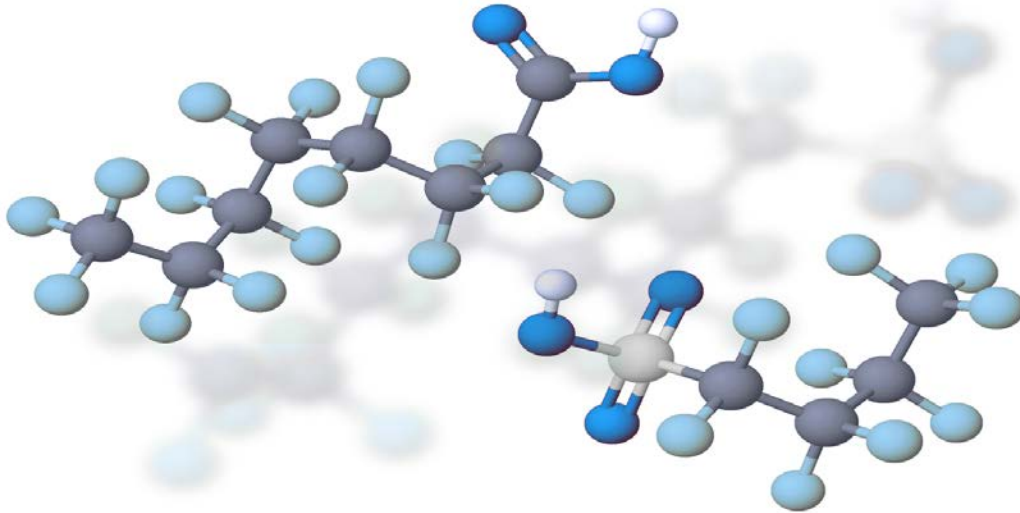


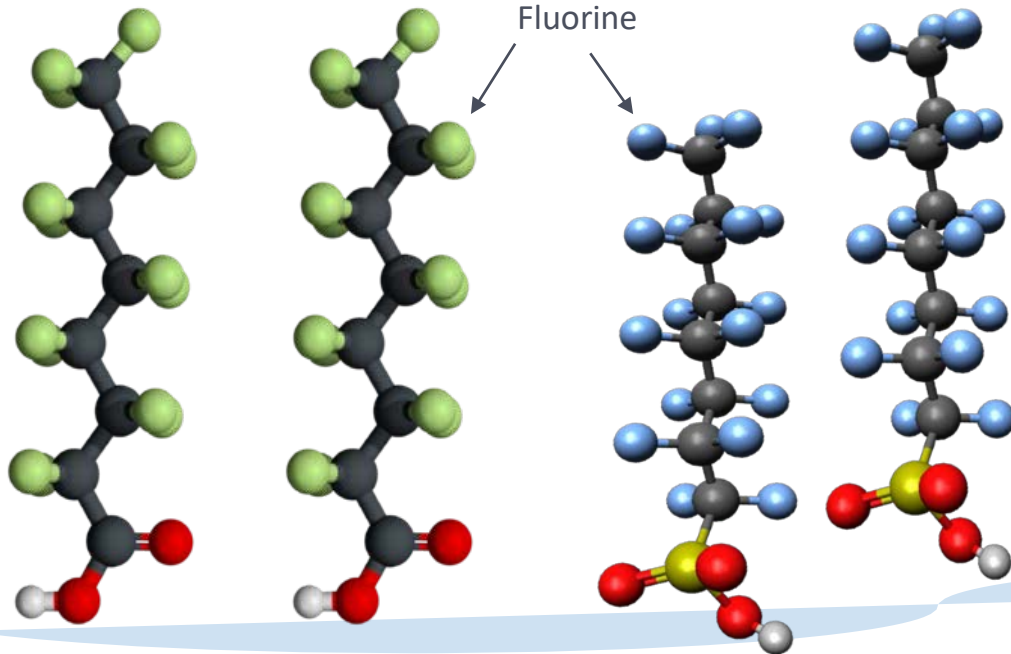
EPA PFAS Action Plan

March 6, 2019



United States
Environmental Protection
Agency

Per- and Polyfluoroalkyl Substances (PFAS)



Perfluorooctanoic acid (PFOA)

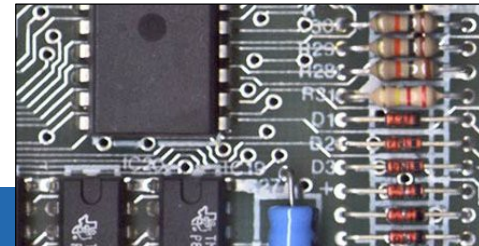
Perfluorooctanesulfonic acid (PFOS)

➤ A class of "*man-made*" chemicals

- Chains of carbon (C) atoms surrounded by fluorine (F) atoms
 - **Water-repellent** (hydrophobic)
 - **Stable C-F bond**
- Thousands of PFAS chemicals beyond PFOA and PFOS

Applications: Home, Business & Industry

- Cookware and Food Packaging
- Polishes, waxes, and paints
- Textiles, Clothing
- Cleaning products
- Electronics and plating manufacturing
- Oil and mining for enhanced recovery
- Performance chemicals
- Firefighting Foam



Sources of PFAS in the Environment



- Direct release of PFAS or PFAS products
 - Use of aqueous film forming foam (AFFF) in training and emergency response



- Indirect release from disposal of consumer and industrial PFAS products
 - landfills and leachates
 - wastewater treatment effluent
 - land application of biosolids



Reasons for Concern

- Possible carcinogen
- Evidence that exposure to certain PFAS may lead to adverse health effects
- Persistent in the environment and human body
- Exposure is widespread



PFAS Contamination – Drinking Water

- UCMR3: EPA Data Collection on Occurrence in Drinking Water (2013-2015)
 - Nationally representative data for six PFAS chemicals, including PFOA/PFOS
- Revised Drinking Water Health Advisories (HA) for PFOA and PFOS (2016)
 - Lowered HA (provisional short-term) to HA (lifetime) of 0.07 $\mu\text{g}/\text{L}$ (70ppt) individual/combined
 - Region 9: 15 (25%) of 59 systems nationwide detected >70 ppt

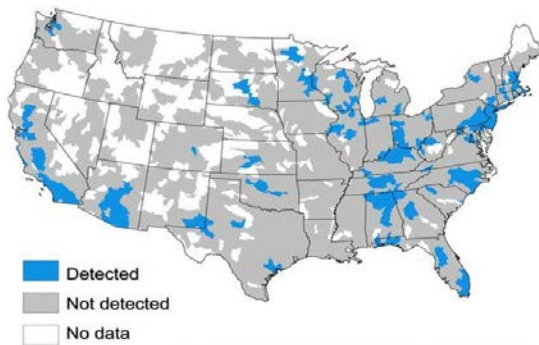


Image from: Hu XC et al., Environmental Science & Technology Letters, 2016

PFAS Summit & Community Engagement

- **May 22-23, 2018 PFAS National Leadership Summit**
- **Former Administrator Scott Pruitt announced four actions by EPA**
 - Evaluate need for an enforceable standard for PFOA and PFOS in drinking water.
 - Propose designating PFOA and PFOS as “hazardous substances” under CERCLA
 - Develop recommended groundwater cleanup levels for PFOA and PFOS by Fall 2018.
 - Develop toxicity values for GenX and PFBS by Summer 2018.
- **EPA Community Engagements**
- **Develop a PFAS Management Plan by 12/31/2018**



PFAS Action Plan

- Represents EPA's first multi-media, multi-program, national research, management and risk communication plan to address a challenge like PFAS.
- Responds to extensive public input the Agency received over the past year during the PFAS National Leadership Summit, multiple community engagements, and through the public docket.
- Provides the necessary tools to assist states, tribes, and communities in addressing PFAS.



Drinking Water

- EPA intends to establish a Maximum Contaminant Level (MCL) for PFOA and PFOS—two of the most well-known and prevalent PFAS and is moving forward with the regulatory process.
- Agency is also gathering and evaluating information to determine if regulation is appropriate for other chemicals in the PFAS family.
- EPA is committed to following the Safe Drinking Water Act process for evaluating and establishing drinking water standards for PFAS chemicals.

Cleanup

- The EPA will facilitate cleanup efforts by providing groundwater cleanup recommendations.
- The EPA is initiating the regulatory development process for listing certain PFAS as hazardous substances.

Monitoring & Research

- EPA will propose nationwide drinking water monitoring for PFAS under the next UCMR monitoring cycle (UMCR5 – 2023).
- EPA is rapidly expanding the scientific foundation for understanding and managing risk from PFAS.
- The research is organized around understanding toxicity and exposure, assessing risk, and identifying effective treatment and remediation actions.



Toxics

- EPA is considering the addition of PFAS chemicals to the Toxics Release Inventory
- EPA is issuing a supplemental proposal to guard against the unreviewed reintroduction and new use, through domestic production or import, of certain PFAS chemicals in the United States.



Enforcement and Risk Communications

- EPA uses enforcement tools, when appropriate, to address PFAS exposure in the environment and assist states in enforcement activities.
- EPA will work collaboratively to develop a risk communication toolbox that includes multi-media materials and messaging for federal, state, tribal, and local partners to use with the public.



Next Steps

- EPA will continue to coordinate with multiple entities, including other federal agencies, states, tribes, local governments, water utilities, industry, and the public to implement the plan.
- EPA will provide updates on actions outlined in the plan on the Agency's website.
- <https://epa.gov/pfas>
- <https://www.epa.gov/pfas/epas-pfas-action-plan>





Per- and Polyfluoroalkyl Substances (PFAS)

CONTACT US

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Supporting States, Tribes, and Communities on PFAS

Through EPA's Technical Support Centers, states, tribes, and local governments request help from EPA in identifying, monitoring, cleaning up, and reducing PFAS occurrence at sites around the country. [Learn more.](#)

1

2

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"We are moving forward with several important actions, including the maximum contaminant level process, that will help affected communities better monitor, detect, and address PFAS."

- EPA Acting Administrator,
Andrew Wheeler

Basic Information

- [What are PFAS?](#)
- [Why are PFAS important?](#)
- [How people are exposed?](#)
- [Are there health effects?](#)
- [What is the difference between PFOA, PFOS and GenX?](#)

EPA Actions to Address PFAS

- [EPA actions](#)
- [National leadership summit and engagement](#)
- [EPA research](#)
- [Laws and regulations](#)
- [Communication and outreach](#)

Tools and Resources

- [EPA data and tools](#)
- [State information](#)
- [Site-specific resources](#)
- [Related Information](#)
- [Drinking Water Treatment](#)
- [ATSDR PFAS Toxicological Profile Key Messages](#)

[Contact Us](#) to ask a question, provide feedback, or report a problem.

Questions?