



PFAS (PFC) EPA Method 533 / 537.1 Sampling Instructions

RON MILKE

Mid-Atlantic Account Manager

Eurofins Eaton Analytical



www.EurofinsUS.com/Eaton

1

Sampling Clothing



- Avoid wearing clothing or boots containing Gore-Tex or using materials containing Tyvek.
- Avoid using cosmetics, moisturizers, heavy fabric softeners on clothes the day of sampling.
- Use PFAS-free sunscreens.
- Avoid insect repellants.
- No aluminum foil present.
- Collect PFAS samples first if your cooler contains other sample collection bottles!

2

Consideration of Supplies



- **Do NOT use chemical ice packs.**
- **Felt-tip pens and permanent markers should NOT be used. Use regular ball point pens.**
- **Avoid adhesive products like sticky notes.**
- **Avoid plastic clipboards, binders, hard covers, etc.**
- **Sampler must wash hands before wearing nitrile gloves in order to limit contamination during sampling.**

3

Container Requirements



- **ONLY use the containers that have been provided by the laboratory.**
- **These containers are plastic. They're either HDPE (High Density Polyethylene) or HDPP (High Density Polypropylene). All other plastics, including Nalgene, could contaminate the sample.**
- **Trizma is the only preservative that may be used. (Trizma Pre-set crystals are a trademarked chemical made for adjusting the pH of samples and the removal of any free chlorine.)**

4

Before Sampling



- Read all lab specific instructions before sampling.
- Plan to have all samples collected the same day as the pick-up day, whether it's a lab or delivery service's courier (UPS/Fed Ex), to limit the potential of on-site environmental contamination.
- Please locate chain of custody (COC) that should have been included with the sample containers.
- If your sampling point has a faucet with an aerator, remove the aerator prior to collection of the samples.

Sampling Protocol Steps



- ***CAUTION: Containers contain chemical preservatives...avoid skin contact!***
- Wash hands and put on Nitrile gloves (provided). They must be worn during the sample collection.
- Find the PFAS containers in your cooler: 2 – 250 ml plastic (HDPE/HDPP) containers pre-preserved with 1.25 g Trizma.

Sampling Protocol Steps (continued)



- Flush the cold water sampling line approximately 10-15 minutes immediately prior to sampling.
- Slow the water stream before collection to ensure no splashing of sample.
- Remove cap **WITHOUT** touching the inside of the cap or around the edge of the container.
- Fill the container to the neck, replace cap and tighten.

7

Sampling Protocol Steps (continued)



- Do **NOT** overfill container.
- Allow a small amount of head space for mixing the sample with the preservative.
- Invert at least five times to mix the sample with the preservative.
- Indicate sampling date, time, and location on both the container label **AND** the chain of custody (COC). If there is no COC, please contact your lab as soon as possible.
- The info on both label and COC must match.

8

PFAS Field / Trip Blank



- Per EPA methods 537.1 and 533 methodology, a Field / Equipment Blank (FB) must be collected with all drinking water samples.
- Open the FB container and pour the PFAS-free field blank water (provided) into the empty container labeled Field Blank at the sampling location.
- The FB will only be analyzed if the targeted compounds for the sample are detected on the associated sample. (MRL = 2.0 ppt)

9

FB Analysis Example



- If PFNA / PFOS / PFOA is requested on the COC, and we detect any level of them above 2.0 ppt (ng/l), then...per the method requirements, we must analyze the FB for those three compounds.
- If 18 PFAS targets are requested using method 537.1 and any one of those compounds has a result above the reporting limit (MRL), then we must analyze the FB, even though the PFNA / PFOS / PFOA may not be detected.
- If the 25 PFAS targets are requested using method 533 and any one of those compounds has a result greater than the MRL, then we must analyze the FB.
- If all results are non-detect, then the FB is NOT analyzed.

10

Shipping Instructions



- Place a layer of ice on the bottom of the cooler. Preferably in one-gallon zip-lock bags.
- Place samples on the layer of ice. Fill in gaps between containers with ice or bubble wrap.
- Place a layer of ice, preferably in zip-lock bags, on top of the samples.
- Place completed COC in zip-lock bag and place on very top of the inside of the cooler.

11

Shipping Instructions (continued)



- If samples are being sent directly to the testing lab, make sure they are overnighted to the testing lab.
- Samples must arrive at testing laboratory within 48 hours of sampling.
- Maximum temperature of samples can be 10 degrees C...but not below 0 degrees C.
- Maximum hold time to start analysis is 14 days for method 537.1 and 28 days for method 533.

12

Any Questions?



Ronald.Milke@EurofinsET.com

