



Per- and Polyfluoroalkyl Substances (PFAS)

PFAS in the Environment

Per- and polyfluoroalkyl substances (PFAS) have many industrial and commercial applications due to their ability to repel oil and water, reduce friction, and their resistance to high temperatures. Non-stick coatings, textile applications and firefighting foams represent some of the most common uses of PFAS. Because of their widespread use since the manufacturing of these chemicals began in the 1940s, PFAS can be detected in human and mammalian serum all over the world.

Manufacturing and use of PFAS has resulted in their presence in the environment. The health effects of Perfluorooctyl Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) have been widely studied and are associated with several adverse health effects. They are very persistent in the environment and are bioaccumulative.

PFAS can be released into the environment from sources such as the use for firefighting foams at airports, military sites and major industrial facilities such as refineries. These all have important firefighting training activities and, in some cases, application during fire events. After usage PFAS can migrate to soil, groundwater, surface water, drinking water, and eventually landfill leachate and wastewater.

Key Industries supported with PFAS analysis include:

- Firefighters & First Responders
- Government Agencies
- Airports
- Energy, Oil, & Gas
- Wastewater Infrastructure
- Manufacturers

Why AGAT Stands Out in PFAS Testing



Leading Turnaround Times



Team of Technical Experts



Critical Lab Capacity



Coast to Coast Coverage

Analytical Method

In light of ongoing regulatory evaluations in various countries, AGAT has opted to align with established guidelines, particularly those published by the US Environmental Protection Agency, which encompasses several robust methods for PFAS analysis. This approach ensures that our PFAS testing protocols remain in harmony with widely recognized standards, promoting consistency and reliability in our analytical services. AGAT Laboratories offers PFAS analysis complying with the most current versions of EPA 533, EPA 537.1 for drinking water and EPA 1633 for other matrices, covering all compounds in those methods.

Accreditation

AGAT Laboratories is accredited by SCC, CALA, A2LA, ANAB, and the Arizona Department of Health Services. In water and soil samples, with ongoing plans to expand our scope of analysis to enhance service for international clientele and keep aligned with the evolving regulatory requirements and method improvements.

Field Sampling

Given the ubiquitous nature of PFAS, the material and procedure normally used for environmental sampling may cause cross-contamination when collecting samples. It is important to plan ahead for sample collection activities to ensure the potential for cross contamination is minimized.

Sampling Supplies

- Request all containers, equipment rinse water from the laboratory.
- It is recommended to request a field blank, a trip blank, an equipment blank, and enough containers for duplicate samples for your field program.
- High-density polyethylene (HDPE) sampling bottles and jars with Teflon-free lids must be used.
- PFAS free water is available through AGAT.
- Do not use chemical ice packs.

Sampling Considerations

- Avoid clothing treated with water-resistant, waterproof and/or stain-treated clothing. (i.e. Gore-Tex, Tyvek). Waterproof clothing made with polyurethane, polyvinyl chloride (PVC), rubber or neoprene is recommended.
- Polypropylene (PP), silicone, stainless steel, nylon, acetate, cotton materials and equipment parts can be used during sampling.
- Samples should not be in contact with glass or low-density polyethylene (LDPE).
- Clothing with natural fibers is preferred.
- Clothing should be well laundered, not new, and free of laundry soaps and fabric softeners. Water rinse is recommended before dryer.
- Waterproof notebooks and pads are NOT permitted on site. Gel pens are recommended.
- Powderless nitrile gloves should be worn at all stages of sampling and changed frequently, including but not limited to decontamination, manipulation, sampling, blank sampling, etc.
- Avoid any cosmetics, moisturizers, fragrances, and creams. Sunscreens and insect repellent must be applied outside of the sampling area when necessary preferably at least half an hour before sampling. Hands must be washed well after application of sunscreens and insect repellents.
- Avoid packaged food in sampling area.

Please note that this is not an exhaustive list of all sampling guidelines, but focuses on key areas of consideration. For more information please contact your designated AGAT representative or info@agatlabs.com.