

Table 9.3

Required Containers, Preservation Techniques, and Major Instrumentation for Radiochemical
Measurements in Drinking Water Samples

<u>Parameter</u>	<u>Preservation</u>	Container ("P" means plastic, hard or soft; "G" means <u>glass, hard</u> <u>or soft.</u>)	<u>Instrumentation</u>
Gross alpha	Conc HCl or HNO ₃ to pH 2 ¹	P or G	A or B
Gross beta	Conc HCl or HNO ₃ to pH 2 ¹	P or G	A
Strontium-89	Conc HCl or HNO ₃ to pH 2	P or G	A
Strontium-90	Conc HCl or HNO ₃ to pH 2	P or G	A
Radium-226	Conc HCl or HNO ₃ to pH 2	P or G	A, B or D
Radium-228	Conc HCl or HNO ₃ to pH 2	P or G	A
Cesium-134	Conc HCl or HNO ₃ to pH 2	P or G	A or C
Iodine-131	None	P or G	A
Tritium	None	G	E
Uranium	Conc HCl or HNO ₃ to pH 2	P or G	F
Photonemitters (including Cobalt-60, Ruthenium-106, and Zinc-65)	Conc HCl or HNO ₃ to pH 2	P or G	C
Radon-222	Cool 4 °C	G	E
48-Hour Rapid Gross Alpha	Conc HCl or HNO ₃ to pH 2 ¹	P or G	A
Radium (Total)	Conc HCl or HNO ₃ to pH 2 ¹	P or G	A
Radium-224	Conc HCl or HNO ₃ to pH 2 ¹	P or G	C

Reference for Table 9.3 (Drinking Water Samples)

¹ If HCl is used to acidify samples that are to be analyzed for gross alpha or gross beta activities the acid salts shall be converted to nitrate salts before transfer of the samples to planchets.