



PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)

MINIMUM LABORATORY ANALYTE LIST



Below is the minimum laboratory PFAS analyte list for analysis of deer, drinking water, groundwater, surface water, soil, wastewater effluent, and landfill leachate collected by Michigan's Departments of Environmental Quality (MDEQ), Health and Human Services (MDHHS), Agriculture and Rural Development, and Natural Resources.

This minimum analyte list was developed based on the potential for these chemicals to be found in Michigan, the availability of the chemical standards used for testing, and the ability of available laboratories to test for these PFAS. This list includes PFAS that can be tested for in drinking water using United States Environmental Protection Agency (USEPA) Method 537 Rev.1.1, which is the only method that should be used when analyzing drinking water samples. Other testing methodology may be used to test for PFAS in other media (**not** drinking water). This list is not exhaustive of PFAS in Michigan's environment.

A fish icon (🐟) precedes those compounds that are also currently being tested for in fish tissue.

Analyte Name	Acronym	Fluorinated Carbon Chain Length	Molecular Formula	CAS Number	USEPA Method 537 Rev. 1.1
🐟 Perfluorotetradecanoic acid	PFTeA	C ₁₄	C ₁₃ F ₂₇ COOH	376-06-7	X
🐟 Perfluorotridecanoic acid	PFTriA	C ₁₃	C ₁₂ F ₂₅ COOH	72629-94-8	X
🐟 Perfluorododecanoic acid	PFDoA	C ₁₂	C ₁₁ F ₂₃ COOH	307-55-1	X
🐟 Perfluoroundecanoic acid	PFUnA	C ₁₁	C ₁₀ F ₂₁ COOH	2058-94-8	X
🐟 Perfluorodecanoic acid	PFDA	C ₁₀	C ₉ F ₁₉ COOH	335-76-2	X
🐟 Perfluorononanoic acid	PFNA	C ₉	C ₈ F ₁₇ COOH	375-95-1	X
🐟 Perfluorooctanoic acid	PFOA	C ₈	C ₇ F ₁₅ COOH	335-67-1	X
🐟 Perfluoroheptanoic acid	PFHpA	C ₇	C ₆ F ₁₃ COOH	375-85-9	X
🐟 Perfluorohexanoic acid	PFHxA	C ₆	C ₅ F ₁₁ COOH	307-24-4	X
🐟 Perfluoropentanoic acid	PFPeA	C ₅	C ₄ F ₉ COOH	2706-90-3	
🐟 Perfluorobutanoic acid	PFBA	C ₄	C ₃ F ₇ COOH	375-22-4	
🐟 Perfluorodecanesulfonic acid	PFDS	C ₁₀	C ₁₀ F ₂₁ SO ₃ H	335-77-3	
Perfluorononanesulfonic acid	PFNS	C ₉	C ₉ F ₁₉ SO ₃ H	68259-12-1	
🐟 Perfluorooctanesulfonic acid	PFOS	C ₈	C ₈ F ₁₇ SO ₃ H	1763-23-1	X
Perfluoroheptanesulfonic acid	PFHpS	C ₇	C ₇ F ₁₅ SO ₃ H	375-92-8	
🐟 Perfluorohexanesulfonic acid	PFHxS	C ₆	C ₆ F ₁₃ SO ₃ H	355-46-4	X
Perfluoropentanesulfonic acid	PFPeS	C ₅	C ₅ F ₁₁ SO ₃ H	2706-91-4	

**Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
Minimum Laboratory Analyte List**

Analyte Name	Acronym	Fluorinated Carbon Chain Length	Molecular Formula	CAS Number	USEPA Method 537 Rev. 1.1
 Perfluorobutanesulfonic acid	PFBS	C _{40MG}	C ₄ F ₉ SO ₃ H	375-73-5	X
 Perfluorooctanesulfonamide	PFOSA	C ₈	C ₈ F ₁₇ SO ₂ NH ₂	754-91-6	
Fluorotelomer sulphonic acid 8:2	FtS 8:2	C ₈	C ₈ F ₁₇ CH ₂ CH ₂ SO ₃	39108-34-4	
Fluorotelomer sulphonic acid 6:2	FtS 6:2	C ₆	C ₆ F ₁₃ CH ₂ CH ₂ SO ₃	27619-97-2	
Fluorotelomer sulphonic acid 4:2	FtS 4:2	C ₄	C ₄ F ₉ CH ₂ CH ₂ SO ₃	757124-72-4	
2-(N-Ethylperfluorooctanesulfonamido) acetic acid	N-EtFOSAA	C ₈	C ₈ F ₁₇ SO ₂ N(C ₂ H ₅)CH ₂ COOH	2991-50-6	X
2-(N-Methylperfluorooctanesulfonamido) acetic acid	N-MeFOSAA	C ₈	C ₈ F ₁₇ SO ₂ N(CH ₃)CHCOOH	2355-31-9	X

Laboratories Providing PFAS Analytical Services

(The provision of the following links does not constitute an endorsement of the firms that may be identified by those links, nor is it a statement against any firm not on the lists generated. Additionally, the capacity of any identified laboratories to provide services consistent with the MDEQ recommendations above has not been verified and these details should be addressed prior to contracting with any laboratory.)

- The **U.S. Environmental Protection Agency (US EPA)** has a list of laboratories approved under the UCMR3 program using US EPA Method 537 Rev. 1.1 for PFAS in drinking water: www.epa.gov/dwucmr/third-unregulated-contaminant-monitoring-rule
- The **U.S. Department of Defense, Environmental Laboratory Accreditation Program (US DoD ELAP)** maintains a list of labs for the determination of PFAS in various environmental media other than drinking water on the Defense Environmental Network Information Exchange (DENIX) server: www.denix.osd.mil/edqw/accreditation/accreditedlabs/

Contact Information

Questions regarding PFAS in general, contact:

- **MDHHS Toxics and Health Hotline:**
800-648-6942
- **MDEQ Environmental Assistance Center**
800-662-9278

Questions regarding laboratory information, contact:

- **MDHHS Toxics and Health Hotline:**
800-648-6942
- **MDEQ Drinking Water Analysis Laboratory**
517-335-8184