Maryland spectral Services

Matrix: Drinking Water

Note: Most aqueous samples require a dedicated container for each test. Additional bottles are recommended to provide QC.					
Method	**Analytes**	**Container**	**Preservative**	**Hold Time**	**Comments**
524.2	VOCs	Two 40-mL VOAs with HCL	HCl, pH<2 Cool 4°C	14 days	Dedicated container
504.1	EDB & DBCP	Two 40-mL VOAs with Na-Thio	Na2S2O3 Cool 4°C	14 days	Dedicated container
300.0DW	Bromide	250-mL Plastic, none	None	28 days	The requested anion that requires the most preservation and the shortest hold time will determine the treatment of the sample.
	Chloride				
	Fluoride				
	Nitrate-N	250-mL Plastic, none	Cool 4°C	48 hours	
	Nitrite-N				
	Sulfate	250-mL Plastic, none	Cool 4°C	28 Days	
200.8DW	Dissolved Metals	Filtered: 250-mL Plastic, HNO3 OR Unfiltered: 250-mL Plastic, none	Filtered on Site: HNO3, pH<2 Filtered in Lab: None	Mercury - 28 days	Dissolved and total cannot be run out of the same container
				All other metals - 6 months	
	Total Metals	250-mL Plastic, HNO3	HNO3, pH<2	Mercury - 28 days	
				All other metals - 6 months	
552.3	HAA5	One 250-mL amber glass with NH4Cl	NH4Cl Cool 4°C	14 days	Dedicated container

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Matrix: Soil & Solid Material

Note: Many soil tests can be run out of the same jar. Typically, we recommend 1 jar per 3 tests unless a dedicated jar is required.

Method	Analytes	Container	Preservative	Hold Time	Comments
8021	Benzene Toluene Ethylbenzene Xylenes MTBE Naphthalene	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
8021-5035	Benzene Toluene Ethylbenzene Xylenes MTBE Naphthalene	5035 Kit- Three 40-mL vials with NaHSO4 One 40-mL vial with methanol One 4-oz glass jar RECOMMENDED: One extra 4-oz	Cool 4°C	14 days	The same kit can be used to run 8021, GRO, and 8260.
8015-GRO	GRO	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
8015-5035-GRO	GRO	5035 Kit- Three 40-mL vials with NaHSO4 One 40-mL vial with methanol One 4-oz glass jar RECOMMENDED: One extra 4-oz	Cool 4°C	14 days	The same kit can be used to run 8021, GRO, and 8260.
8260-VOC	VOCs	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
8260-5035	VOCs	5035 Kit- Three 40-mL vials with NaHSO4 One 40-mL vial with methanol One 4-oz glass jar RECOMMENDED: One extra 4-oz	Cool 4°C	14 days	The same kit can be used to run 8021, GRO, and 8260.
8015-DRO	DRO	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests

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Matrix: Soil & Solid Material

Method	Analytes	Container	Preservative	Hold Time	Comments
8270-SVOC	BNAs PAHs	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
8082	PCBs	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
8081	Chlorinated Pesticides	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
8151	Chlorinated Herbicides	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
1311-TCLP	TCLP-8260	One 4-oz glass soil jar	Cool 4°C	14 days	Dedicated jar
	TCLP-8270 TCLP-8081 TCLP-8151 TCLP-6020	Two 4-oz glass soil jars	Cool 4°C	14 days	Dedicated jars, but all TCLP subtests can use the same 2 jars
9071	Oil & Grease	One 4-oz glass soil jar	Cool 4°C	28 days	Jar can be used for multiple tests
9045	pH	One 4-oz glass soil jar	Cool 4°C	15 minutes	Jar can be used for multiple tests
8015-Glycols	Ethylene glycol Propylene glycol	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
6020	Metals	One 4-oz glass soil jar	Mercury - Cool 4°C All other metals - None	Mercury - 28 Days All other metals - 6 Months	Jar can be used for multiple tests
7199	Hexavalent Chromium	One 4-oz glass soil jar	Cool 4°C	28 days	Jar can be used for multiple tests
1633	PFAS	One HDPE wide-mouth container	Cool 4°C Dark	28 days	Dedicated jar
1030	Ignitability	One 4-oz glass soil jar	Cool 4°C	14 days	Dedicated jar
9095	Paint Filer	One 4-oz glass soil jar	Cool 4°C	30 days	Dedicated jar

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Matrix: Soil & Solid Material

Method	Analytes	Container	Preservative	Hold Time	Comments
300.0	Bromide	One 4-oz glass soil jar	None	28 days	The requested anion that requires the most preservation and the shortest hold time will determine the treatment of the sample.
	Chloride				
	Fluoride				
	Nitrate-N	One 4-oz glass soil jar	Cool 4°C	48 hours	
	Nitrite-N				
	Sulfate	One 4-oz glass soil jar	Cool 4°C	28 days	
9023	EOX	One 4-oz glass soil jar	Cool 4°C	28 days	Jar can be used for multiple tests
ASTM D7511	Total Cyanide	One 4-oz glass soil jar	Cool 4°C	14 days	Jar can be used for multiple tests
1633	PFAS	One 500 mL HDPE plastic, no liner, maximum 3/4 full	Cool 4°C and protected from light	90 days	Smaller plastics may be used, but should not be filled more than 3/4 of the way

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Matrix: Non-potable Water

Note: Most aqueous samples require a dedicated container for each test. Additional bottles are recommended to provide QC.
For waste water samples: If chlorine is expected, additional preservatives may be required.
Many inorganics tests can be performed out of the same bottle if the same preservation is required, but a larger size container may need to be provided.

Method	Analytes	Container	Preservative	Hold Time	Comments
8021	Benzene Toluene Ethylbenzene Xylenes MTBE Naphthalene	Two 40-mL VOAs with HCL	HCl, pH<2 Cool 4°C	14 days	Container can be shared with GRO
8015-GRO	GRO	Two 40-mL VOAs with HCL	HCl, pH<2 Cool 4°C	14 days	Container can be shared with 8021
8015-DRO	DRO	One 1-Liter amber glass, none	Cool 4°C	7 days	Dedicated container
8260-VOC	VOCs	Two 40-mL VOAs with HCL	HCl, pH<2 Cool 4°C	14 days	Dedicated container
624.1	VOCs	Two 40-mL VOAs with HCL OR 40-mL VOAs with Na-Thio if chlorine is expected	HCl, pH<2 Cool 4°C	14 days	Dedicated container
	Acrolein Acryonitrile 2-chloroethyl vinyl ether	Two 40-mL VOAs, none OR 40-mL VOAs with Na-Thio if chlorine is expected	Cool 4°C	3 days	Dedicated container
8270-SVOC	BNAs PAHs	One 1-Liter amber glass, none	Cool 4°C	7 days	SIM cannot be run out of the same container as BNA or PAH
	SIM	One 1-Liter amber glass, none			
8011	EDB & DBCP	Two 40-mL VOAs with Na-Thio	Na2S2O3 Cool 4°C	14 days	Dedicated container

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Matrix: Non-potable Water

Method	Analytes	Container	Preservative	Hold Time	Comments
625.1	SVOCs	One 1-Liter amber glass, none OR 1-Liter amber with Na-Thio if chlorine is expected	Cool 4°C	7 days	Dedicated container
8082	PCBs	One 1-Liter amber glass, none	Cool 4°C	7 days	Container can be shared with 8081
8081	Chlorinated Pesticides	One 1-Liter amber glass, none	Cool 4°C	7 days	Container can be shared with 8082
608	Pesticides & PCBs	One 1-Liter amber glass, none OR 1-Liter amber with Na-Thio if chlorine is expected	Cool 4°C	7 days	Dedicated container
8151	Chlorinated Herbicides	One 1-Liter amber glass, none	Cool 4°C	7 days	Dedicated container
9071	Oil & Grease	One 1-Liter amber glass, HCl	HCl, pH<2 Cool 4°C	28 days	Dedicated container
1633	PFAS	Two 500-mL Plastic, none	Cool 4°C Dark	28 days	Dedicated containers, **both** are required to run this test
9040	pH	250-mL Plastic, none	Cool 4°C	15 minutes	Can be shared with other unpreserved inorganics bottles
8015-Glycols	Ethylene glycol Propylene glycol	One 40-mL VOA, none	Cool 4°C	14 days	Dedicated container
ASTM D7511	Total Cyanide	125-mL Plastic, NaOH	NaOH, pH>10 Cool 4°C	14 days	Can be shared with free cyanide
ASTM D7237	Free Cyanide	125-mL Plastic, NaOH	NaOH, pH>10 Cool 4°C	14 days	Can be shared with total cyanide
245.7	Mercury	250-mL Amber glass, HCl	HCl, pH<2 Cool 4°C	28 days	Dedicated container

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Matrix: Non-potable Water

Method	Analytes	Container	Preservative	Hold Time	Comments
6020 OR 200.8	Dissolved Metals	Filtered: 250-mL Plastic, HNO3 OR Unfiltered: 250-mL Plastic, none	Filtered on Site: HNO3, pH<2 Filtered in Lab: None	All other metals - 6 months Mercury - 28 days	Dissolved and total cannot be run out of the same container
	Total Metals	250-mL Plastic, HNO3	HNO3, pH<2	All other metals - 6 months Mercury - 28 days	
7199 OR 218.6	Hexavalent Chromium	125-mL Plastic, CRVI Buffer	CRVI Buffer, pH=9 Cool 4°C	28 days	Dedicated container
300.0	Bromide	250-mL Plastic, none	None	28 days	The requested anion that requires the most preservation and the shortest hold time will determine the treatment of the sample.
	Chloride				
	Fluoride				
	Nitrate-N	250-mL Plastic, none	Cool 4°C	48 hours	
	Nitrite-N				
	Sulfate	250-mL Plastic, none	Cool 4°C	28 days	
SM 2320B	Alkalinity	500-mL Plastic, none	Cool 4°C	14 days	Can be shared with other unpreserved inorganics bottles
410.4	COD	125-mL Plastic, H2SO4	H2SO4, pH<2 Cool 4°C	28 days	Can be shared with other H2SO4 preserved inorganics bottles
110.2	Color	125-mL Plastic, none	Cool 4°C	2 days	Can be shared with other unpreserved inorganics bottles
USGS I-3765-85	Total Suspended Solids	1-L Plastic, none	Cool 4°C	7 days	Dedicated container
SM 2540C	Total Dissolved Solids	500-mL Plastic, none	Cool 4°C	7 days	Can be shared with other unpreserved inorganics bottles

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Matrix: Non-potable Water

Method	Analytes	Container	Preservative	Hold Time	Comments
SM2510	Conductivity	125-mL Plastic, none	Cool 4°C	28 days	Can be shared with other unpreserved inorganics bottles
180.1	Turbidity	125-mL Plastic, none	Cool 4°C	2 days	Can be shared with other unpreserved inorganics bottles
SM 4500-Cl G	Total Chlorine Free Chlorine	250-mL Plastic, none	Cool 4°C	ASAP	Can be shared with other unpreserved inorganics bottles
Hach 10242	TKN	125-mL Plastic, H2SO4	H2SO4, pH<2 Cool 4°C	28 days	Can be shared with other H2SO4 preserved inorganics bottles
Hach 10208	Total Nitrogen	125-mL Plastic, H2SO4	H2SO4, pH<2 Cool 4°C	28 days	Can be shared with other H2SO4 preserved inorganics bottles
Hach 10206	Nitrate as N	125-mL Plastic, none	Cool 4°C	48 hours	Can be shared with other bottles with the same preservation
	Nitriate-Nitrite	125-mL Plastic, H2SO4	H2SO4, pH<2 Cool 4°C	14 days	
350.1	Ammonia as N	125-mL Plastic, H2SO4	H2SO4, pH<2 Cool 4°C	28 days	Can be shared with other H2SO4 preserved inorganics bottles
SM4500-SiO2 D	Silica	125-mL Plastic, none	Cool 4°C	28 days	Can be shared with other unpreserved inorganics bottles
365.3	Total Phosporus	125-mL Plastic, H2SO4	H2SO4, pH<2 Cool 4°C	28 days	Can be shared with other bottles with the same preservation
	Reactive Phosphorus	125-mL Plastic, none	Cool 4°C	48 hours	
SM4500-S2 D	Sulfide	BOD bottle, Zn Acetate/NaOH	Zinc Acetate/NaOh, ph>9 Cool 4°C	7 days	Dedicated container

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Matrix: Non-potable Water

Method	Analytes	Container	Preservative	Hold Time	Comments
EPA 1633	PFAS	Two 500mL HDPE plastic, no liner **AND** One 125 mL HDPE plastic, no liner	Cool 4°C and protected from light	28 days	All three bottles are required to run this test

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Matrix: Vapor

Method	Analytes	Container	Preservative	Hold Time	Comments
TO-15	VOCs	Summa Can	None	28 days	Call to request, preparation can take a few days depending on the size of the order.
8021	Benzene Toluene Ethylbenzene Xylenes MTBE Naphthalene	Tedlar bag	None	48 hours	Can be shared with other tests that use tedlar bags
8015-GRO	GRO	Tedlar bag	None	48 hours	Can be shared with other tests that use tedlar bags
8260	VOCs	Tedlar bag	None	48 hours	Can be shared with other tests that use tedlar bags
8015-Methane	Methane	Tedlar bag	None	48 hours	Can be shared with other tests that use tedlar bags