

PFAS Regulation in 2024

State, Federal, and Beyond

American Home Furnishings Association

October 28, 2024



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Performance Fluoropolymer Partnership

The purpose of the Partnership is to advance the interests of member companies that manufacture, formulate, process or use fluoropolymer products.

- Trade association managed by the American Chemistry Council
- Active at all levels of government → state, federal, international
- Members are commercial manufacturers of fluoropolymers and companies that formulate, process or use fluoropolymers

All PFAS are not the same.



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All PFAS are not the same.

Per- and Poly-fluoroalkyl substances (PFAS)

Non-Polymers

Perfluoroalkyl Substances

Compounds for which all hydrogens on all carbons (except for carbons associated with functional groups) have been replaced by fluorines

- (Aliphatic) perfluorocarbons (PFCs)
- Perfluoroalkyl acids
- Perfluoroalkane sulfonyl fluorides
- Perfluoroalkane sulfonamides
- Perfluoroalkyl iodides
- Perfluoroalkyl aldehydes

Polyfluoroalkyl Substances

Compounds for which all hydrogens on at least one (but not all) carbon have been replaced by fluorines

- Perfluoroalkane sulfonamido derivatives
- Fluorotelomer-based compounds
- Semifluorinated *n*-alkanes and alkenes

Polymers

Fluoropolymers

including fluoroelastomers

Carbon-only polymer backbone with fluorines directly attached

Perfluoropolyethers

Carbon and oxygen polymer backbone with fluorines directly attached to carbon

Side-chain Fluorinated Polymers

Variable composition non-fluorinated polymer backbone with fluorinated side chains

- Fluorinated acrylate and methacrylate polymers
- Fluorinated urethane polymers
- Fluorinated oxetane polymers

Buck et al., 2011.
<http://dx.doi.org/10.1002/ieam.258>



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Fluoropolymers: Unique Combination of Properties

- Thermal, chemical, photochemical, hydrolytic, oxidative, and biological stability
- High-performance dielectric properties
- Practically insoluble in water and not subject to long-range transport
- Cannot cross the cell membrane (molecular weight >100,000 Daltons)
- Not bioavailable or bioaccumulative



All PFAS are not the same.

- Commercial fluoropolymers that meet criteria used to identify polymers of low concern to human health and the environment represent ~96% of the global commercial fluoropolymer market.
- Substances analyzed by [Korzeniowski et al. \(2022\)](#) and [Henry et al. \(2018\)](#)
 - **Fluoroplastics:** PTFE, ETFE, FEP, PFA, PVDF homopolymer, PVDF copolymer, ECTFE copolymer, ECTFE terpolymer, PCTFE, FEVE, EFEP terpolymer, CPT terpolymer, THV terpolymer
 - **Fluoroelastomers:** FEPM, FKM, FFKM
 - **Specialty Fluoroplastics:** Amorphous, Ionomer





Canada



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Canada

- PFOS, PFOA, and other non-polymeric, long-chain perfluorocarboxylic acids already regulated/banned
- 12 July: Revised draft state of the science report and risk management plan
- Proposes to set fluoropolymers apart, have separate fluoropolymer assessment
- Proposed recommendation to add other types of PFAS to Schedule 1 of the Canadian Environmental Protection Act
 - Schedule 1, Part 1: Strict risk management (priority given to prohibition)
 - Schedule 1, Part 2: Subject to regular risk management actions
- Data call in for PFAS on Domestic Substances List
- Potential to add PFAS to Canada's National Pollutant Release Inventory

States



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State Activity at a Glance

- 340+ PFAS-related bills and resolutions introduced in 2024
- Types of state bills
 - Restricting uses
 - Requiring notification of PFAS intentionally used in products
 - Requiring PFAS users to justify “currently unavoidable use” (CUU) of PFAS in products
 - Maximum contaminant levels and clean up standards
- Consistent use of a broad definition of PFAS
 - Fluorinated organic chemicals containing one fully fluorinated carbon atom (if it has but one CF_3- or $-\text{CF}_2-$ group, it's in scope)

State Activity at a Glance

- **Types of state bills**
 - Restricting uses: some specific (e.g., food packaging) and some constructed broadly (e.g., all intentionally added PFAS in anything)
 - Requiring notification of PFAS intentionally used in products
 - Requiring PFAS users to justify “currently unavoidable use” of PFAS in products
 - Maximum contaminant levels and clean up standards
- **Consistent use of a broad definition of PFAS**
 - Fluorinated organic chemicals containing one fully fluorinated carbon atom (if it has but one CF_3- or $-\text{CF}_2-$ group, it's in scope)



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Maine



- 2021 law said that beginning January 1, 2023:
 - Manufacturers of a product for sale in the state that contains intentionally added PFAS must report that product to the state environmental agency
 - Prohibit sale of carpet/rug or fabric treatment that contains intentionally added PFAS
- And, as of January 1, 2030, sale or distribution permitted only if it is determined that the use is a CUU

Maine



- CUU in 2021 law → “essential for health, safety, or the functioning of society and for which alternatives are not reasonably available.”
- In 2024 amendment, legislature defined “essential for” phrase:
 - Function provided by the PFAS is necessary for product to perform as intended
 - Unavailability of PFAS for use in the product would cause the product to be unavailable, resulting in:
 - A significant increase in negative health outcomes;
 - Inability to mitigate significant risks to human health or the environment; or
 - Significant disruption of the daily functions on which society relies



Maine



- Other (not all) changes made by legislature in 2024
 - Intentionally added PFAS banned in more consumer product categories (as of Jan. 1, 2026 or 2029, depending on the product category)
 - CUU timeline extended to 2032
 - Reporting required only after a CUU determination is made
 - Reporting standard is TSCA “known or reasonably ascertainable”
 - Acknowledgement of proprietary information
 - **Exemptions for many industrial uses**
 - [PFAS in Products, Maine Department of Environmental Protection](#)





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Minnesota Statutes 116.943



January 1, 2025: Illegal to sell or distribute the following products with intentionally added PFAS within Minnesota:

Carpets or rugs

Cleaning products

Cookware

Cosmetics

Dental floss

Fabric treatments

Juvenile products

Menstruation products

Textile furnishings

Ski wax

Upholstered furniture



Minnesota Statutes 116.943



- Requires notification of intentionally added PFAS in products
- Notification system open January 1, 2025, to January 1, 2026
- Illegal to manufacture, distribute or sell products not notified
- CUU determinations
 - Likely time-limited with option for renewal
 - May apply to a group of products or to a specific company or product
 - CUU rule-making process will come after reporting and fees rules are finalized
- January 1, 2032: Ban on products not determined CUU.
- [PFAS use prohibitions | Minnesota Pollution Control Agency \(state.mn.us\)](#)





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California AB 347

- Gives Department of Toxic Substance Control (DTSC) authority to implement, interpret, and enforce PFAS bans under previously passed laws for juvenile products, textile articles, and food packaging (fiber-based)
- July 1, 2029: All products in categories above must be registered
 - Manufacturers must test all products and certify they are PFAS-free
 - DTSC will provide a list of acceptable test methods
 - Fee required to register
 - Enforcement begins no later than July 1, 2030
- [CA AB-347 Household product safety: toxic substances: testing and enforcement](#)



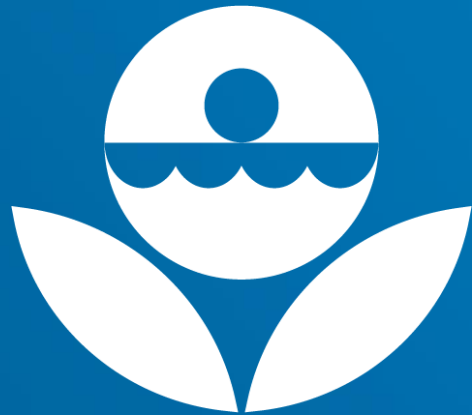
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New Hampshire HB 1649

- As of January 1, 2027, sale and distribution of the following consumer products with intentionally added PFAS is prohibited:
 - Carpets or rugs
 - Textile treatments
 - Cosmetics
 - Feminine hygiene products
 - Food packaging and containers
 - Upholstered furniture
 - Juvenile products
 - Textile furnishings
- Certificate of compliance to Department of Environmental Services on request
- Exemptions:
 - Medical devices
 - Products with 85% recycled content
 - Fluorinated gasses approved under EPA's Significant New Alternatives Policy program
 - Replacement parts for products manufactured prior to ban

U.S. States: Other Product Laws 2024

- Colorado SB 81
- Connecticut SB 292
- Maryland HB 1147
- Massachusetts SB 2902
- New Hampshire HB 1649
- Rhode Island HB 7356 Substitute A
- Vermont SB 25



U.S. EPA



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TSCA 8(a)(7) Reporting Rule

- Requires electronic reporting of information regarding PFAS uses, production volumes, disposal, exposures, and hazards
- Manufacturers that manufacture (or imported) or have manufactured (or imported) covered chemical substances in any year since January 1, 2011
- Entities that **only** process, use, and/or dispose of PFAS are exempt
- Imported articles containing or made of PFAS are in scope
- Structural definition of PFAS
- **EPA has moved start of data submission period from November 12, 2024, to July 11, 2025**

Toxics Release Inventory (TRI)

- Earlier this month, [EPA proposed](#) to add 16 individual and 15 PFAS categories representing over 100 individual PFAS to the TRI
 - No fluoropolymers
- Proposing a 100 lb. reporting threshold for individual chemicals or a category
 - All PFAS in a proposed category would count towards the threshold for that category
- Also proposed to designate new additions as chemicals of special concern
 - More robust reporting requirements, no *de minimis* exemption for calculating the reporting threshold, supplier notification requirements for some facilities
- Criteria for determining whether a facility has a TRI reporting obligation are available at [EPA's Basics of TRI Reporting Website](#)



Europe



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Europe: REACH Restriction Proposal

- Denmark, Germany, The Netherlands, Norway, and Sweden
- Envisions restricting the manufacture, placing on the market, or use of PFAS
 - Inclusive of PFAS-containing mixtures and articles
 - Covers PFAS broadly, including manufacture and use of all fluoropolymers in all applications

Europe: REACH Restriction Proposal

- PFAS manufacturing
- Fluorinated gases
- Medical devices
- Transport
- Electronics and semiconductors
- Energy sector
- Consumer mixtures
- Cosmetics
- Ski wax
- Construction products
- Lubricants
- Petroleum and mining
- Textile, upholstery, leather, apparel and carpets
- Food contact materials and packaging
- Metal plating and manufacture of metal products
- **Not exhaustive!**



Europe: REACH Restriction Proposal

- Original timeline forecast entry into force during Q3 of 2025
- > 5,500 public comments, some of them very detailed, have exposed the enormity of both the scope and implications of the proposal
- As a result, the timeline is much slower and highly uncertain
- Authorities are organizing their work by sector
 - March 2024: Consumer mixtures, cosmetics, ski waxes
 - June 2024: Metal plating and manufacture of metal products (plus March topics)
 - September 2024: Textiles, food contact materials and packaging, petroleum and mining
 - Beyond September: Fluorinated gases, transport, and construction products

Thank You!

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All PFAS Are Not The Same

- Data on 18 fluoropolymers show that they satisfy criteria used to identify polymers of low concern (PLC) for human health and the environment.

