**Supporting Information**

# How well do product labels indicate the presence of PFAS in consumer items used by children and adolescents?

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## Standards and reagents

For targeted PFAS analysis via LC/MS/MS, all native and isotopically labeled standards were purchased from Wellington Laboratories (ON, Canada). Reagents included methanol ≥99.9% (B&J Brand™) for HPLC and CHROMASOLVTM (Honeywell Research Chemicals) for LC-MS, 1M ammonium acetate at pH 5.0 (Waters), glacial acetic acid (BDH Chemicals), ammonium hydroxide (BDH Chemicals), sodium acetate buffer (Alfa Aesar), NaOH (BDH Chemicals), potassium persulfate (BDH Chemicals), 6N HCl (GFS Chemicals), and Ottawa sand (BDH Chemicals). Extraction media for sample preparation included Strata ™-X-AW 33 µm Polymeric Weak Anion, 500 mg cartridges and Strata GCB, 250 mg cartridges (Phenomenex). Sample preparation apparatus included SCP Digi Tubes (SCP Science), 25 mm 0.2-µm syringe filters (Whatman), 5-mL PP syringes (Thermo Fisher), 50-mL centrifuge tubes (Bio Express), 700-µl PP LC vials (Waters), 4-mL PP storage vials (Thermo Fisher), and vacuum manifolds (Waters).

## LC/MS/MS procedures for PFAS analysis

Extract cleanup was performed using a solid phase extraction (SPE) cartridge containing a mixed mode, weak anion exchange (WAX), reversed phase stacked onto a 250 mg graphitized carbon black cartridge. Cartridges were pre-conditioned by rinsing with 15 mL of methanol containing 2% ammonium hydroxide. Five mL of the methanol extract was transferred to an SPE cartridge and allowed to pass through it by gravity feed at a dropwise rate, ensuring adequate contact time with the cartridge sorbent. The cartridge was then rinsed with an additional 5 mL of methanol. Vacuum was applied only if the flow of solvent through the cartridge stopped. Eluates were concentrated to dryness under a gentle stream of nitrogen in a heated water bath (60-65 °C). 20 µL of the isotope dilution recovery primary dilution standard was added to the collection vial, and the appropriate amount of 80:20% (vol/vol) methanol:water solution was added and to bring

the volume to 1 mL. The extract was then vortexed and two aliquots were each transferred with a plastic pipette into each of two polypropylene autosampler vials. Due to the possible volatility and suspect degradation of sulfonamides and sulfonamide ethanols when exposed to heat, a portion of the eluate was retained and analyzed independently with no evaporation for these analytes.

Individual PFAS were quantified in extracts using a Waters Acquity H class HPLC equipped with an LC BEH $C_{18}$ column (2.1 x 50 mm) packed with 1.7 μm $d_p$ $C_{18}$ solid phase particles coupled to a Waters Xevo TQ-S micro operating in the MS/MS mode. The mobile phases consisted of 2 mM ammonium acetate in 95:5 methanol water (mobile phase A) and methanol (mobile phase B).

## Quality assurance/quality control (QA/QC) methods and results

*Total fluorine*

Our quality control methods were informed by guidance for analysis of environmental data.[1] Product samples and replicates for six products (Table S6) were analyzed for total fluorine in eight batches, and the laboratory was blind to the identity of the replicate samples. Method blank samples were run after at least every 10 samples, as well as the beginning and end of each batch. Percent recovery ranged between 99-101%.

The limit of detection (LOD) for each total F measurement (in ppm) was calculated using the following equation:

$$LOD = \frac{\left(\left(C_{std} \times DF\right) - C_{blank}\right) \times V_{sp} \times 1000}{M_s}$$

where:

$C_{std}$ = concentration of the lowest calibration standard, typically 0.1 or 0.5 mg/L

DF = dilution factor for the sample

$C_{blank}$ = concentration of the batch blank (mg/L)

$V_{sp}$ = sample preparation volume (amount of buffer used for sample), typically 20 or 100 mL

$M_s$ = sample mass, typically 200 mg

The calibration curve was checked using a potassium fluoride (KF) standard solution. For the calibration to be considered acceptable for a given batch, the calculated concentration was required to be within 90-110% of the expected value.

A diluted p-fluorobenzoic acid standard was also used to check the calibration during each run and to monitor drift. This standard was run through the same preparation as the samples and the analysis criteria required 96.8–103.2% recovery of the standard for the calibration to remain valid. This standard was used for the low calibration specifically.

*Target PFAS and TOP assay analyses via LC/MS/MS*

Sample analysis for 36 target PFAS analytes was conducted in four batches, using LC/MS/MS with isotope dilution. Extracted Internal Standards (EIS) were spiked into pre-extracted samples and carried through the entire analytical process. Recoveries of extracted internal standards were used to assess extraction efficiency of the analytic method for each target analyte. Surrogate recovery standards were spiked into extracts after blow down. The concentrations of these recovery standards were determined using a calibration curve developed from a set of standards run separately. Recoveries for the surrogate standards were then used to correct the concentrations of the extracted internal standards. The sample concentrations were then calculated using the extracted internal standard recoveries.

For the TOP analysis, each extract was spiked with 20 µL of TOP pre-assay surrogates containing five negative control surrogates (to assess complete oxidation of precursors) and three positive control surrogates (to assess complete formation of terminal products). Positive control recoveries were within 50-150% and were considered adequate. Because TOP is based on oxidation of unknown precursors, we were not able to evaluate recoveries of all possible precursor analytes. We did observe that 13 of 18 internal standard surrogates run in the TOP assay had recoveries <50% in more than half of the samples that the 18 surrogates were measured in, indicating that measured PFAA precursor concentrations may have been biased low.

Method Detection Limits (MDL) (or LOD) for each analyte were determined by extracting and analyzing a minimum of seven low-level samples spiked at or just below the lowest calibration standard. The MDL is a statistically calculated value determined from the standard deviation of the spiked samples multiplied by a statistical constant student-t value at 99% confidence. The Reporting Limit (RL) is equal to the Limit of Quantitation (LOQ), which is set to the lowest calibration standard.

Precision and accuracy of the analytical method were evaluated using laboratory control samples. One field blank (10 mL of methanol with 2% ammonium hydroxide added to an empty centrifuge tube) was analyzed, and all target analyte concentrations were <LOD. Field blank surrogate recoveries were consistent with the surrogate recoveries for samples. Four to six method blanks were run for each target analyte in each of the four batches, and among these, only N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA), perfluorobutanoic acid (PFBA), perfluorohexadecanoic acid (PFHxDA), perfluorohexanoic acid (PFHxA), perfluorooctanoic acid (PFOA), and perfluorotetradecanoic acid (PFTA) were detected, all below 1 ng/g. Because none of method blanks had any PFAS detected above the MRL, and following guidance from Udesky et al. on blank correction procedures for multiple blank detections,[1] we did not blank correct or censor the data.

Duplicate samples were analyzed for each of five products, with each duplicate conducted in a different analysis batch. The laboratory was blind to the identity of the duplicate samples. For each duplicate pair of a detected target analyte, the relative percent different (RPD) was below 20%, except for PFTrDA, PFPeS, and NMeFOSE. The measurements for each sample replicate are reported in Table S5.

**Table S2**. Reporting limits, method detection limits, and method reporting limits for PFAS target analytes and terminal PFAAs formed by the Total Oxidizable Precursor (TOP) assay. All concentrations in ng/g.

| Analyte | TOP | CAS number | RL[a] | MDL[a] | MRL range[a] | MRL range (TOP) |
|---|---|---|---|---|---|---|
| Perfluorobutanoic acid (PFBA) | ✓ | 375-22-4 | 0.5 | 0.0227 | 1.11-26.6 | 1.11-18.7 |
| Perfluoropentanoic acid (PFPeA) | ✓ | 2706-90-3 | 0.5 | 0.046 | 1.11-26.6 | 1.11-18.7 |
| Perfluorohexanoic acid (PFHxA) | ✓ | 307-24-4 | 0.5 | 0.0525 | 1.11-26.6 | 1.11-18.7 |
| Perfluoroheptanoic acid (PFHpA) | ✓ | 375-85-9 | 0.25 | 0.0451 | 1.11-26.6 | 1.11-18.7 |
| Perfluorooctanoic acid (PFOA) | ✓ | 335-67-1 | 0.25 | 0.0419 | 1.11-26.6 | 1.11-18.7 |
| Perfluorononanoic acid (PFNA) | ✓ | 375-95-1 | 0.25 | 0.075 | 1.11-26.6 | 1.11-18.7 |
| Perfluorodecanoic acid (PFDA) | ✓ | 335-76-2 | 0.25 | 0.067 | 1.11-26.6 | 1.11-18.7 |
| Perfluoroundecanoic acid (PFUnA) | ✓ | 2058-94-8 | 0.5 | 0.0468 | 1.11-26.6 | 1.11-18.7 |
| Perfluorododecanoic acid (PFDoA) | ✓ | 307-55-1 | 0.5 | 0.07 | 1.11-26.6 | 1.11-18.7 |
| Perfluorotridecanoic acid (PFTrDA) | ✓ | 72629-94-8 | 0.5 | 0.2045 | 1.11-26.6 | 1.11-18.7 |
| Perfluorotetradecanoic acid (PFTA) | ✓ | 376-06-7 | 0.5 | 0.054 | 1.11-26.6 | 1.11-18.7 |
| Perfluorohexadecanoic acid (PFHxDA) | | 67905-19-5 | 2 | 0.12 | 2.22-53.2 | |
| Perfluorooctadecanoic acid (PFODA) | | 16517-11-6 | 2 | 0.171 | 2.22-53.2 | |
| Perfluorobutanesulfonic acid (PFBS) | ✓ | 375-73-5 | 0.25 | 0.039 | 1.11-26.6 | 1.11-18.7 |
| Perfluoropentanesulfonic acid (PFPeS) | ✓ | 2706-91-4 | 1 | 0.0835 | 1.11-26.6 | 1.11-18.7 |
| Perfluorohexanesulfonic acid (PFHxS) | ✓ | 355-46-4 | 0.25 | 0.0605 | 1.11-26.6 | 1.11-18.7 |
| Perfluoroheptanesulfonic acid (PFHpS) | ✓ | 375-92-8 | 0.5 | 0.1365 | 1.11-26.6 | 1.11-18.7 |
| Perfluorooctanesulfonic acid (PFOS) | ✓ | 1763-23-1 | 0.25 | 0.13 | 1.11-26.6 | 1.11-18.7 |
| Perfluorononanesulfonic acid (PFNS) | ✓ | 68259-12-1 | 1 | 0.299 | 1.11-26.6 | 1.11-18.7 |
| Perfluorodecanesulfonic acid (PFDS) | ✓ | 335-77-3 | 0.5 | 0.153 | 1.11-129 | 1.11-18.7 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Perfluorododecane sulfonic acid (PFDoDS) | | 79780-39-5 | 1 | 0.086 | 1.11-26.6 | |
| 1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS) | | 757124-72-4 | 1 | 0.0645 | 1.11-26.6 | |
| 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTS) | | 27619-97-2 | 0.5 | 0.1795 | 1.11-26.6 | |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | | 39108-34-4 | 0.5 | 0.287 | 1.11-26.6 | |
| 1H,1H,2H,2H-Perfluorododecanesulfonic acid (10:2 FTS) | | 120226-60-0 | 1 | 0.275 | 1.11-26.6 | |
| Perfluorooctanesulfonamide (FOSA or PFOSA) | | 754-91-6 | 0.5 | 0.098 | 1.11-26.6 | |
| N-Methyl perfluorooctane sulfonamide (NMeFOSA) | | 31506-32-8 | 1 | 0.379 | 1.11-19 | |
| N-Ethyl perfluorooctane sulfonamide (NEtFOSA) | | 4151-50-2 | 1 | 0.407 | 1.11-19 | |
| N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA) | | 2355-31-9 | 0.5 | 0.2015 | 1.11-26.6 | |
| N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA) | | 2991-50-6 | 0.5 | 0.0845 | 1.11-26.6 | |
| N-Methyl perfluorooctane sulfonamidoethanol (NMeFOSE) | | 24448-09-7 | 2 | 0.52 | 2.23-39 | |
| N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) | | 1691-99-2 | 2 | 0.73 | 2.22-39 | |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-heptafluoropropoxy]-propanoic acid (HFPO-DA) | | 13252-13-6 | 10 | 3.81 | 1.11-266 | |
| 4,8-Dioxa-3h-perfluorononanoic acid (ADONA) | | 919005-14-4 | 1 | 0.0413 | 1.11-26.6 | |
| 9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) | | 756426-58-1 | 1 | 0.0374 | 1.11-26.6 | |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS) | | 763051-92-9 | 1 | 0.0388 | 1.11-26.6 | |

[a] Applies to target PFAS. RL=reporting limit, MDL=method detection limit, MRL=method reporting limit

**Table S3.** Mass spectrometer settings

| **ESI Conditions** | |
|---|---|
| Polarity | Negative ion |
| Capillary needle voltage | 0.5 kV |
| Cone gas flow | 25 L/hr |
| Nitrogen desolvation gas | 1000 L/hr |
| Desolvation gas temperature | 500 ºC |

**Table S4.** Liquid chromatography settings

| **Time (min)** | **2 mM Ammonium acetate (5:95 MeOH/$H_2O$)** | **100% Methanol** |
|---|---|---|
| Initial | 100 | 0 |
| 1.0 | 100 | 0 |
| 2.2 | 85 | 15 |
| 11 | 20 | 80 |
| 11.4 | 0 | 100 |
| 12.4 | 100 | 0 |
| 15.5 | 100 | 0 |

**Table S5.** Target analyte, extracted internal standard, and surrogate standard quantitation parameters.

| Analyte | Type | Quantitation transition | Qualifier transition | IS | CV | CE |
|---|---|---|---|---|---|---|
| PFBA | target analyte | 213 > 169 | N/A | 3: M4PFBA | 20 | 8 |
| PFPeA | target analyte | 263 > 219 | N/A | 5: M5PFPEA | 18 | 8 |
| PFHxA | target analyte | 313 > 269 | 313>119 | 11: M5PFHxA | 20 | 10 |
| PFHpA | target analyte | 363 > 319 | 363>169 | 14: M4PFHpA | 18 | 8 |
| L-PFOA | target analyte | 413 > 369 | 413>219 | 23: M8PFOA | 11 | 9 |
| br-PFOA | target analyte | 413 > 369 | 413>219 | 23: M8PFOA | 11 | 9 |
| PFOA (total) | target analyte | 413 > 369 | 413>219 | 23: M8PFOA | 11 | 9 |
| PFNA | target analyte | 463 > 419 | 463>219 | 33: M9PFNA | 16 | 10 |
| PFDA | target analyte | 513 > 469 | 513>219 | 38: M6PFDA | 21 | 9 |
| PFUnA | target analyte | 563 > 519 | 563>269 | 41: M7-PFUDA | 22 | 18 |
| PFDoA | target analyte | 613 > 569 | 613>219 | 50: MPFDOA | 32 | 10 |
| PFTrDA | target analyte | 663 > 619 | 663>219 | 53: M2PFTEDA | 30 | 10 |
| PFTA | target analyte | 713 > 669 | 713>219 | 53: M2PFTEDA | 30 | 12 |
| PFHxDA | target analyte | 813>769 | 813>219 | 59: M2PFHxDA | 35 | 15 |
| PFODA | target analyte | 913>869 | 913>219 | 59: M2PFHxDA | 37 | 15 |
| PFBS | target analyte | 299 > 80 | 299 > 99 | 7: M3PFBS | 28 | 20 |
| PFPeS | target analyte | 349 > 80 | 349>99 | 18: M3PFHxS | 38 | 34 |
| L-PFHxS | target analyte | 399 > 80 | 399>99 | 18: M3PFHxS | 20 | 38 |
| br-PFHxS | target analyte | 399 > 80 | 399>99 | 18: M3PFHxS | 20 | 38 |
| PFHxS (total) | target analyte | 399 > 80 | 399>99 | 18: M3PFHxS | 20 | 38 |
| PFHpS | target analyte | 449 > 80 | 449>99 | 33: M8PFOS | 20 | 31 |
| L-PFOS | target analyte | 499 > 80 | 499>99 | 33: M8PFOS | 18 | 50 |
| br-PFOS | target analyte | 499 > 80 | 499>99 | 33: M8PFOS | 18 | 50 |
| PFOS (total) | target analyte | 499 > 80 | 499>99 | 33: M8PFOS | 18 | 50 |
| PFNS | target analyte | 549 > 80 | 549>99 | 33:M8PFOS | 18 | 42 |
| PFDS | target analyte | 599 > 80 | 599>99 | 33:M8PFOS | 6 | 50 |
| PFDoS | target analyte | 699>80 | 699>99 | 33: M8PFOS | 75 | 68 |
| 4:2 FTS | target analyte | 327 > 307 | 327>307 | 9: M2-4:2FTS | 15 | 20 |
| 6:2 FTS | target analyte | 427 > 407 | 427>407 | 25: M2-6:2FTS | 25 | 20 |
| 8:2 FTS | target analyte | 527 > 507 | 527>507 | 35: M2-8:2FTS | 25 | 20 |
| 10:2 FTS | target analyte | 627>607 | 627>81 | 25: M2-8:2FTS | 30 | 30 |
| PFOSA | target analyte | 498 > 78 | 498>169 | 29: M8FOSA | 12 | 28 |
| NMeFOSA | target analyte | 512>169 | 512>219 | 63: d3-NMeFOSA | 66 | 26 |

| Analyte | Type | Quantitation transition | Qualifier transition | IS | CV | CE |
|---|---|---|---|---|---|---|
| NEtFOSA | target analyte | 526>169 | 526>119 | 61: d5-NEtFOSA | 50 | 28 |
| br-NEtFOSAA | target analyte | 584 > 419 | 584>483 | 48: d5-NEtFOSAA | 41 | 20 |
| L-NEtFOSAA | target analyte | 584 > 419 | 584>483 | 48: d5-NEtFOSAA | 41 | 20 |
| NEtFOSAA (total) | target analyte | 584 > 419 | 584>483 | 48: d5-NEtFOSAA | 41 | 20 |
| NMeFOSE | target analyte | 616>59 | N/A | 66: d7-NMeFOSE | 28 | 14 |
| br-NMeFOSAA | target analyte | 570 > 419 | 570>483 | 41: D3-NMeFOSAA | 38 | 18 |
| L-NMeFOSAA | target analyte | 570 > 419 | 570>483 | 41: D3-NMeFOSAA | 38 | 18 |
| NMeFOSAA (total) | target analyte | 570 > 419 | 570>483 | 41: D3-NMeFOSAA | 38 | 18 |
| NEtFOSE | target analyte | 630>59 | N/A | 67: d9-NEtFOSE | 10 | 12 |
| HFPO-DA | target analyte | 285>169 | 329>285 | 54: M3HFPO-DA | 15 | 5 |
| ADONA | target analyte | 377>251 | 377>135 | 23: M8PFOA | 22 | 10 |
| 9ClPF3ONS | target analyte | 531>351 | N/A | 33: M8PFOS | 18 | 22 |
| 11ClPF3OUdS | target analyte | 631>451 | N/A | 33: M8PFOS | 22 | 26 |
| M2-4:2FTS | EIS | 329 > 81 | N/A | 29:M4PFOS | 12 | |
| M2-6:2FTS | EIS | 429 > 409 | N/A | 29:M4PFOS | 25 | 20 |
| M2-8:2FTS | EIS | 529 > 509 | N/A | 29:M4PFOS | 25 | 25 |
| M4PFBA | EIS | 217 > 172 | N/A | 1: M3PFBA | 10 | 8 |
| M5PFPEA | EIS | 268 > 223 | N/A | 1: M3PFBA | 10 | 6 |
| M5PFHxA | EIS | 318 > 273 | N/A | 19:M2PFOA | 16 | 6 |
| M4PFHpA | EIS | 367 > 322 | N/A | 19:M2PFOA | 20 | 8 |
| M8PFOA | EIS | 421 > 376 | N/A | 19: M2PFOA | 20 | 8 |
| M9PFNA | EIS | 472 > 427 | N/A | 19: M2PFOA | 18 | 4 |
| M6PFDA | EIS | 519 > 474 | N/A | 36: M2PFDA | 21 | 9 |
| M7-PFUDA | EIS | 570 > 525 | N/A | 36: M2PFDA | 25 | 11 |
| M2PFTEDA | EIS | 715 > 670 | N/A | 36: M2PFDA | 27 | 17 |
| M2PFHxDA | EIS | 815>770 | N/A | 36:M2PFDA | 30 | 14 |
| MPFDOA | EIS | 615 > 570 | N/A | 36: M2PFDA | 31 | 11 |
| M3HFPO-DA | EIS | 287>169 | N/A | 19: M2PFOA | 15 | 5 |
| M3PFBS | EIS | 302 > 80 | N/A | 29:M4PFOS | 30 | 24 |
| M3PFHxS | EIS | 402 > 80 | N/A | 29:M4PFOS | 24 | 34 |
| M8PFOS | EIS | 507 > 80 | N/A | 29: M4PFOS | 49 | 47 |
| M8FOSA | EIS | 506 > 78 | N/A | 19: M2PFOA | 23 | 33 |
| d9-NEtFOSE | EIS | 639>59 | N/A | 19: M2PFOA | 22 | 74 |
| d7-NMeFOSE | EIS | 623>59 | N/A | 19: M2PFOA | 46 | 52 |
| d5-NEtFOSAA | EIS | 589 > 419 | N/A | 36: M2PFOA | 36 | 20 |
| d5-NEtFOSA | EIS | 531>169 | N/A | 19: M2PFOA | 42 | 26 |

| Analyte | Type | Quantitation transition | Qualifier transition | IS | CV | CE |
|---|---|---|---|---|---|---|
| d3-NMeFOSAA | EIS | 573 > 419 | N/A | 36: M2PFOA | 40 | 18 |
| d3-NMeFOSA | EIS | 515>169 | N/A | 19: M2PFOA | 32 | 28 |
| M3PFBA | surrogate | 216>171 | N/A | | 10 | 8 |
| M2PFOA | surrogate | 415 > 370 | N/A | | 20 | 8 |
| M4PFOS | surrogate | 501 > 80 | N/A | | 49 | 54 |
| M2PFDA | surrogate | 515 > 470 | N/A | | 21 | 9 |

IS = internal standard, CV = collision voltage, CE = collision energy. Tables includes analytes, extracted internal standards, and surrogate recovery standards used in targeted PFAS and TOP assay analyses.

**Table S6.** Results for replicate total fluorine analyses of 6 products.

| Sample ID | Concentration (ppm) | RSD (%)[a] |
|---|---|---|
| R7 | <10, <10, <10, <10 | 0.0 |
| S2 | <10, <10, <10, <10 | 0.0 |
| P3 | 728, 589, 411, 820, 837 | 26 |
| C1 | 1820, 1770, 2120, 2080, 1810 | 8.7 |
| U10 | <10, <10, 12, 19 | n.c. |
| C5 | <10, <10, <10, 12 | n.c. |

[a] RSD=relative standard deviation. n.c.=not calculated. RSD was calculated only for replicates that did not contain a mix of detect and non-detect values.

**Table S7.** Surrogate recoveries of laboratory control samples, product sample precision, and relative percent difference of PFAS concentrations for duplicate pairs of product samples.

| Abbreviation | Avg. LCS[a] recovery (%) | Precision[b] | Median RPD (n pairs)[c] | Avg. surrogate recovery (%) |
|---|---|---|---|---|
| **PFBA** | 104.6 | 5.7 | 5.2 (4) | |
| **PFPeA** | 103.8 | 12.4 | 6.8 (4) | |
| **PFHxA** | 109.2 | 11.7 | 8.8 (4) | |
| **PFHpA** | 104.2 | 4.7 | 7.1 (2) | |
| **PFOA** | 114.6 | 4.5 | 6.5 (2) | |
| **PFNA** | 107.2 | 6.3 | 11 (2) | |
| **PFDA** | 103.6 | 5.7 | 9.5 (2) | |
| **PFUnA** | 104.2 | 7 | 13 (2) | |
| **PFDoA** | 104.2 | 18.2 | 17 (2) | |
| PFTrDA | 114.6 | 17.3 | 21 (1) | |
| **PFTA** | 106.4 | 14.3 | 7.2 (2) | |
| PFHxDA | 108.5 | 15.4 | 12 (1) | |
| PFODA | 78 | 15.8 | 14 (1) | |
| **PFBS** | 104 | 4.7 | 1.2 (1) | |
| PFPeS | 97.6 | 13 | 37 (1) | |
| PFHxS | 104.8 | 11.4 | 2.9 (1) | |
| PFHpS | 107.6 | 9.3 | 18 (1) | |
| **PFOS** | 104.2 | 5.9 | NA | |
| PFNS | 109.2 | 5.9 | NA | |
| PFDS | 116.6 | 15.4 | NA | |
| PFDoDS | 135.5 | 15.4 | NA | |
| 4:2 FTS | 112.8 | 13.9 | NA | |
| 6:2 FTS | 121.2 | 8.8 | NA | |
| 8:2 FTS | 112 | 5.9 | NA | |
| 10:2 FTS | 158.5 | 15.4 | NA | |
| FOSA | 105.8 | 15.4 | NA | |
| NMeFOSA | 112.3 | 26.6 | NA | |
| NEtFOSA | 107.5 | 26.6 | NA | |
| NMeFOSAA | 109.2 | 5.9 | NA | |
| NEtFOSAA | 100.5 | 15.4 | NA | |
| **NMeFOSE** | 239.8 | 27.9 | 44 (1) | |
| **NEtFOSE** | 166.3 | 33.1 | NA | |
| HFPO-DA | 111.2 | 14.1 | NA | |
| ADONA | 100 | 15.4 | NA | |
| 9Cl-PF3ONS | 118 | 15.4 | NA | |

| | | | | |
|---|---|---|---|---|
| 11Cl-PF3OUdS | 124.2 | 15.4 | NA | |
| M3HFPO-DA | 52 | | | 42.07 |
| MPFBA | 88 | | | 74.3 |
| M3PFBS | 92 | | | 71.87 |
| M5PFPEA | 82 | | | 71.65 |
| M2-4:2FTS | 61.4 | | | 154.8 |
| M5PFHXA | 77.8 | | | 66.33 |
| M3PFHXS | 95.6 | | | 79.73 |
| M4PFHPA | 84.6 | | | 75.13 |
| M2-6:2FTS | 69 | | | 142.8 |
| D9-NETFOSE | 9.833 | | | 10.68 |
| D7-NMEFOSE | 12.67 | | | 12.62 |
| D5-NETFOSAA | 87.5 | | | 125.7 |
| D3-NMEFOSAA | 86.5 | | | 113.9 |
| D5-NETFOSA | 13.17 | | | 13.43 |
| D3-NMEFOSA | 10 | | | 11.04 |
| M8FOSA | 45.25 | | | 52.77 |
| M8PFOS | 93.6 | | | 78.63 |
| M8PFOA | 82.2 | | | 74.39 |
| M9PFNA | 80.2 | | | 76.83 |
| M2-8:2FTS | 81 | | | 153.9 |
| M6PFDA | 85.4 | | | 77.34 |
| M7-PFUDA | 89 | | | 83.66 |
| M2PFTEDA | 72.2 | | | 65.3 |
| M2PFHXDA | 100.8 | | | 79.67 |
| MPFDOA | 81 | | | 71.64 |

[a] Lab Control Sample recoveries. [b] Precision was calculated for each analyte by dividing the standard deviation of the results by the average of the samples. [c] Median relative percent difference for detected duplicate pairs. Analytes in bold were detected above the method reporting limit in at least one sample.

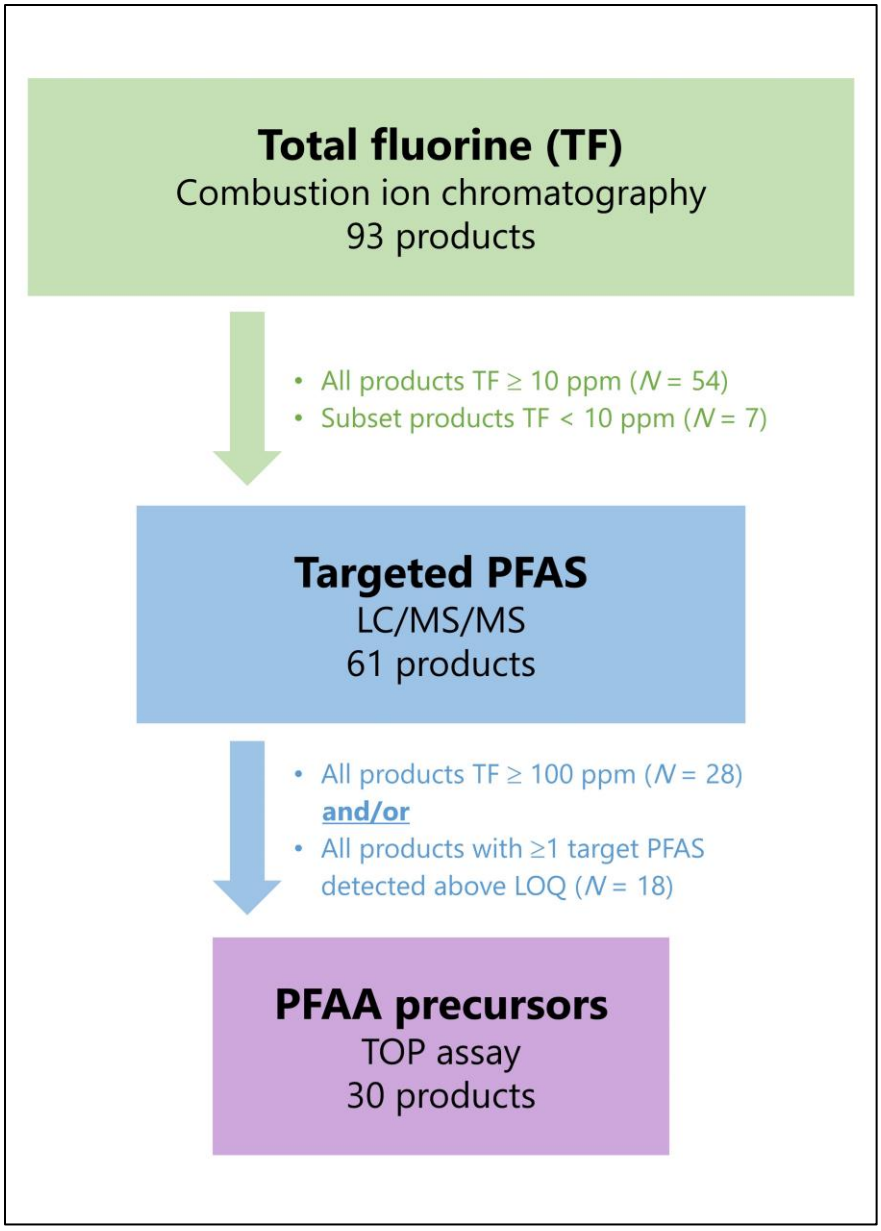


**Figure S1.** Criteria for selecting products for sample analyses.

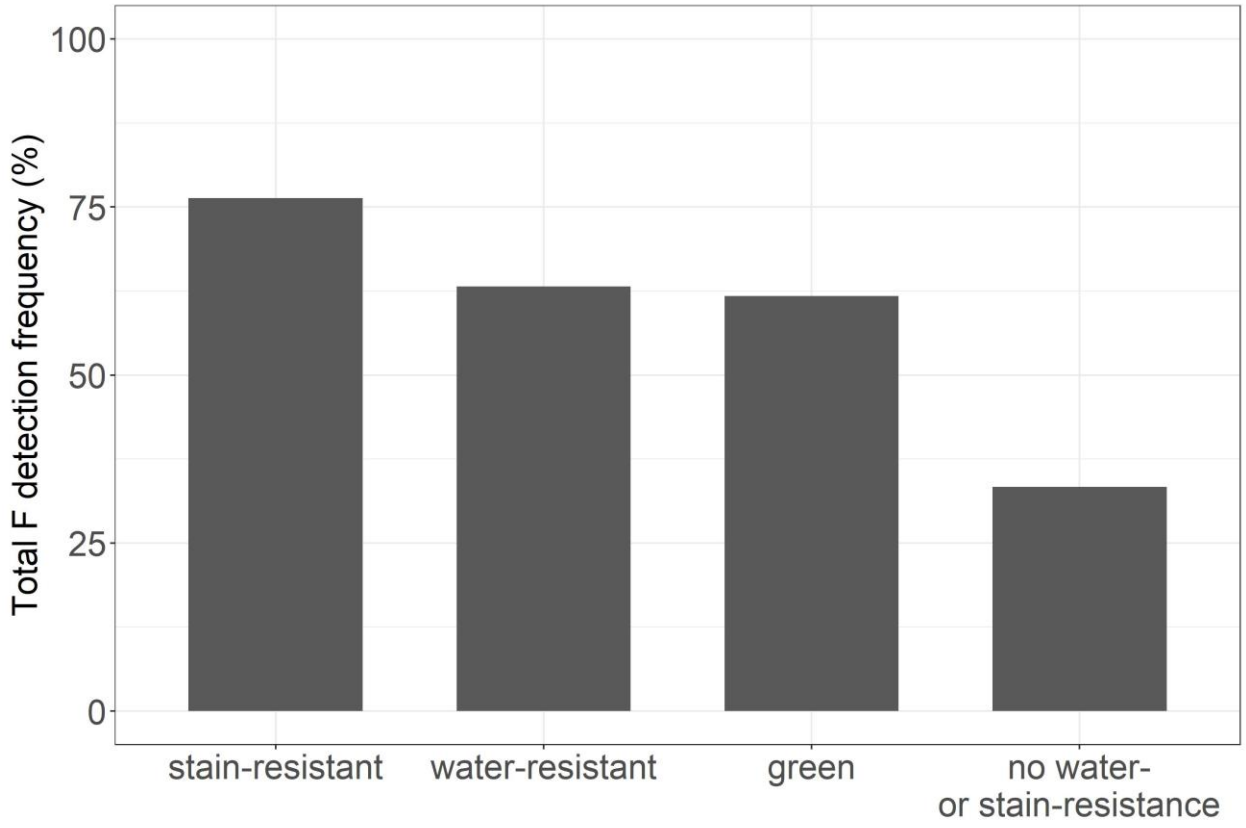


**Figure S2**. Proportion of 93 products with detectable total F (≥10 ppm) according to whether or not product information contained any stain-resistant or water-resistant claims or "green" assurances or certifications.

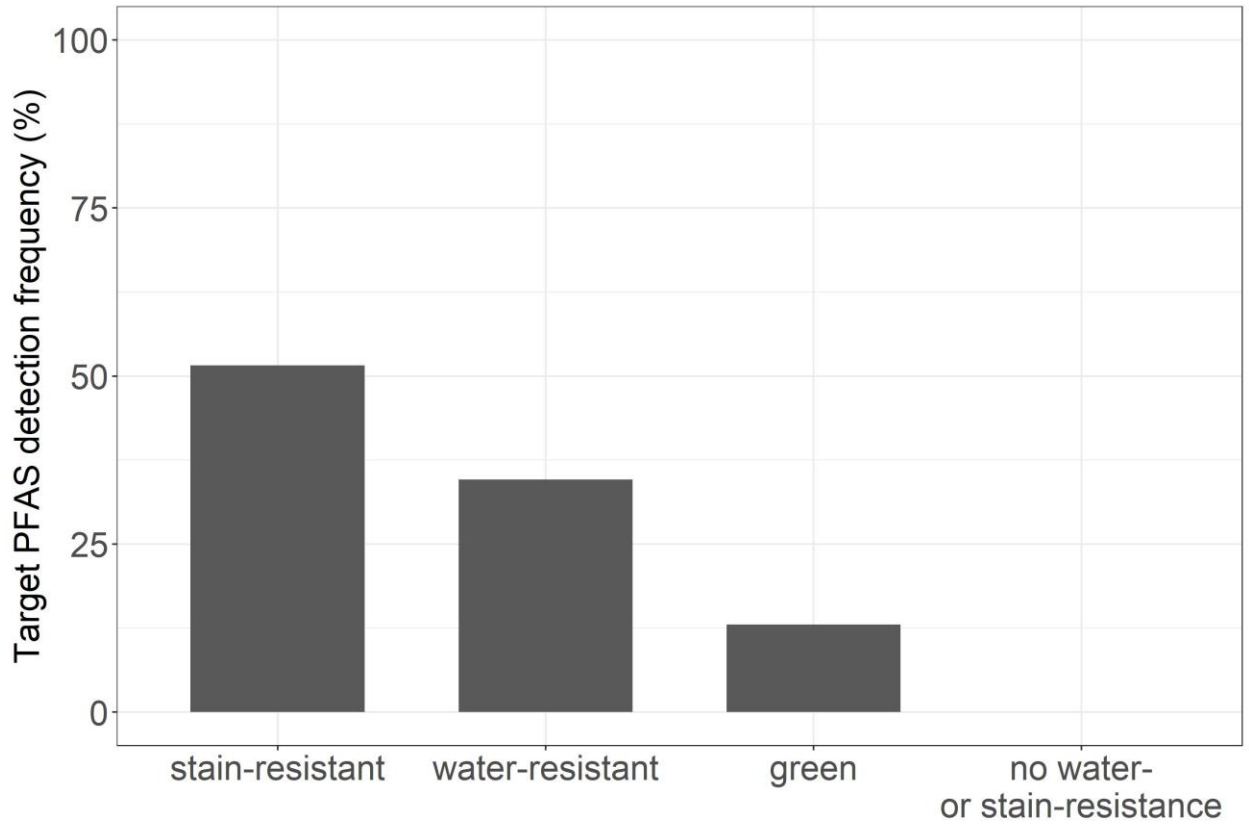


**Figure S3.** Proportion of 61 products with detectable concentrations of at least one PFAS target analyte (above LOQ) according to whether or not product information contained any stain-resistant or water-resistant claims or "green" assurances or certifications.

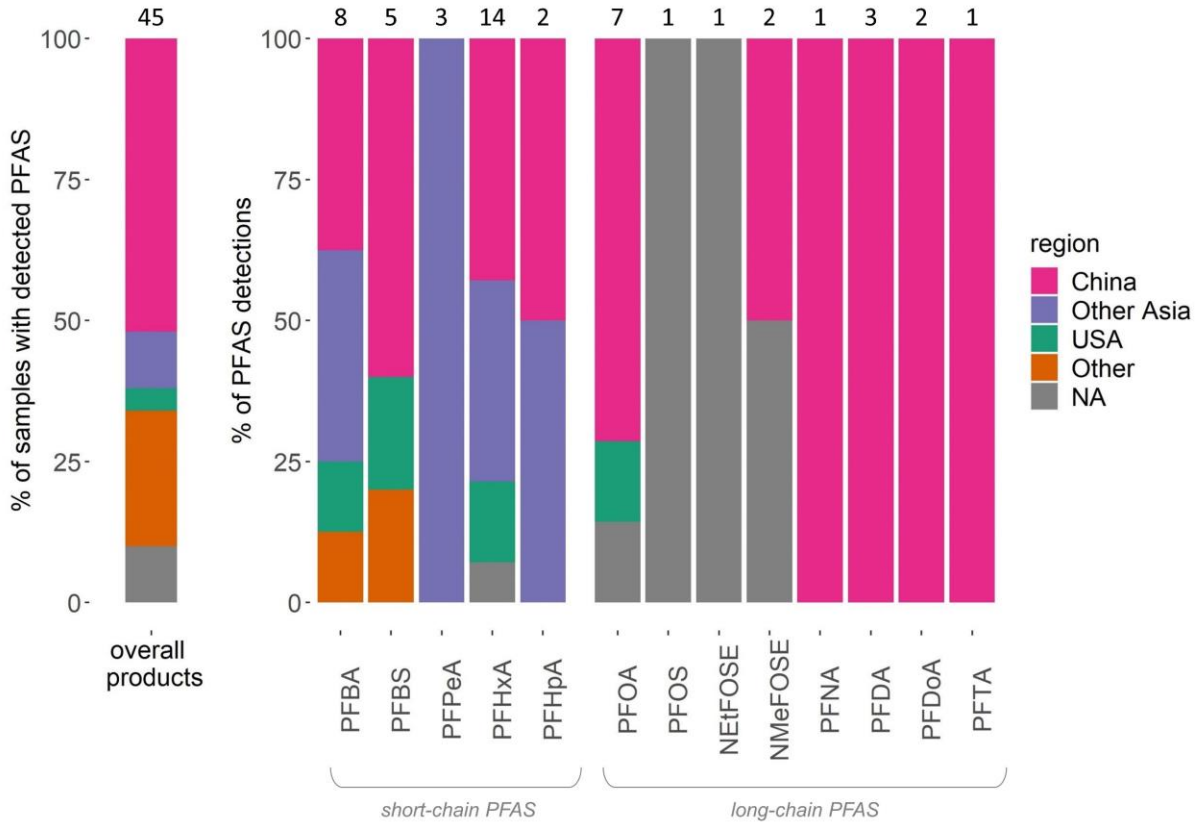


**Figure S4.** Proportion of 45 products with at least one detectable PFAS target analyte (≥LOQ) by region of origin (left) and proportion of each PFAS detected by region of origin (right). Number of samples represented by each bar is shown on top of each bar. All detected PFAS are shown, regardless of quality control measures. Other Asia=Bangladesh, India, Indonesia, Pakistan, Sri Lanka, Vietnam. Other=Egypt, Haiti, Honduras, Kenya, Peru, Turkey. NA = no country of origin indicated.

## REFERENCES

1. Udesky, J. O.; Dodson, R. E.; Perovich, L. J.; Rudel, R. A., Wrangling environmental exposure data: guidance for getting the best information from your laboratory measurements. *Environ Health* **2019,** *18*, (1), 99.