

## Drinking Water Sample Collection Instructions

### Sample Collection for Tap/Drinking Water

**Method 546 (Microcystins/Nodularins)** – Prior to shipment to the field, add sodium thiosulfate (CASRN 7772-98-7) to each sample bottle. The final concentration of sodium thiosulfate in the sample should be 100 mg/L. Do not dilute sodium thiosulfate in water when preparing sample bottles. The reducing agent must be added to the empty bottle in solid form. In the field, open the tap and allow the system to flush for approximately 5 minutes. Fill each bottle, taking care not to flush out the sodium thiosulfate, and invert several times to mix the sample with the reducing agent.

**Method 545 (Anatoxin-a / Cylindrospermopsin)** – Prior to use, add ascorbic acid (quenching agent; CASRN 50-81-7) and sodium bisulfate (microbial growth inhibitor; CASRN 7681-38-1) to each sample bottle. When sampling from a cold water tap, remove the aerator, open the tap, and allow the system to flush until the water temperature has stabilized (approximately three to five minutes). Invert the bottles or vials several times to mix the sample with the preservation reagents. Fill sample bottles or vials taking care not to flush out the preservatives. It is acceptable to leave head-space in the container.

**General Instructions for all analytes (In-House SOPs)** - Prior to collection, add sodium thiosulfate (CASRN 7772-98-7) to each sample bottle. The final concentration of sodium thiosulfate in the sample should be 100 – 500 mg/L. Open the tap and allow the system to flush for approximately 3-5 minutes. Fill each vial slowly, taking care not to flush out the reducing agent. Leave head-space in the container, cap, and invert to mix.

### Shipment (all methods):

Chill samples (refrigerator) until and during shipment not exceed 10 °C during the first 48 hours after collection.

**Table 1:** Sampling Containers, Preservatives, and Holding Times for Anatoxin-a (ATX), Cylindrospermopsin (CYN) and microcystins/nodularins (MCs/NODs). **Raw water** samples do not require a preservative unless intakes are treated with permanganate. If you are not required to use US EPA Methods, follow instructions for out in-house method SOPs.

Matrix	Analyte (Method)	Bottle Type	Sample Size	Preservative Finished Drinking Water	Holding Time
Water	MCs/NODs (Method 546)	glass amber	40-250 mL	sodium thiosulfate = 0.1 g/L	14 days ≤ 6°C
Drinking Water	CYN/ATX (Method 545)	glass	40-250 mL	ascorbic acid = 0.1 g/L and sodium bisulfate = 1 g/L	28 days ≤ 6°C
Water	All analytes (In-House SOPs)	raw/ambient water = plastic drinking water = glass amber	40-250 mL	sodium thiosulfate (0.1 - 0.5 g/L)	10 days ≤ 6°C; freeze to increase hold time to 6 months