

SUMMIT SCIENTIFIC

Sample Container And Preservative Guide

	METHOD	CONTAINER	VOLUME	PRESERVATIVE	HOLDING TIME
Volatile Organics					
(GRO) Gasoline Range Organics	8015	VOA-glass	2 40ml vials	Cool, HCL, no HS	14 days**
BTEX, MTBE or BTEX + MTBE	8260	VOA-glass	2 40ml vials	Cool, HCL, no HS*	14 days**
EDB & DBCP	504.1	VOA-glass	2 40ml vials	Cool, Na ₂ S ₂ O ₃ no HS	28 days
Halocarbons	601, 8010	VOA-glass	2 40ml vials	Cool, no HS*	14 days
Halocarbons/BTEX	8010/8020, 8021, 502.2	VOA-glass	2 40ml vials	Cool, HCL, no HS*	14 days**
Volatiles by GC/MS	8260	VOA-glass	2 40ml vials	Cool, HCL, no HS*	14 days**
Semi-Volatile Organics					
(DRO) Diesel Range Organics	8015	VOA-glass	3 40ml vials / 1 2oz	Cool	7 days / 14 soil
Carbonate Pesticides	632	glass-amber	1L	Cool	7 days
Formaldehyde	8315	glass-amber	1L	Cool	72 hours
Herbicides	615, 8150	glass-amber	1L	Cool	7 days / 14 soil
PCBs in Oil	8080	VOA-glass	5g	Cool	14 days
Pesticides & PCBs	8081, 8082	glass-amber	1L	pH 5-9, Cool	7 days / 14 soil
Phenolic Compounds	604, 8040, 8270	glass-amber	1L	Cool	7 days / 14 soil
Phosphorous Pesticides	614, 622, 8140	glass-amber	1L	pH 5-9, Cool	7 days / 14 soil
Phthalates	8060, 8270	glass-amber	1L	Cool	7 days / 14 soil
Poly-nuclear Aromatics	8270	glass-amber	1L	Cool	7 days / 14 soil
Semi-Volatiles (BNAs)	625, 8270	glass-amber	1L	Cool	7 days / 14 soil
SVOCs by GC/MS	8270	glass-amber	1L	Cool, HCL [^] *	7 days
Metals					
Chromium VI	218.5, 7196, SM 3500	poly	500ml	Cool	24 hours
Mercury	245.1, 7470, 245.5, 7471	poly	500ml	HNO ₃	28 days
Organic Lead	CA DHS (LUFT)	glass-amber	1L	Cool	14 days
All Other Metals	200, 6000, 7000	poly	500ml	HNO ₃	6 months
Dissolved Metals must be filtered prior to preservation					
Inorganic & Wet Chemistry					
Acidity	SM 2310	poly or glass	100ml	Cool, no HS	14 days
Alkalinity	310.1, SM 2320	poly or glass	100ml	Cool, no HS	14 days
Ammonia (as N)	350.3, SM 4500	poly or glass	500ml	Cool, H ₂ SO ₄	28 days
BOD	405.1, 405.2	poly	1L	Cool	48 hours
Carbon Dioxide	SM 4500	poly or glass	100ml	Cool, no HS	immediately
Chlorine	330.5, SM 4500	poly or glass	500ml	Do not expose to light	immediately
COD	410.4, SM 5220	amber	100ml	Cool, H ₂ SO ₄	28 Days
Coliform (Total & Fecal)		bacti	100ml	Cool, Na ₂ SO ₃	6-24 hours
Color	SM 2120	poly or glass	500ml	Cool	48 hours
Cyanide (Reactive)	SW 846	poly of glass	500ml	Cool, NaOH, No HS	14 days
Cyanide (Total & Amenable)	SM 4500	poly of glass	500ml	Cool, NaOH	14 days
Dissolved Oxygen	360.1, SM 4500	DO bottle	100ml	none	immediately
Flashpoint / Ignitability	1010	poly or glass	100ml	Cool	N/A
Hardness	200.7, 6010, SM 2340	poly	500ml	HNO ₃	6 months

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Inorganic & Wet Chemistry (continued)					
Heterotrophic Plate Count		bacti	100ml	Cool, Na ₂ S ₂ O ₃	24 hours
Ions by IC: FI, Br, & Cl	300.0	poly	100ml	none	28 days
MBAS (Surfactants)	425.1, SM 5540	poly or glass	1L	Cool	48 hours
Nitrate / Nitrite	300.0	poly or glass	500ml	Cool	48 hours
Odor	SM 2150	glass-amber	500ml	Cool	24 hours
Oil & Grease	1664	glass-amber	1L	Cool, HCL	28 days
Paint Filter	9095	N/A	100g	none	N/A
pH / Temperature	150.1, 9045, 170.1	poly or glass	100ml	none	immediately
Phenols (Total)	420.1, 9065	glass-amber	500ml	Cool, H ₂ SO ₄	28 days
Phosphate	300	glass-amber	100ml	Cool	48 hours
Phosphorous	365.3, 200.7, 6010, SM4500	poly or glass	100ml	Cool, H ₂ SO ₄	28days, 24hr. (dis.)
Salinity / Spec. Conductance	120.1	glass-amber	500ml	Cool	28 days
Solids: TDS, TSS	160.1, 160.2	poly or glass	500ml	Cool	7 days
Settleable solids	160.5	poly or glass	1L	Cool	48 hours
Specific Gravity	SM 2710	N/A	500ml	none	N/A
Sulfate	300	poly or glass	500ml	Cool	28 days
Sulfide (Dissolved & Soluble)	376.2, 9030, SM 4500	poly or glass	500ml	NaOH	immediately***
Sulfide (Total & Reactive)	3762, 9030, SM 4500, SW846	poly or glass	500ml	NaOH + Zn Acetate; NH	7 days
Sulfite	377.1	poly or glass	100ml	Cool	immediately
Thiosulfate	LACSD253B	poly	500ml	Cool	
TKN	SM 4500	poly or glass	500ml	Cool, H ₂ SO ₄	28 days
TOC	415.1, 9060, SM 5310	2 VOA-glass	40ml	Cool, dark, HCL, no HS	28 days
TIC	SM 5310	2 VOA-glass	40ml	Cool, dark, no HS	28 days
TOX	9020	glass-amber	500ml	Cool, dark, no HS	14 days
TRPH	418.1	glass-amber	1L	Cool, HCL	28 days
Turbidity	180.1, SM 2130	poly or glass	100ml	Cool, dark	48 hours

Bioassay

Chronic		poly	15 gal	Cool	36 hours
Effluent	600/ 4-85/ 01	poly	10 gal	Cool	36 hours
Haz. Waste	Title 22/26	N/A	1L(w), 20g (s)	Cool	N/A
% Survival		poly	5 gal	Cool	36 hours

(**) 7 days without HCL

(HS) Head Space

(*) If residual chlorine is present, add Na₂S₂O₃

***Separate and preserve immediately to extend hold time to 7 days

PRESERVATIVE

ACTION

APPLICABLE TO:

Hydrochloric Acid (HCL)

Prevents biodegradation

purgeable aromatics, halocarbons, oil & grease, petroleum hydrocarbons, total recoverable petroleum hydrocarbons, TOC metals, hardness

Nitric acid (HNO₃)

Prevents metals from precipitating
Or absorbing on container walls

Refrigeration (Cool at 4° C)

Bacterial inhibitor, prevents loss of
Volatiles

acidity, alkalinity, biological organisms, BOD, color, odor
organic N, organic P, organic C, volatile organic compounds
cyanides, dissolved/soluble sulfide

Sodium Hydroxide (NaOH)

Prevents formation of HCN

Sodium Thiosulfate (Na₂S₂O₃)

Reduces free chlorine

bacterial tests, EDB & DBCP, halocarbons, and any other highly
Chlorinated organic sample

Sulfuric acid (H₂SO₄)

Bacterial inhibitor

ammonia, COD, organic N, phosphorous