New, revised, or archived: CLG-PFAS2 Appendix 1.00

Title: Flow Chart Specific for FSIS Laboratory Screening, Determination, and Confirmation of PFAS by UHPLC-MS-MS

Effective Date: 02/28/23

Description and purpose of change: None
Flow Chart Specific for FSIS Laboratory Screening Determination and Confirmation of PFAS by UHPLC-MS-MS

Acronym Table
1. QC = Quality Control (sample)
2. MLA = Minimum Level of Applicability
3. Sample = tissue and QCs
4. UHPLC-MS-MS = Ultra-High Performance Liquid Chromatography-Mass Spectrometry

Definition Table
The MLA is the minimum level at which a method has been successfully validated for a residue in a given matrix.

Receive food products from establishments
Prepare homogenized samples
Weigh homogenized muscle or pipet plasma for chemical residue analysis

Extract with solvent
Analyze with UHPLC-MS-MS (up to 16 hours)

Residue results are compared to FSIS’s MLA
If residue estimated level is less than MLA
(-) Not detected

If residue estimated level is greater than or equal to MLA
(+)
Presumptive positive

Prepare tissue, then extract and analyze samples to confirm or quantify presumptive positive residue

Confirmation
If residue confirms as negative
(-) Not detected

If residue confirms as positive

Determination
If residue concentration is less than MLA
(-) Not detected

If residue concentration is greater than or equal to MLA
(+)
Residue detected