 days
Platinum	P,FP,G	HNO_3 to pH<2	6 months
Residue, Total	P,FP,G	Cool to ≤ 6°C	7 days
Residue, Filterable	P,FP,G	Cool to ≤ 6°C	7 days
Residue, Non-Filterable	P,FP,G	Cool to ≤ 6°C	7 days
Residue, Settleable	P,FP,G	Cool to ≤ 6°C	48 hrs
Silica	P,Quartz	Cool to ≤ 6°C	28 days
Silver	P,FP,G	HNO_3 to pH<2	6 months
Specific Conductance	P,FP,G	Cool to ≤ 6°C	28 days
Sulfate	P,FP,G	Cool to ≤ 6°C	28 days
Sulfide	P,FP,G	Cool to ≤ 6°C, add zinc acetate plus NaOH to pH>9	7 days
Surfactants	P,FP,G	Cool to ≤ 6°C	48 hours
Temperature	P,FP,G	None	Analyze within 15 minutes
Thallium	P,FP,G	HNO_3 to pH<2	6 months
Tin	P,FP,G	HNO_3 to pH<2	6 months
Titanium	P,FP,G	HNO_3 to pH<2	6 months
Turbidity	P,FP,G	Cool to ≤ 6°C	48 hours
Vanadium	P,FP,G	HNO_3 to pH<2	6 months
Organic Tests:* **			
Purgeable Halocarbons plus Benzyl Chloride and Epichlorohydrin	G, FP-lined septum	Cool to ≤ 6°C, 0.008%$Na_2S_2O_3$	14 days

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ANALYTE	CONTAINER P=Plastic, G=Glass FP=Teflon	PRESERVATION	MAXIMUM HOLDING TIME
Purgeable Aromatics	G, FP-lined septum	Cool to ≤ 6°C, 0.008%$Na_2S_2O_3$ for residual chlorine, HCl to pH<2	14 days (7 days if not preserved to pH <2)
Acrolein and Acrylonitrile	G, FP-lined septum	Cool to ≤ 6°C, 0.008%$Na_2S_2O_3$ for residual chlorine, pH to 4-5 for acrolein	14 days (3 days for acrolein if not adjusted to pH 4-5)
Phenols	G, FP-lined cap	Cool to ≤ 6°C, 0.008% $Na_2S_2O_3$ for residual chlorine	7 days until extraction 40 days after extraction
Benzidines	G, FP-lined cap	Cool to ≤ 6°C, 0.008% $Na_2S_2O_3$ for residual chlorine	7 days until extraction 7 days after extraction if stored under inert gas
Phthalate Esters	G, FP-lined cap	Cool to ≤ 6°C	7 days until extraction 40 days after extraction
Nitrosamines	G, FP-lined cap	Cool to ≤ 6°C, store in dark, 0.008% $Na_2S_2O_3$ for residual chlorine. For diphenylnitrosamine add 0.008% $Na_2S_20_3$ and adjust pH 7-10 with NaOH within 24 hours of sampling	7 days until extraction 40 days after extraction
Nitroaromatics and Isophorone	G, FP-lined cap	Cool to ≤ 6°C, 0.008% $Na_2S_2O_3$ for residual chlorine, store in dark	7 days until extraction 40 days after extraction
PCBs	G, FP-lined cap	Cool to ≤ 6°C	1 year until extraction 1 year after extraction

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ANALYTE	CONTAINER P=Plastic, G=Glass FP=Teflon	PRESERVATION	MAXIMUM HOLDING TIME
Pesticides	G, FP-lined cap	Cool to ≤ 6°C	72 hours
		Cool to ≤ 6°C, pH 5-9, 0.008% $Na_2S_2O_3$ for residual chlorine if aldrin is to be determined	7 days until extraction 40 days after extraction
Polynuclear Aromatic Hydrocarbons	G, FP-lined cap	Cool to ≤ 6°C, 0.008%$Na_2S_2O_3$ for residual chlorine, store in dark	7 days until extraction 40 days after extraction
Haloethers	G, FP-lined cap	Cool to ≤ 6°C, 0.008%$Na_2S_2O_3$ for residual chlorine	7 days until extraction 40 days after extraction
Chlorinated Hydrocarbons	G, FP-lined cap	Cool to ≤ 6°C	7 days until extraction, 40 days after extraction
2,3,7,8-Tetrachlorodi-benzo-p-Dioxin	G, FP-lined cap	Cool to ≤ 6°C, 0.008% $Na_2S_2O_3$ for residual chlorine	7 days until extraction, 40 days after extraction

***When the extractable analytes of concern fall within a single chemical category, the specified preservative and maximum holding times should be observed to safeguard sample integrity. When the analytes fall within two or more chemical categories, the sample may be preserved by cooling to ≤ 6°C, reducing residual chlorine with 0.008% $Na_2S_2O_3$, storing in the dark, and adjusting the pH to 6-9; samples preserved in this manner may be held for 7 days before extraction and for 40 days after extraction. Exceptions to this procedure are noted in footnotes to 40 CFR 136 Table II and the approved methods.

Radiological Tests:			
Gross Alpha	P,FP,G	HCl or HNO_3 to pH<2	6 months
Gross Beta	P,FP,G	HCl or HNO_3 to pH<2	6 months
Strontium-89	P,FP,G	HCl or HNO_3 to pH<2	6 months
Strontium-90	P,FP,G	HCl or HNO_3 to pH<2	6 months
Radium-226	P,FP,G	HCl or HNO_3 to pH<2	6 months
Radium-228	P,FP,G	HCl or HNO_3 to pH<2	6 months
Radon-222	G, FP-lined septum	Cool to ≤ °C	4 days
Radioactive Cesium	P,FP,G	HCl to pH<2	6 months
Iodine-131	P,FP,G	None	7 days
Tritium	G	None	6 months

ANALYTE	CONTAINER P=Plastic, G=Glass FP=Teflon	PRESERVATION	MAXIMUM HOLDING TIME
Uranium	P,FP,G	HCl or HNO_3 to pH<2	6 months
Photon Emitters	P,FP,G	HCl or HNO_3 to pH<2	6 months
Microscopical Tests:			
Asbestos	P,FP	Cool to ≤ 6°C	48 hours
		20 mg/l Hg as $HgCl_2$	6 months