

IC2 Product Testing WG Subgroup - Technical Aspects of PFAS

Thursday, March 27, 2025 from 12 noon – 1 p.m. PT/3 – 4 p.m. ET

Participants (12): Mikalah Bailey, Trevor Peckham, Mui Koltunov, Kelleigh Wasser, Michael Zahn, Ivan Titaley, André Algazi, Jennifer Harfmann, Sarah Briggs, Nan Xie, Katie Fellows, Stephanie Frisch

Current Work and Capacity

Env. Chemistry Lab at DTSC

- Tested/Testing total fluorine (TF) using combustion ion chromatography (CIC) in carpets, rugs, pfas spray for like Gore-Tex, artificial turf, etc. Recently completed a study looking at pfas in women's breast milk.
- Looking into what the proper analytical tools for products would be. Multi-laboratory validation study EPA method 1633, looking at 40 targets pfas compounds. Using compliance testing, reliable test methods, consultations, etc.
- The big takeaway is that the lab is doing a lot of different pfas testing for many different purposes.

King County

- Working on a project, funded by the Washington State legislation, to examine the compacity to screen consumer products for fluorine using a handheld XRF.
- Using three testing methods including handheld XRF, CIC, and speciation for a subset of PFASs. Also sending some samples to a university for proton-induced gamma emission (PIGE) analysis.
- Testing homogenized samples and intact products. Chose ~90 children's products and involved the community in selecting priority chemicals. Thinking about more community-based approaches to support product replacement programs.

MPCA

- Testing with external commercial labs for pfas, in food packaging. Tried numerous methods such as TF and EOF (Extractable Organic Fluorine) using CIC , TOF by TF and Inorganic Fluorine using, bomb combustion followed by IC or ISE, or by CIC, and decided to move forward with TOF (TF minus Inorganic Fluorine). Both Bomb Combustion followed by IC/ISE and CIC give comparable results. There can be some interference of acetate when analyzing for Inorganic Fluorine using CIC.
- Every time they use a new lab, they send in historical pfas samples to compare and check that the lab's results are consistent.

CIC vs PIGE sampling:

WAE CY: “Based on my experience, PIGE is really optimized for surface treatment of PFAS since it has some depth limitation. CIC, on the other hand, is good at bulk analysis”

DTSC saw that results vary with PIGE.

WAE CY

- Looking at AA’s for pfas in paint and artificial turf. Product testing for pfas in consumer products, food packaging, carpets, textiles, cookware etc.
- Uses internal and external labs for regulatory needs.

NHDES

- Trying to understand pfas in wastewater primarily ground but also surface. Worked with carpet cleaning businesses to sample products they use. Trying to understand what’s contributing to pfas in wastewater like detergents, hand washing, etc. Only testing products now, not containers.
- Testing with commercial labs for testing using method 1633 and some expanded analysis. There are some interfaces of matrices. Challenges trying to speciate.

NYSP2I

- Supports testing efforts for NYSDEC, will facilitate testing and review results. Testing containers for fluorinated HDPE. Most of their work is done in understanding PFAS and measurements.

Technical Challenges and Needs

- Artificial Turf: DTSC separates the backing and the fiber. Grinds into fine powder and then does a top assay for targeted analysis and to see a higher concentration of the targeted PFAS.
- DTSC learned that for products that haven't been regulated yet, you may have to be careful with what you test.

Meeting Frequency and Next Steps

- Meet quarterly, next meeting late June early July

Chat:

- <https://www.nsf.org/news/nsf-introduces-pfas-free-certification>
- <https://natlawreview.com/article/pfas-detection-test-thrown-out-court-what-it-teaches-us-about-compliance-efforts>