

What are PFAS and why are they a problem?

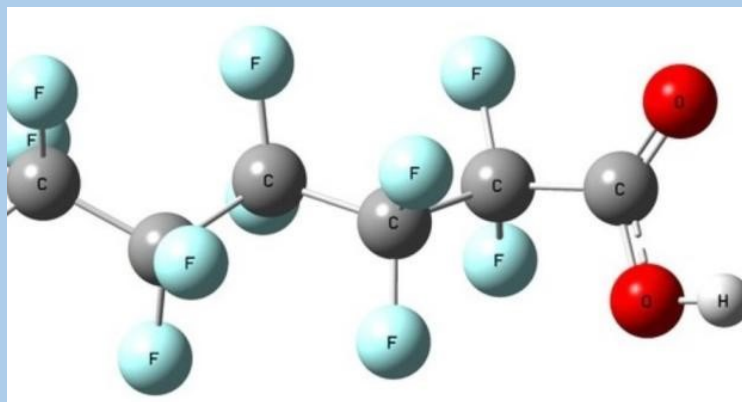
Per- and polyfluoroalkyl substances (PFAS) are a family of chemicals used since the 1950s to manufacture stain-resistant, water-resistant, and non-stick products. PFAS are widely used in common consumer products as coatings, on food packaging, outdoor clothing, carpets, leather goods, ski and snowboard waxes, and more.



PFAS stay in the environment for a long time and do not break down easily. As a result, PFAS are widely detected in soil, water, air, and food. Some PFAS can accumulate in the food chain. Exposure can occur when someone uses certain products that contain PFAS, eats PFAS-contaminated food, or drinks PFAS-contaminated water. When ingested, some PFAS can build up in the body and, over time, these PFAS may increase to a level where health effects could occur. Studies indicate that exposure to sufficiently elevated levels of certain PFAS may cause a variety of health effects including developmental effects in fetuses and infants, effects on the thyroid, liver, kidneys, certain hormones and the immune system.



Certain types of firefighting foam historically used by the U.S. military, local fire departments, and airports to fight oil and gasoline fires may contain PFAS. PFAS in drinking water is an important emerging issue nationwide. Because PFAS are water soluble, over time PFAS from some fire-fighting foam, manufacturing sites, landfills, spills, air deposition from factories and other releases can seep into surface soils. From there, PFAS can leach into groundwater or surface water, and can contaminate drinking water. PFAS have also been found in rivers, lakes, fish, and wildlife.



Some studies suggest a cancer risk may also exist in people exposed to higher levels of some PFAS. Scientists and regulators are still working to study and better understand the health risks posed by exposures to PFAS, and MassDEP is following developments in this burgeoning area closely.