

REGULATORY FRAMEWORKS

What are the regulatory standards for PFC/PFAS?

Currently, PFC/PFAS are classified as unregulated or “emerging” contaminants, which have no Safe Drinking Water Act (SDWA) regulatory standards or routine water quality testing requirements. PFC/PFAS are being studied by the EPA to determine if regulation is needed. On 19 May 2016, the EPA’s Office of Water issued health advisory levels (HAs) for two PFC/PFAS, perfluorooctane sulfonate (PFOS)- Publication EPA 822-R-16-004 and perfluorooctanoic acid (PFOA)–EPA 822-R-16-005. Health advisory levels are not regulatory standards. They are health based concentrations above which the EPA recommends action should be taken to reduce exposure. The EPA HA levels are 0.07 parts per billion (ppb) for both PFOS and PFOA, additively.

For more information on how EPA manages the unregulated or “emerging” contaminants refer to: UCMR - <https://www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule>

Drinking water health advisory for PFOS and PFOA - <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>

What are health advisory levels?

Health advisory levels identify the concentration of a contaminant in drinking water at which adverse health effects are not anticipated to occur over specific exposure durations (e.g., 1 day, 10 days, a lifetime). HAs serve as informal technical guidance to assist federal, state, and local officials, and managers of public or community water systems in protecting public health when emergency spills or other contamination situations occur. An HA document provides information on the environmental properties, health effects, analytical methodology, and treatment technologies for removing drinking water contaminants.

How did EPA set the drinking water health advisory levels for PFOS and PFOA?

EPA used a factor called the Relative Source Contribution (RSC) in calculating the lifetime health advisory levels for PFOS and PFOA to account for non-water exposures. From a national perspective, the dominant source of human exposure to PFOS and PFOA is expected to be from the diet (food and water); indoor dust from carpets and other sources is also an important source of exposure, especially for children. The HA was calculated using a RSC of 20%, which allows for other PFOS and PFOA exposure sources (e.g., dust, diet, air) to make up 80% of the dose of exposures (RfD).

More information on the EPA method for calculating a health advisory level is available from the EPA Document EPA-822-B-00-004, *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health 2000*, October 2000 and the EPA’s Webpage for Drinking Water Health Advisory for PFOS and PFOA (<https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>).

Why is the EPA issuing a health advisory for PFOS + PFOA (combined) that exceed a reference value of 70 parts per trillion (ppt; 0.070 micrograms per liter)?

Please refer to EPA.

What do parts per billion (ppb) and parts per trillion (ppt) concentrations in drinking water mean in simple terms?

Parts per billion (ppb) and parts per trillion (ppt) are the most commonly used terms to describe very small amounts or trace levels of contaminants in our drinking water.

One ppb is the equivalent of one drop of impurity in 500 barrels of water or 1 cent out of \$10 million.

One ppt is the equivalent of one drop of impurity in 500,000 barrels of water -or- traveling 6 inches out of a 93 million-mile journey toward the sun.

Why is there not an advisory number for other PFC/PFAS (except PFOA and PFOS)?

There is not enough toxicological data available for most other PFC/PFAS to determine advisory levels. That said, some states have screening levels for other PFC/PFAS.

References on PFC/PFAS Regulatory Framework

- How EPA manages the unregulated or “emerging” contaminants under UCMR:
<https://www.epa.gov/dwuclr/learn-about-unregulated-contaminant-monitoring-rule>
- Drinking water health advisory for PFOS and PFOA
 - <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>
 - <https://www.epa.gov/ground-water-and-drinking-water/supporting-documents-drinking-water-health-advisories-pfoa-and-pfos>
- States:
 - California Department of Public Health - <http://www.biomonitoring.ca.gov/>
 - Michigan Department of Community Health
Former Wurtsmith Air Force Base, Iosco County -
http://www.michigan.gov/mdhhs/0,5885,7-339-71551_2945_5105-285528--,00.html
 - Minnesota Department of Health -
<http://www.health.state.mn.us/divs/eh/hazardous/topics/pfcs/>
 - New Hampshire Department of Health and Human Services -
<http://www.dhhs.nh.gov/dphs/pfcs/pfc-resources.htm>
 - New Jersey Department of Health -
http://www.nj.gov/health/eohs/pfc_in_drinkingwater.shtml
http://www.nj.gov/health/eohs/drinking_water.shtml