

## Sample Containers, Preservation and Holding Times

Parameter/Method	Preservative	Sample Holding Time	Suggested Sample Size	Type of Container	Comments
<b>Metals</b> (except Hg)	HNO <sub>3</sub> to pH <2 For dissolved metals, filter immediately.	6 months	1 L	Plastic or glass rinsed with 1 + 1 HNO <sub>3</sub>	
<b>Alkalinity</b>	Cool, 4°C	24 hours recommend 14 days regulatory (6 hours if Biol. Activity)	200 mL	Polyethylene or Borosilicate glass	Fill container completely and cap tightly . Avoid sample agitation and prolonged exposure to air.
<b>Ammonia</b>	4°C + H <sub>2</sub> SO <sub>4</sub> pH<2 DECHLOR	28 days	500 mL	Plastic or glass	
<b>Biochemical Oxygen Demand and CBOD</b>	Analyze 2 hours or 4°C.	6 hours recommend 48 hours regulatory	1000 mL	Plastic or glass	
<b>Chemical Oxygen Demand</b>	H <sub>2</sub> SO <sub>4</sub> pH<2 and cooled to 4°C	Analyze ASAP or add H <sub>2</sub> SO <sub>4</sub> to pH <2, + Cool to 4°C	100 mL	Plastic or glass	
<b>Chlorine</b>	None, analyze immediately	15 minutes	500 mL	Plastic or glass	
<b>Color</b>	Cool, 4°C	48 hours	500 mL	Plastic or glass	Warm samples to room temperature before measurement
<b>Copper</b>	Concentrated nitric acid (2 mL/L) pH <2	6 months at room temperature	1 L	Acid-washed glass or plastic	Adjust pH to 4-6 with 8N KOH before analysis. Do not exceed pH 6.
<b>Conductivity</b>	Cool, 4°C	28 days	500 mL	Plastic or glass	
<b>Dissolved Oxygen</b>	None, analyze immediately	15 min/ In situ	300 mL	Glass or BOD bottle	
<b>Fecal Coliform &amp; E. coli</b>	4°C (1 hour) + 10% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (0.1 mL)	6 hours and 2 hours to process	125 mL	Non reactive borosilicate glass or plastic	Bottles – cleaned & rinsed carefully, last rinse with DI, sterilize. Leave air space
<b>Hardness</b>	Add HNO <sub>3</sub> or H <sub>2</sub> SO <sub>4</sub> to pH <2	6 months	100 mL	Plastic or glass	
<b>Iron</b>	None if analyzing immediately. Conc. nitric acid (2 mL/L) to pH <2 if not.	6 months at room temperature	1 L	Acid-washed glass or plastic	Adjust pH to 3-5 with 5.0N NaOH before analysis. Correct the test result for volume additions.
<b>Lead</b>	Conc. nitric acid (2 mL/L) to pH <2	6 months at room temperature	1 L	Acid-washed glass or plastic	
<b>Nitrate</b> (chlorinated)	Cool, 4°C, non-acidified	28 days	100 mL	Plastic or glass	
<b>Nitrate</b> (non-chlorinated)	Cool, 4°C, non-acidified	48 hours	100 mL	Plastic or glass	Analyze ASAP
<b>Nitrite</b>	Cool, 4°C	48 hours	100 mL	Plastic or glass	Analyze ASAP, Store only if necessary
<b>Nitrate + Nitrite</b>	4°C + H <sub>2</sub> SO <sub>4</sub> pH<2	28 days	200 mL	Plastic or glass	
<b>Odor</b>	Cool, 4°C	6 hours	500 mL	Glass	Analyze ASAP
<b>Oil and Grease</b>	4°C + H <sub>2</sub> SO <sub>4</sub> /HCl pH<2	28 days	1000 mL	Glass, wide mouth, calibrated	
<b>PH</b>	None	15 minutes	50 mL	Plastic or glass	Analyze immediately
<b>Orthophosphate</b>	Filter, Cool, 4°C	48 hours	100 mL	Glass rinsed with 1 + 1 HNO <sub>3</sub>	Warm samples to 15-25°C before analysis. For dissolved phosph., filter immediately

<b>Solids (TS)</b>	Cool, 4°C	7 days	200 mL	Plastic or glass	
<b>Sulfate</b>	Cool, 4°C	28 days	100 mL	Plastic or glass	
<b>Temperature</b>	None	Immersion Stab.	1 L	Plastic or glass	Analyze immediately
<b>Total Dissolved Solids</b>	Cool, 4°C	5 days from receipt at laboratory	200 mL	Plastic or glass	
<b>Total Kjeldahl Nitrogen</b>	4°C + H <sub>2</sub> SO <sub>4</sub> pH<2 DECHLOR	7 days recommended 28 days regulatory	500 mL	Plastic or glass	
<b>Total Phosphorus</b>	4°C + H <sub>2</sub> SO <sub>4</sub> pH<2	28 days	100	Plastic or glass	Warm samples to 15-25°C and neutralize with 5.0 N NaOH before analysis if acid was added. Correct for volume additions.
<b>Total Suspended Solids</b>	Cool, 4°C	7 days	200 mL	Plastic or glass	
<b>Turbidity</b>	Cool, 4°C	24 h. recommended 48 h. regulatory	100 mL	Plastic or glass	Analyze same day, store in dark up to 24 h, Cool

\*\* Information taken from Standard Methods 21<sup>st</sup> Edition: p. 1-33: Table 1060:I.  
*Summary of Special Sampling and Handling Requirements.*