



The Current Federal PFAS Regulatory Landscape

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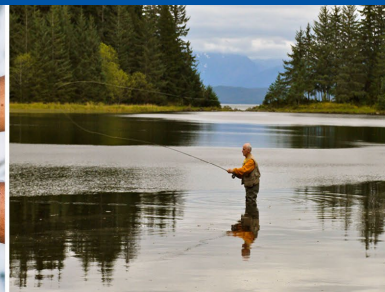
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February 26, 2024



26th California Unified Program
Annual Training Conference
February 26-29, 2024

Poll



Overview

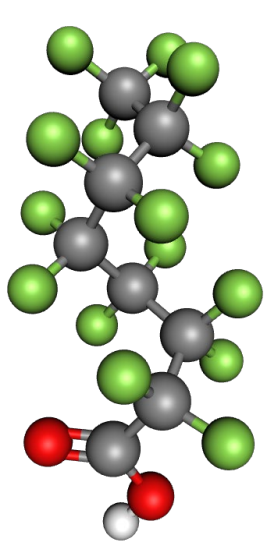
- **PFAS Background**
 - General PFAS naming, classification, and chemistry
 - Precursors and Replacement Chemistry
 - Where are PFAS Found?
- **EPA PFAS Regulations, Rulemaking and Policies**
 - PFAS Strategic Roadmap
 - Final Rules
 - Proposed Rules and Other Actions
- **Q&A**

*Knowledge checks
along the way!*

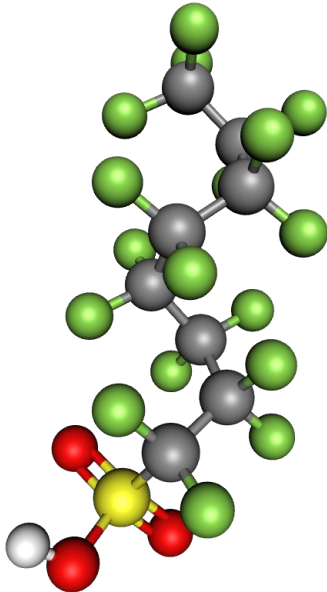
PFAS Background

General PFAS Naming, Classification, and Chemistry

What Are Per- and Polyfluoroalkyl Substances (PFAS) and Why are We Concerned?



Perfluorooctanoic acid (PFOA)



Perfluorooctanesulfonic acid (PFOS)

PFAS captures a large class of synthetic chemicals.

- Chains of carbon atoms surrounded by fluorine atoms.
- Wide variety of chemical structures.

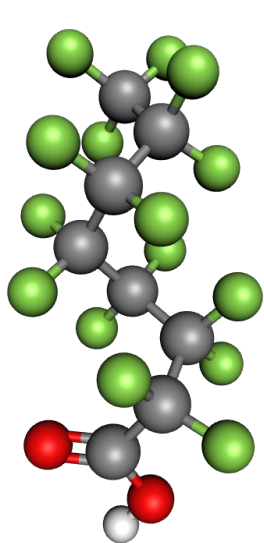
Used in homes, businesses, and industry since the 1940s.

- Used by a number of industries and found in many consumer products.
- Detected in soil, water, fish, and air samples.
- Most people have been exposed to PFAS.

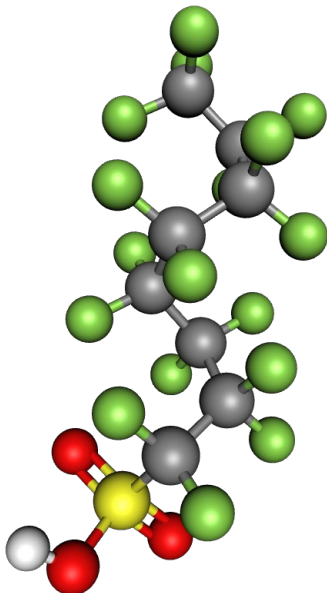
Known or suspected toxicity.

- Some are relatively well understood; many others are not.
- Resist decomposition in the environment and in the human body.

What does PFAS stand for again?



*Perfluorooctanoic
acid (PFOA)*

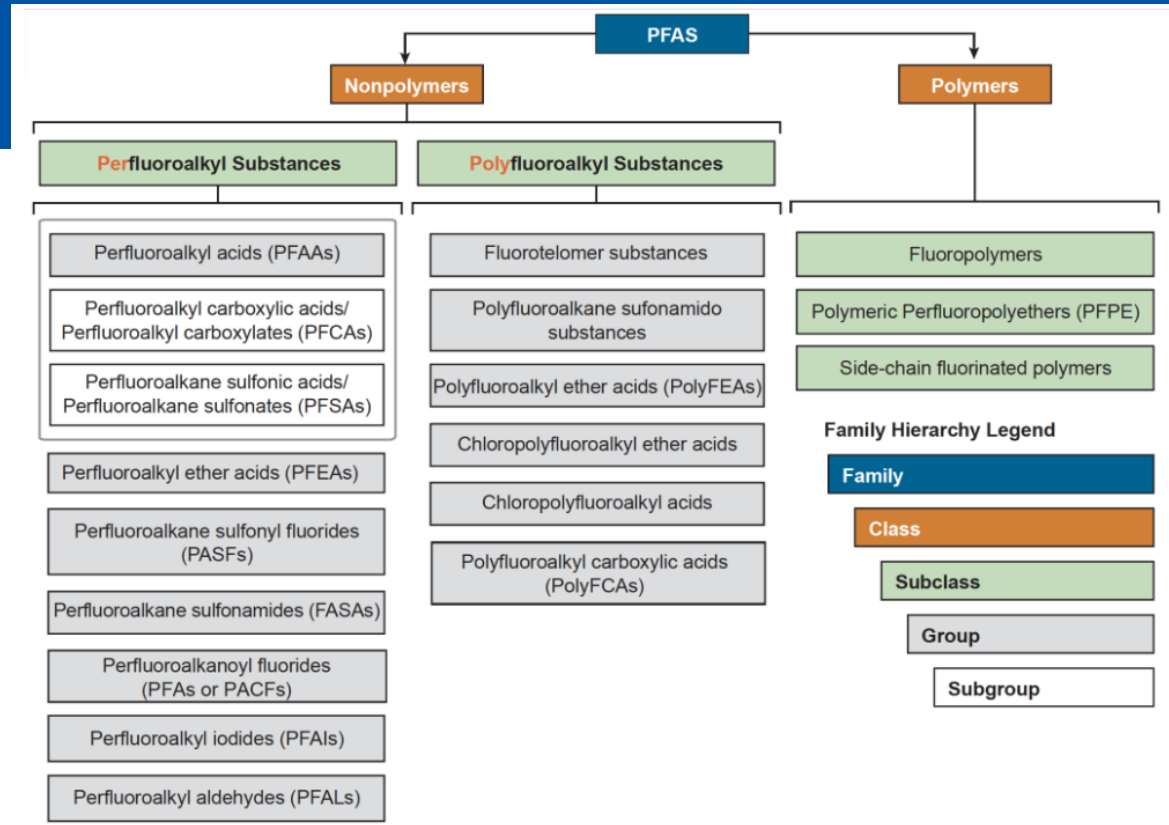


*Perfluorooctanesulfonic
acid (PFOS)*

- PFAS = Per- and Polyfluoroalkyl substancess
- The acronym PFAS is already plural and refers to a group of thousands of compounds/chemicals
- PFOS and PFOA are examples of individual PFAS
- Formerly referred to by other abbreviations such as PFC (perfluorocarbons), but PFAS is the most inclusive acronym

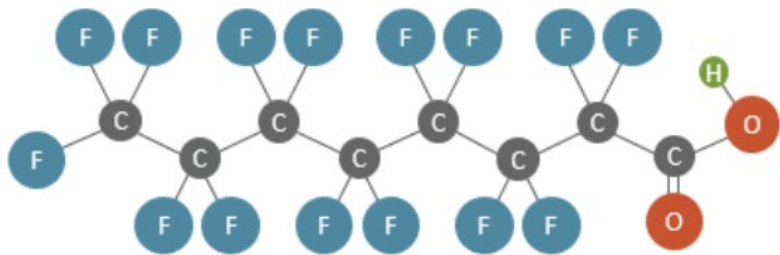
PFAS Family Tree

- Perfluorinated: fully fluorinated alkyl carbon chain
- Includes PFOS and PFOA
- Also perfluorinated: PFBS, PFNA, PFHxS and HFPO-DA (GenX Chemicals)
- Primary PFAS for which federal or state health-based guidance values have been established.
- Tend to drive site investigation and remediation decisions

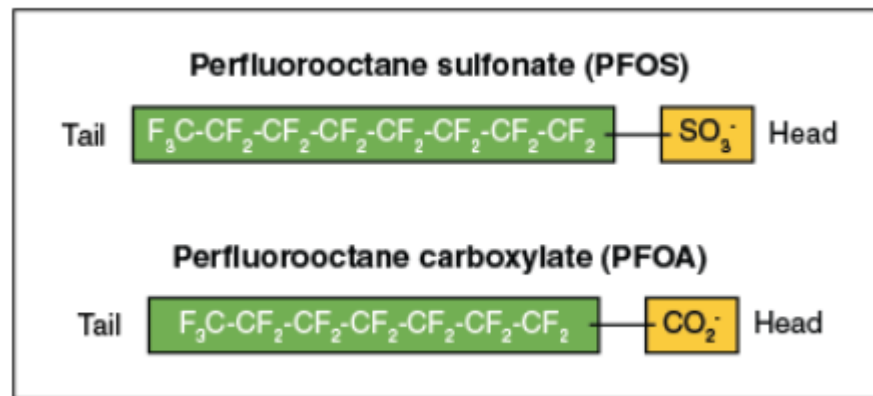


Perfluoroalkyl Acid (PFAA) Structure

- PFAA molecules are generally made up of a chain (or tail) of two or more **carbon atoms** with a charged **functional group** (or head) at one end.
- **Fluorine atoms** are attached to all possible bonding sites along the carbon chain of the tail except for one bonding site at the end of the tail where the functional group head is attached



PFOA (Acid Form)



Perfluoroalkyl Acid (PFAA) Naming

Many commonly detected PFAAs denoted using the structural shorthand acronym:

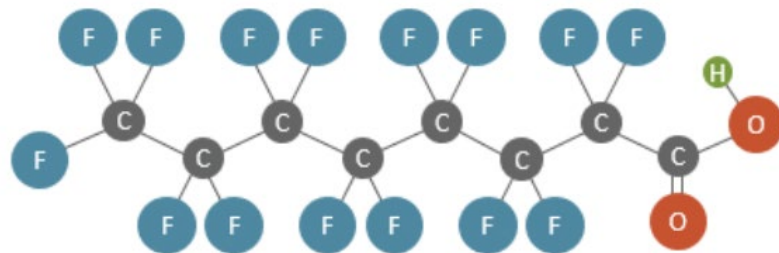
PFXY:

PF = perfluoro

X = the carbon chain (tail) length, using the same naming conventions as hydrocarbons

Y = the functional group (head)

perfluorooctanoic acid



Perfluoroalkyl Acid (PFAA) Naming

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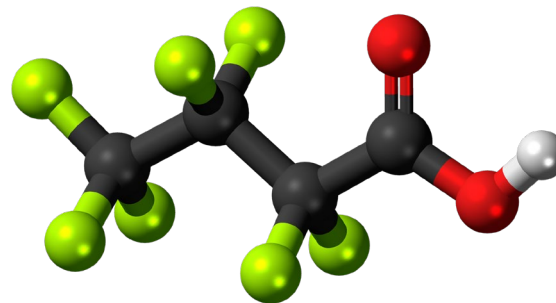
PFXY:

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perfluorobutanoic acid



Perfluoroalkyl Acid (PFAA) Naming

Many commonly detected PFAAs denoted using the structural shorthand acronym:

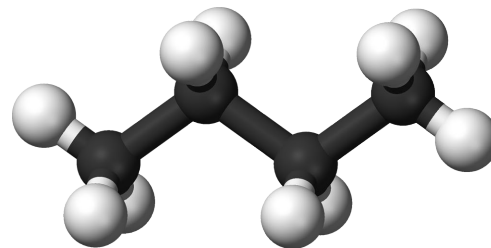
PFXY:

PF = perflouro

X = the carbon chain (tail) length, using the same naming conventions as hydrocarbons

Y = the functional group (head)

butane



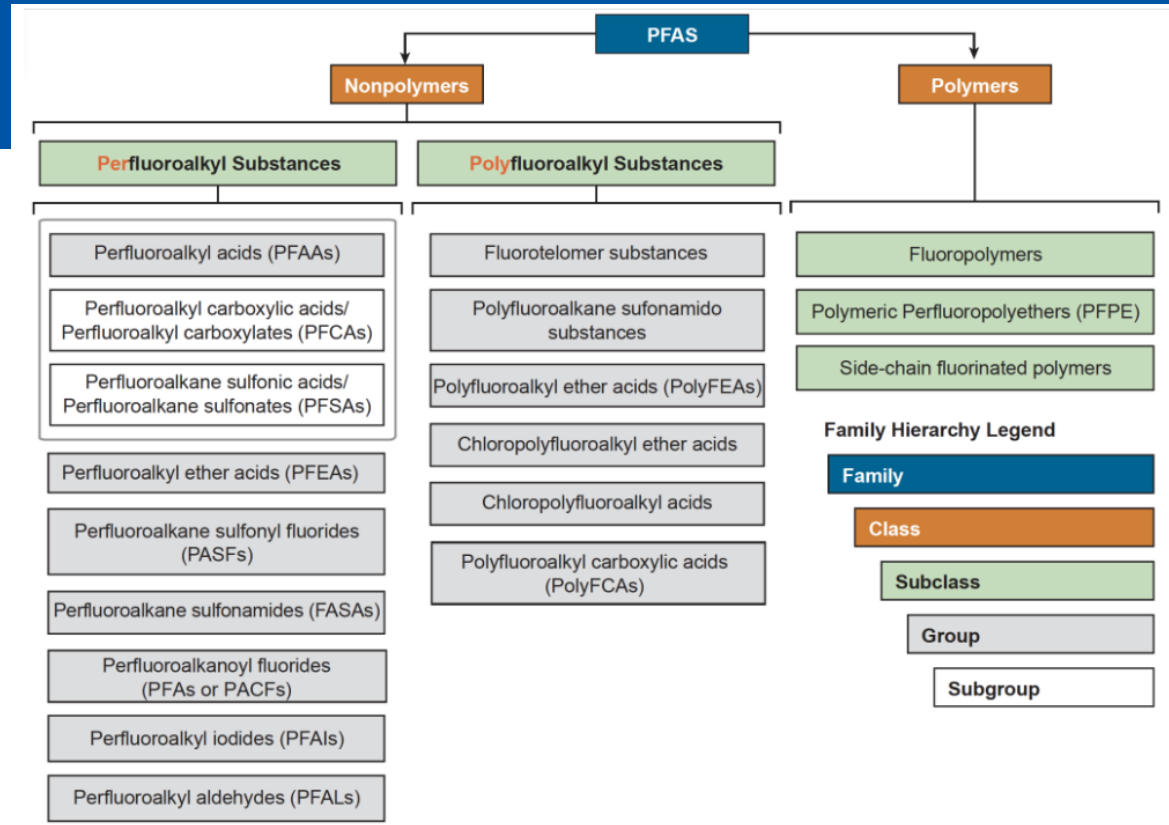
PFAA Structure and Naming

- Long chain: PFCAs with eight or more carbons (seven or more perfluorinated), PFSA with six or more carbons (six or more perfluorinated)
- Short chain: PFCAs with seven or fewer carbons (six or fewer perfluorinated), PFSA with five or fewer carbons (five or fewer perfluorinated)

Number of Carbons	4	5	6	7	8	9	10	11	12
PFCAs	Short-chain PFCAs				Long-chain PFCAs				
	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUnA	PFDoA
PFSAs	PFBS	PFPeS	PFHxS	PFHpS	PFOS	PFNS	PFDS	PFUnS	PFDoS
	Short-chain PFSAs		Long-chain PFSAs						

PFAS Family Tree

- polyfluorinated: not fully fluorinated
- All hydrogen atoms attached to at least one, but not all, carbons have been replaced with fluorine atoms
- Includes fluorotelomer sulfonates (FTS)
- The nonfluorinated bond in the molecule creates a “weak point” that makes the molecule susceptible to degradation



PFAS Background

Precursors and Replacement Chemistry

Precursors

- Some PFAS can degrade to PFAAs either biotically or abiotically
- The PFAA degradation products are sometimes referred to as “terminal” PFAAs
- In general, PFAS with short chain chemistries do not degrade to PFAS with long chain chemistries
- The terminal PFAAs degradation products, which include the PFAAs for which most federal and state health-based guidance values have been established, are essentially non-degradable under normal environmental conditions
- There are both per- and polyfluorinated substances that are potential PFAA precursors
- PFAS precursors in the environment can degrade to other PFAS

Source: ITRC (Interstate Technology & Regulatory Council). 2023. PFAS Technical and Regulatory Guidance Document and Fact Sheets PFAS-1. Washington, D.C.: Interstate Technology & Regulatory Council, PFAS Team. <https://pfas-1.itrcweb.org/>.

Replacement Chemistry

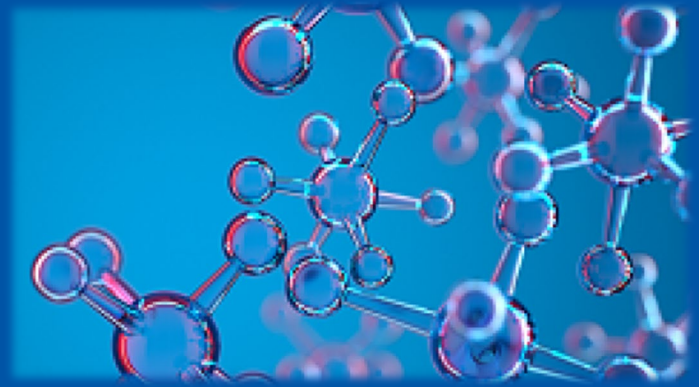
- Over the decades, some PFAS have been phased out of production in favor of “replacement” PFAS
- Examples:
 - PFAS with short chain chemistries replacing those with long chain chemistries
 - HFPO-DA (hexafluoropropylene oxide dimer acid), to replace PFOA as a surfactant and polymerization aid in the manufacture of PTFE (polytetrafluoroethylene). HFPO-DA is often referred by the trade name GenX, which refers to the processing aid technology.
 - Several voluntary phase outs of long chain PFAS have occurred since 2000
 - 3M phase out of PFOS and similar chemistries starting in 2000
 - EPA 2010/2015 PFOA Stewardship Program to phase out PFOA precursors, PFOA and related long chain PFAS

Where are PFAS Found?



- Most people in the US have been exposed to some PFAS
- PFAS may be present in many forms
- EPA researchers and partners across the country are working to understand how much PFAS people are exposed to and how

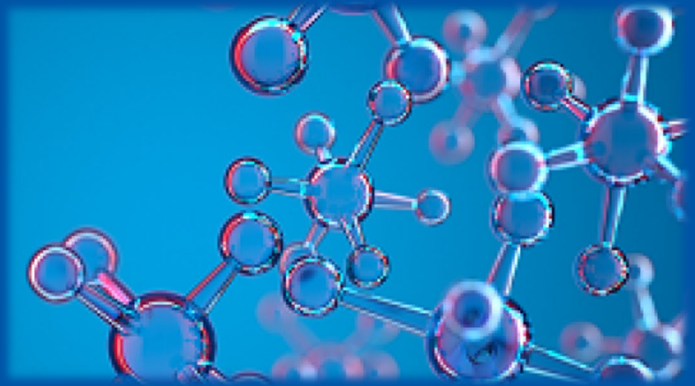
Knowledge Check 1



Q: Select the most accurate and grammatically correct statement.

- a) There are thousands of PFAS, including PFOS and PFOA
- b) There are thousands of PFAS compounds, including PFOS and PFOA
- c) There are thousands of PFOA, including PFAS and PFOS

Knowledge Check 1

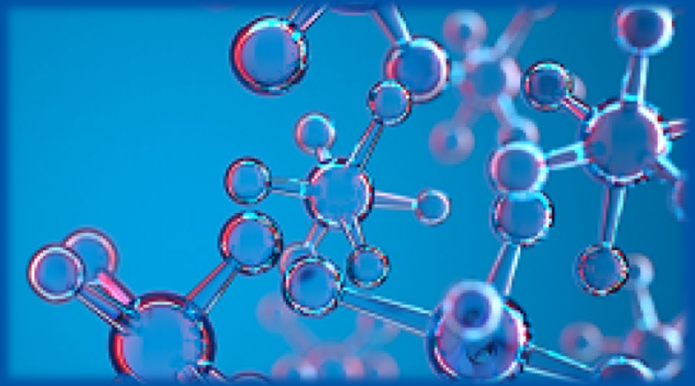


Q: Select the most accurate and grammatically correct statement. A: a

- a) There are thousands of PFAS, including PFOS and PFOA
- b) There are thousands of PFAS compounds, including PFOS and PFOA
- c) There are thousands of PFOA, including PFAS and PFOS

PFAS is already plural. PFOS and PFOA are two of the most widely used and studied PFAS

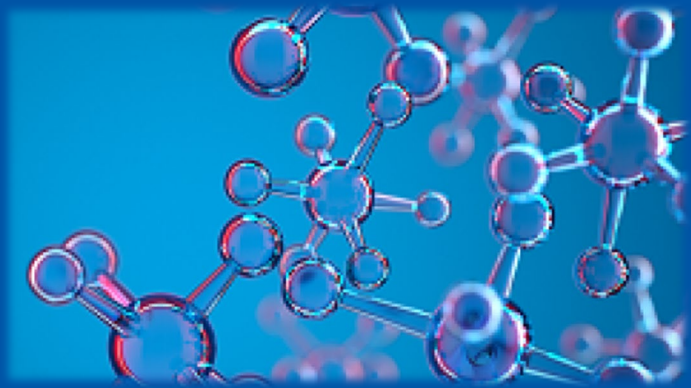
Knowledge Check 2



Q: What is meant by the term “precursor” with respect to PFAS?

- a) Precursor PFAS were the first to be manufactured in the United States
- b) Precursor PFAS can degrade to other PFAS, often PFAAs like PFOS or PFOA
- c) Precursor PFAS are usually the first to be detected in the environment after a PFAS release

Knowledge Check 2



Q: What is meant by the term “precursor” with respect to PFAS? A: b

- a) Precursor PFAS were the first to be manufactured in the United States
- b) Precursor PFAS can degrade to other PFAS, often PFAAs like PFOS or PFOA
- c) Precursor PFAS are usually the first to be detected in the environment after a PFAS release

“Precursor” PFAS are per- or polyfluorinated and can degrade to “terminal” PFAS including PFAAs such as PFOS and PFOA.

Federal PFAS Regulations, Rulemakings and Policies

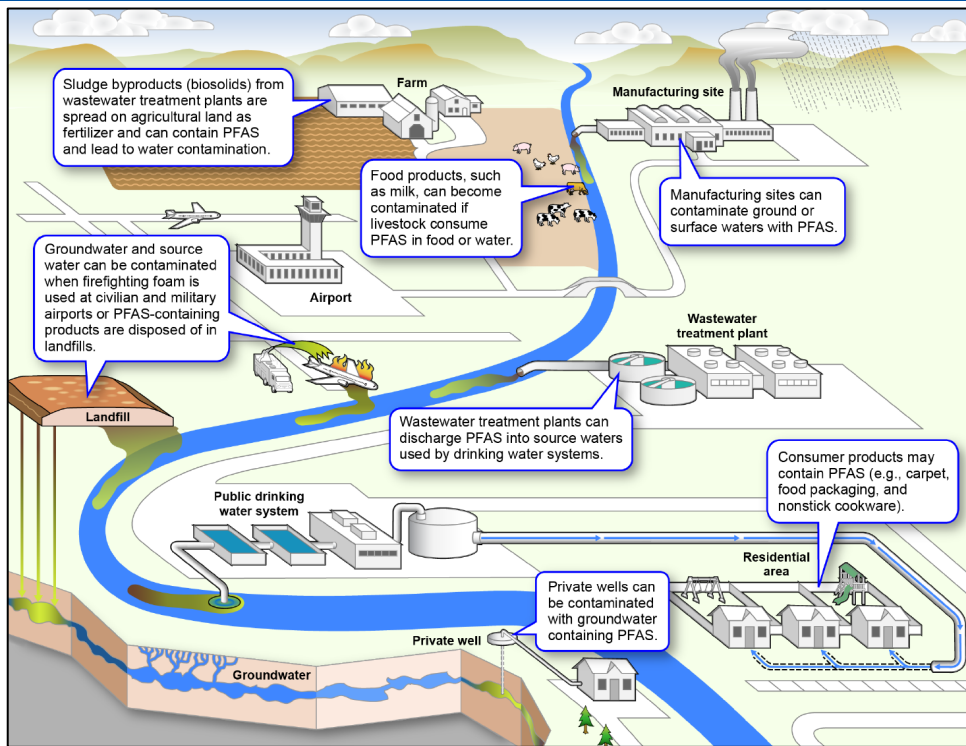
EPA's PFAS Strategic Roadmap

EPA's PFAS Strategic Roadmap: Commitments to Action 2021-2024

- EPA Administrator Michael Regan established the EPA Council on PFAS in April 2021.
- The Council developed the PFAS Strategic Roadmap, released in October 2021 – a strategic, whole-of-EPA approach to protect public health and the environment from PFAS.
- The Roadmap:
 - Includes timelines for concrete actions from 2021-2024;
 - Fills a critical gap in federal leadership;
 - Supports states' ongoing efforts; and
 - Builds on the Biden-Harris Administration's commitment to restore scientific integrity.



PFAS Lifecycle and EPA's Approach



EPA's approach is centered around the following principles:

- Consider the Lifecycle of PFAS.
- Get Upstream of the Problem.
- Hold Polluters Accountable.
- Ensure Science-Based Decision-Making.
- Prioritize Protection of Disadvantaged Communities.

EPA's Goals in the Strategic Roadmap

RESTRICT

Pursue a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment.

REMEDiate

Broaden and accelerate the cleanup of PFAS contamination to protect human health and ecological systems.

RESEARCH

Invest in research, development, and innovation to increase understanding of

- Methods for measuring PFAS in the environment
- Assessing human health and environmental risks
- Evaluating and developing technologies for reducing PFAS

Key PFAS Roadmap Accomplishments: 2023



EPA's PFAS Strategic Roadmap: Second Annual Progress Report

December 2023

- **Making PFAS use safer** through robust chemical reviews and improving data
- **Holding polluters accountable** through enforcement and compliance and hazardous-substance designations
- **Protecting America's drinking water** through national drinking water standards and nationwide monitoring
- **Deploying Bipartisan Infrastructure Law funding** to address PFAS in water
- **Turning off the tap for industrial polluters** using Clean Water Act authorities
- **Advancing the science** of PFAS toxicity, exposures, and methods
- **Incorporating equity and environmental justice** through analyses, funding, data, and tools
- **Listening to and learning from communities**



Key Roadmap Actions: Research and Development

Develop and validate methods to detect and measure PFAS

RESEARCH

Advance the science to assess human health and environmental risks

RESEARCH

Evaluate and develop technologies for reducing PFAS in the environment

RESEARCH

REMEDiate

Key Roadmap Actions: Ensuring Chemical Safety

Deepen our understanding of PFAS categories through the National PFAS Testing Strategy

RESEARCH

RESTRICT

Strengthen EPA oversight over both new and existing PFAS

RESTRICT

Improve data on PFAS uses and releases

RESEARCH

RESTRICT

Reduce PFAS in federal procurement

RESTRICT

Key Roadmap Actions: Protecting our Water

Set enforceable limits for PFAS in drinking water

RESTRICT

Improve PFAS drinking-water data through monitoring, toxicity assessments, and health advisories

RESEARCH

Develop technology-based PFAS limits for industrial dischargers

RESTRICT

Address PFAS in Clean Water Act permitting, analytical methods, water quality criteria, and fish advisories

RESEARCH

RESTRICT

Evaluate risks of PFAS in biosolids

RESEARCH

Key Roadmap Actions: Cleaning Up PFAS Contamination and Addressing PFAS Air Emissions

Develop regulations to designate PFAS as CERCLA hazardous substances

REMEDiate

Take regulatory action to tackle PFAS under RCRA

REMEDiate

Update research and guidance on PFAS destruction and disposal

RESEARCH

REMEDiate

Build the technical foundation for potential Clean Air Act regulation

RESEARCH

RESTRICT

Cross-Program Actions

**Engage
directly with
affected
communities**

**Use
enforcement
tools to
identify and
address
PFAS
releases**

**Report on
EPA's
progress and
communicate
PFAS risks**

**Coordinate
with federal
partners on
policy
strategies**

Bipartisan Infrastructure Law and PFAS

The Bipartisan Infrastructure Law makes transformational investments in America's water infrastructure. It provides \$10 billion to invest in communities impacted by PFAS and other emerging contaminants, including:

\$4 billion

Drinking Water State Revolving Fund

\$1 billion

Clean Water State Revolving Fund

\$5 billion

**Small or Disadvantaged Communities
Drinking-Water Grants**

Learn More about the Second Annual PFAS Roadmap Progress Report

Learn More:

[Second Annual PFAS Roadmap Progress Report](#)

Issued December 2023

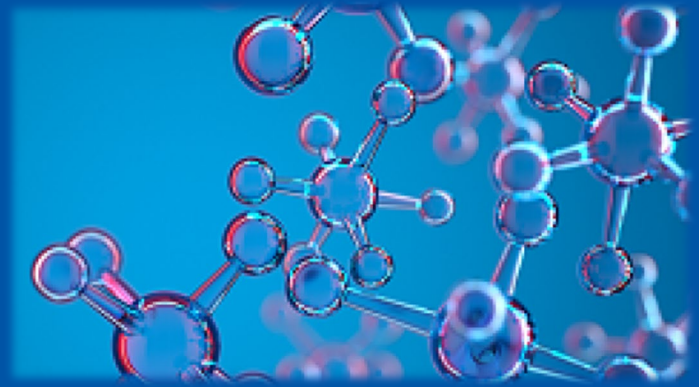


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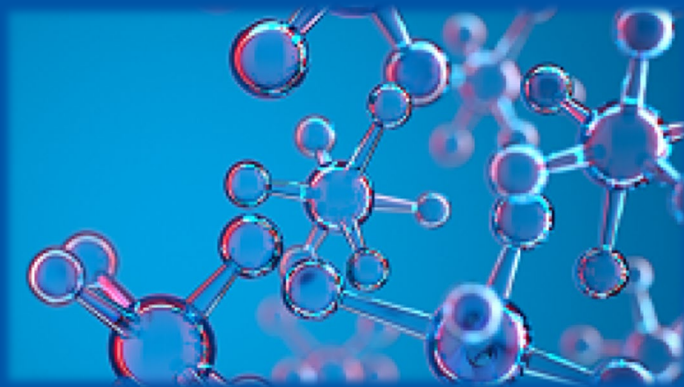
Knowledge Check 3



Q: EPA's integrated approach toward PFAS is focused on which of the following goals?

- a) Restrict
- b) Remediate
- c) Research
- d) Reclaim
- e) a through c
- f) All of the Above

Knowledge Check 3



Q: EPA's integrated approach toward PFAS is focused on which of the following goals? A: e

a) Restrict

b) Remediate

c) Research

d) Reclaim

e) a through c

f) all of the above

*EPA's integrated approach toward PFAS is focused on **restricting** PFAS from entering the environment at adverse levels, **remediating** cleanup of PFAS contamination and increasing understanding of PFAS through **research**, development and innovation*

Federal PFAS Regulations, Rulemakings and Policies

EPA Final Rules

Final Rule to Enhance PFAS Toxics Release Inventory Reporting (EPCRA)

- In October 2023, EPA released a final rule that will improve reporting on PFAS to the Toxics Release Inventory (TRI) by eliminating an exemption that allowed facilities to avoid reporting information on PFAS when those chemicals were used in small (*de minimus*) concentrations.
- Legal Statute: Emergency Planning and Community Right-to-Know Act (EPCRA), pursuant to National Defense Authorization Act for FY 2020 (2020 NDAA)
- Under this new rule, EPA will receive more comprehensive data on PFAS and looks forward to sharing these data with our partners and the public.
- Effective November 30, 2023, but rule kicks in with the TRI reporting year beginning January 1, 2024, for which reports are due July 1, 2025.

[Learn More](#)

Final Rule to Enhance PFAS Toxics Release Inventory Reporting (EPCRA), continued

- All PFAS included on the TRI have been added to the list of chemicals of special concern located at 40 CFR § 372.28
- EPA maintains a list of PFAS added to the TRI list at <https://www.epa.gov/toxicsrelease-inventory-tri-program/list-pfasadded-tri-ndaa>
- Addition to list of chemicals of special concern removes the *de minimus* exemption thereby enhancing reporting for PFAS

Chemical name	CAS No.	Reporting threshold (in pounds)
Pentachlorobenzene	00608-93-5	10
Per- and polyfluoroalkyl substances (Individually listed per- and polyfluoroalkyl substances added by 15 U.S.C. 8921(b)(1) and (c)(1)). (EPA periodically updates the lists of covered chemicals at § 372.65(d) and (e) to reflect chemicals that have been added by 15 U.S.C. 8921)	see § 372.65(d) and (e)	100
Polychlorinated biphenyl (PCBs)	01336-36-3	10
Tetrabromobisphenol A	00079-94-7	100
Toxaphene	08001-35-2	10
Trifluralin	01582-09-8	100

Final Rule to Require Reporting for PFAS Manufactured and Used in the US (TSCA)

- In October 2023, EPA published a final rule that will provide EPA, its partners, and the public with the largest-ever dataset of PFAS manufactured and used in the United States.
- Legal Statute: Toxic Substances Control Act (TSCA), as amended by the 2020 NDAA
- Final rule will require all manufacturers (including importers) of PFAS and PFAS-containing articles in any year since 2011 to electronically report information to EPA on PFAS uses, production volumes, disposal, exposures, and hazards.
- Reported information includes that related to chemical identify and structure, production, use, byproducts, exposure, disposal and health and environmental impacts
- Effective November 13, 2023

[Learn More](#)

Final Significant New Use Rule for Inactive PFAS (TSCA)

- In January 2024, EPA finalized a significant new use rule (SNUR) under TSCA that strengthens regulations of PFAS by preventing anyone from resuming manufacture or processing of 329 inactive PFAS without EPA review of the significant new use.
- “Inactive” designation means that a chemical substance has not been manufactured (including imported) or processed in the US since June 21, 2006 and is not already subject to a SNUR.
- Persons subject to the final SNUR are required to notify EPA at least 90 days before commencing any manufacture (including import) or processing of the chemical substances for a significant new use.
- EPA must make an affirmative determination on the notification before the manufacture (including import) or processing for the significant new use can commence. [Learn More](#)
- Effective March 11, 2024

Federal PFAS Regulations, Rulemakings, and Policies

EPA Proposed Rules and Other Actions

New Framework to Prevent Unsafe New PFAS from Entering the Market (TSCA)

- In June 2023, EPA released a framework for addressing new and new uses of PFAS under TSCA
 - The new framework will ensure that before these chemicals are allowed to enter into commerce, EPA will undertake an extensive evaluation to ensure they pose no harm to human health and the environment.
 - Framework will be used to qualitatively assess PFAS that are likely persistent, bioaccumulative and toxic (PBT) chemicals
 - For PBT PFAS expected to lead to exposure and environmental releases, with limited exception, EPA generally expects that the substances would not be allowed to enter commerce before extensive testing
 - New framework will apply to new PFAS or new use notices that are currently under EPA review or any new use notices EPA receives in the future
- [Learn More](#)

Proposed Resource Conservation and Recovery Act PFAS-Related Rules (RCRA)

- In February 2024, EPA released two proposed regulations under the Resource Conservation and Recovery Act (RCRA) to protect communities from PFAS and other emerging chemicals of concern
- Rules would:
 1. assure that EPA's regulations clearly reflect EPA's and authorized states' authority to require cleanup of the full range of substances RCRA intended (Definition of Hazardous Waste Proposal)
 2. add nine PFAS to list of RCRA hazardous constituents (40 CFR Part 261 Appendix VIII; Appendix VIII proposal)
- Proposed rule published in the Federal Register on February 8 with 30-day comment period for Rule 1 and 60-day comment period for Rule 2

[Learn More](#)

Proposed Resource Conservation and Recovery Act PFAS-Related Rules (RCRA), continued

1. *Assure that EPA's regulations clearly reflect EPA's and authorized states' authority to require cleanup of the full range of substances RCRA intended*

- “Definition of Hazardous Waste Applicable to Corrective Action from Solid Waste Management Units” proposed rule
- EPA is proposing to modify the definition of hazardous waste as it applies to cleanups at permitted hazardous waste facilities
- Currently, the regulations do not clearly and accurately reflect the full authorities granted to EPA by Congress
- EPA has statutory authority under RCRA to require corrective action at and around permitted hazardous waste treatment, storage or disposal facilities
- Corrective action under RCRA requires facilities that treat, store or dispose of hazardous waste to protect health and the environment by investigating and cleaning up hazardous releases into environmental media (soil, groundwater, surface water, and air).
- Comment period for proposed rule closes March 11, 2024

Proposed Resource Conservation and Recovery Act PFAS-Related Rules (RCRA), continued

2. *Add nine PFAS to list of RCRA hazardous constituents*

- “Listing of Specific PFAS as Hazardous Constituents” proposed rule
- EPA is proposing to amend RCRA regulations to add nine PFAS as hazardous constituents in 40 CFR Part 261 Appendix VIII.
- Nine PFAS to be added are: PFOA, PFOS, PFBS, HFPO-DA (GenX Chemicals), PFNA, PFHxS, PFDA, PFHxA, and PFBA
- EPA has determined that these nine compounds meet the criteria for listing as RCRA hazardous constituents
- Addition would facilitate additional corrective action to address releases of these specific PFAS at RCRA hazardous waste TSDFs. It would NOT require a suite of cradle to grave management controls that are associated with RCRA hazardous waste
- Comment period for proposed rule closes April 8, 2024

National Drinking water standard to limit six PFAS (SDWA)

- In March 2023, EPA proposed a National Primary Drinking Water Regulation (NPDWR) for six PFAS (PFOA, PFOS, PFNA, GenX Chemicals, PFHxS, and PFBS) under the Safe Drinking Water Act (SDWA)
- When finalized, the rule would establish legally enforceable levels for these six PFAS in drinking water
- EPA expects that if fully implemented, this rule will prevent thousands of deaths and reduce tens of thousands of serious PFAS-attributable illnesses.
- Comment period ended May 30, 2023, EPA received over 120,000 comments.
- EPA submitted final NPDWR for interagency review in the winter of 2023 and will issue final rule after conclusion of interagency review

[Learn More](#)

National Drinking water standard to limit six PFAS (SDWA), continued

Compound	Proposed Maximum Contaminant Level Goal	Proposed Maximum Contaminant Level
PFOA	zero	4.0 parts per trillion (ng/L)
PFOS	zero	4.0 parts per trillion (ng/L)
PFNA	1.0 (unitless) Hazard Index	1.0 (unitless) Hazard Index
PFHxS		
PFBS		
HFPO-DA (GenX Chemicals)		

Existing Interim Health Advisories for PFOA and PFOS will continue to remain available as EPA finalizes the NPDWR

Drinking Water Health Advisories (SDWA)

- In June 2022, EPA released four interim updated drinking water health advisories for PFAS as authorized under the SDWA.
- Health advisories can be issued for contaminants, such as PFAS, that are not currently subject to a NPDWR.
- Updated PFOS and PFOA from 2016
- Finalized health advisories for PFBS and HFPO-DA (GenX Chemicals)
- The March 2023 proposed NPDWR considered additional updates to the science since 2022.
- Drinking water health advisories provide information on contaminants that can cause health effects and are known or anticipated to occur in drinking water
- Drinking water health advisories are non-enforceable and non-regulatory.

[Learn More](#)

Drinking Water Health Advisories (SDWA), continued

Compound	Interim Updated Lifetime Health Advisory (2022)	Superseded Lifetime Health Advisory (2016)
PFOA	0.004 parts per trillion (ng/L)	70 parts per trillion (total or combined with PFOS)
PFOS	0.02 parts per trillion (ng/L)	70 parts per trillion (total or combined with PFOA)
PFBS	2,000 parts per trillion (ng/L)	N/A
HFPO-DA (GenX Chemicals)	10 parts per trillion (ng/L)	N/A

Initial Nationwide Monitoring Data on 29 PFAS in Drinking Water Systems (SDWA)

- The Safe Drinking Water Act (SDWA) requires that once every five years the EPA issue a list of unregulated contaminants to be monitored by public water systems (PWSs).
- First set of UCMR 5 data was released in August 2023
- In January 2024, EPA released the third set of data collected under the fifth Unregulated Contaminant Monitoring Rule (UCMR 5).
 - Data released to date accounts for approximately one quarter of total results EPA expects to receive through completion of data reporting in 2026
- New data will improve EPA's understanding of the frequency that the 29 PFAS (and lithium) are found in the nation's drinking water systems, and at what levels.
- Every large and midsize public water system in America is part of UCMR 5, along with hundreds of small water systems.

[Learn More](#)

Initial Nationwide Monitoring Data on 29 PFAS in Drinking Water Systems (SDWA), continued

- Findings from January 2024 data summary (limited set of data):
 - PFOA and PFOS were measured above the HA levels for 11.5% and 12.8% of PWSs, respectively.
 - HFPO-DA and PFBS are the other two PFAS with HA levels. HFPO-DA measured above HA levels at 0.03% of PWSs, PFBS not detected above HA levels
 - 17 of the remaining 25 PFAS were detected above the UCMR minimum reporting level (MRL)
 - 8 of the remaining 25 PFAS were not detected above the MRL at any PWS
 - Data show that PFAS can occur as mixtures in drinking water systems
- PFAS analyzed using EPA drinking water methods 533 and 537.1

[Learn More](#)

Addressing PFAS in National Pollutant Discharge Elimination System (NPDES) Permitting (CWA)

- In April 2022, EPA issued [a memo](#) detailing how EPA will address PFAS discharges in EPA-issued NPDES permits and for Industrial Users where EPA is the pretreatment control authority.
- In December 2022, EPA issued [a companion memo](#) providing guidance to states and updates to the April 2022 guidance.
- Recommended permit conditions for industrial direct dischargers include:
 - Effluent monitoring using EPA Method 1633
 - Best management practices (BMPs) for PFAS including product substitution, reduction or elimination for discharges with PFAS
 - BMPs to address aqueous film-forming foam (AFFF)
- Recommended permit conditions for POTWs
 - Effluent, influent and biosolids monitoring using EPA Method 1633
 - Pretreatment program activities – identify and locate all possible industrial users that may be subject to pretreatment program and require BMPs and pollution prevention to address PFAS discharges to POTWs
- The EPA expects to propose rules in 2024 to address discharges from PFAS manufacturers and from metal finishers, while also pursuing a rulemaking for landfills and carrying out a new Publicly Owned Treatment Works influent study.

Methods for Measuring PFAS in the Environment (CWA)

- In January 2024, EPA released three methods to better measure PFAS in the environment
 - Final EPA Method 1633 – to test for 40 PFAS in wastewater, surface water, groundwater, soil, biosolids, sediment, landfill leachate, and fish tissue
 - Final EPA Method 1621 – to broadly screen for the presence of chemical substances that contain carbon-fluorine bonds, including PFAS, in wastewater
 - Other Test Method (OTM)-50 – to measure 30 volatile fluorinated compounds in air
- As a next step, EPA plans to propose Methods 1633 and 1621 for adoption in the Code of Federal Regulations, a necessary step for them to be nationally required for Clean Water Act use.

[Learn More](#)

Draft Aquatic Life Criteria for PFOA and PFOS (CWA)

- In April 2022 EPA proposed the first Clean Water Act aquatic life criteria for PFAS
- Focuses on PFOA and PFOS, two of the most well-studied PFAS
- Draft recommendations reflect the latest peer-reviewed scientific knowledge regarding the toxicological effects of PFOA and PFOS on freshwater aquatic organism
- Provide criteria to protect aquatic life from the acute and chronic toxic effects of PFOA and PFOS individually (not in combination)
- EPA plans to finalize these criteria in 2024

Proposed Designation of PFOA and PFOS as CERCLA Hazardous Substances

- In August 2022 EPA proposed to designate PFOA and PFOS, two of the most widely used PFAS, as hazardous substances under CERCLA (Superfund).
- Rulemaking would increase transparency around releases of these chemicals and hold polluters accountable for cleaning up their contamination
- Designation would require entities to immediately report releases of PFOA and PFOS that meet or exceed the reportable quantity
 - Entities would not be required to report past releases of PFOA and PFOS as they were not yet listed as hazardous substances.

Proposed Designation of PFOA and PFOS as CERCLA Hazardous Substances, continued

- CERCLA already provides EPA authority to address PFOA and PFOS releases because the chemicals are pollutants and contaminants.
- EPA can already respond if the Agency finds that the release or threat of release may present an imminent and substantial danger to the public health or welfare.
- Designating PFOA and PFOS as CERCLA hazardous substances, if finalized, will allow EPA to respond without making a determination of imminent and substantial danger
- It will also allow EPA to seek to recover cleanup costs from potentially responsible parties based on site-specific circumstances
- EPA looks forward to issuing final rule after interagency review concludes

[Learn More](#)

Advance Notice of Proposed Rulemaking to Inform Potential Future CERCLA Designations

- In April 2023, EPA issued an Advance Notice of Proposed Rulemaking (ANPRM) seeking public input regarding possible future hazardous substance designations of PFAS under CERCLA for:
 - Seven PFAS besides PFOA and PFOS (PFBS, PFHxS, PFNA, HFPO-DA, PFBA, PFHxA, and PFDA)
 - Precursors to PFOA, PFOS and seven other PFAS
 - Categories of PFAS
- CERCLA authorizes EPA to designate elements, compounds, mixtures, solutions and substances
- Comment period ended August 2023

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Adding PFAS as a National Enforcement and Compliance Initiative

- In August 2023, EPA finalized its National Enforcement and Compliance Initiatives (NECIs) for 2024-2027.
- The 2024-2027 NECIs include “Addressing Exposure to PFAS.”
- The initiative will focus on implementing EPA’s PFAS Strategic Roadmap and holding responsible:
 - those who manufactured PFAS and/or used PFAS in the manufacturing process
 - Federal facilities that released PFAS
 - Other industrial parties who significantly contributed to the release of PFAS to the environment
- If EPA finalizes a PFOA/PFOS CERCLA hazardous substance designation, the Agency does not intend to pursue entities where equitable factors do not support CERCLA responsibility, such as airports or local fire departments.
- The regulatory framework for PFAS continues to develop.

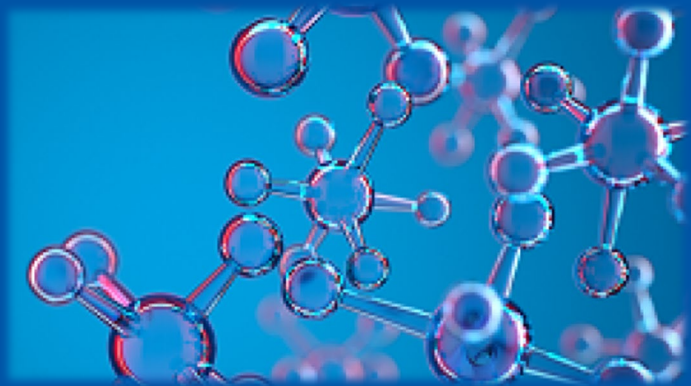
[Learn More](#)

Interim Guidance on Destroying and Disposing of Certain PFAS and PFAS-Containing Materials

- In December 2020, EPA issued interim guidance on destroying and disposing of certain PFAS and PFAS-containing materials
- Outlines state of science, as of December 2020, on techniques and treatments to destroy or dispose of PFAS or PFAS-containing materials from non-consumer products, including AFFF for firefighting.
- Interagency review of updated guidance anticipated to be complete soon, with announcement, publication and public comment period to follow.

[Learn More](#)

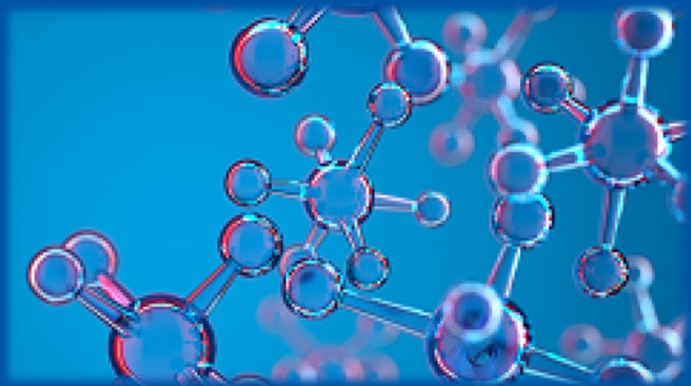
Knowledge Check 4



Q: True or False?

EPA currently has the authority to require cleanup of emerging chemicals of concern, such as PFAS, that may present substantial hazards, at permitted hazardous waste facilities

Knowledge Check 4

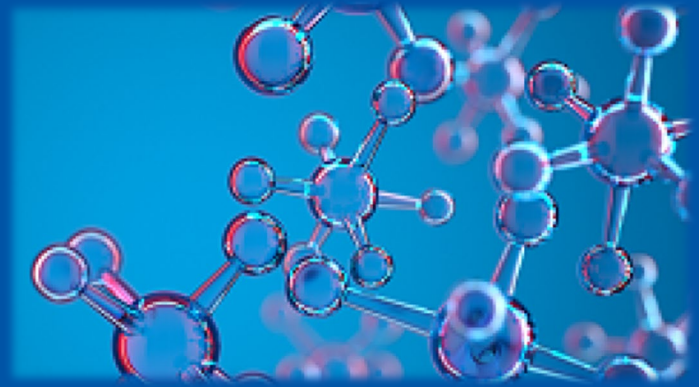


Q: True or False? A: True!

EPA currently has the authority to require cleanup of emerging chemicals of concern, such as PFAS, that may present substantial hazards, at permitted hazardous waste facilities

One of the proposed rules under RCRA will assure that EPA's regulations clearly reflect EPA's and authorized states' authority to require cleanup of the full range of substances RCRA intended

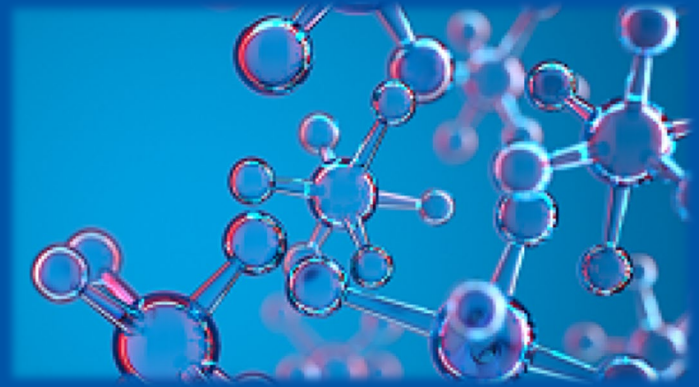
Final Knowledge Check



Q: True or False?

You can find more information on the EPA's efforts on PFAS at our website at www.epa.gov/pfas.

Final Knowledge Check



Q: True or False? A: True!

You can find more information on the EPA's efforts on PFAS at our website at www.epa.gov/pfas.

This website is updated regularly with EPA's latest actions towards addressing PFAS, PFAS resources, data and tools, EPA's current understanding of PFAS, and steps to reduce PFAS risk



Q&A



26th California Unified Program
Annual Training Conference
February 26-29, 2024