

**The EPA Recommendation for Sampling and Preservation of Water Samples**  
**Table 1**  
 (note 1)

Measurement	Minimum. Volume. Requirements (ml)	Container (note 2)	Preservative (notes 3)	Holding Time (note 4,5)
<b>Inorganics, Non-Metallics</b>				
Acidity	150	P,G	Cool, 4 deg. C	14 Days
Alkalinity	150	P,G	Cool, 4 deg. C	14 Days
Chloride	150	P,G	None Req.	28 Days
Fluoride	100	P,G	None Req.	28 Days
Phosphorus				
Ortho-P, dissolved	150	P,G	Filter on site, Cool, 4 deg. C	48 Hrs.
Hydrolyzable	150	P,G	Cool, 4 deg. C, H2SO4 - pH below 2	28 Days
Total	150	P,G	Cool, 4 deg. C, H2SO4 - pH below 2	28 Days
Total, dissolved	150	P,G	Filter on site, Cool, 4 deg. C, H2SO4 - pH below 2	24 Hrs.
Silica	150	P only	Cool, 4 deg. C	28 Days
Sulfate	150	P,G	Cool, 4 deg. C	28 Days
Sulfide	300	P,G	Cool, 4 deg. C, add 2 ml zinc acetate plus NaOH - pH over 9	7 Days

## Notes

1. More specific instructions for preservation and sampling are found with each procedure as detailed in this manual (**U.S. Environmental Protection Agency. 1983.** Sample preservation. pp.xv-xx. "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020. U.S.E.P.A., Cincinnati, Ohio, USA.) A general discussion on sampling water and industrial wastewater may be found in ASTM, Part 31, p. 72-82 (1976) Method D-3370

2. Plastic (P) or Glass (G). For metals, polyethylene with a polypropylene cap (no liner) is preferred.

3. Sample preservation should be performed immediately upon sample collection. For composite samples each aliquot should be preserved at the time of collection. When use of an automated sampler makes it impossible to preserve each aliquot, then samples may be preserved by maintaining at 4 deg. C until compositing and sample splitting is completed.

**4.** Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still considered valid.