

This fact sheet has been prepared by the technical staff of No-Pollution Enterprises. It is intended to keep our visitors informed of PFAS.

PFASs comprise a large group of chemicals that are both chemically and thermally stable and are both lipophobic (have no affinity for oils) and hydrophobic (have no affinity for water). The most investigated classes of PFASs are the perfluorocarboxylate acids (PFCAs) and perfluoroalkyl sulfonic acids (PFASAs). The most studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). These chemicals are known to cause health problems. Please refer to other Facts Sheets for relevant information on these chemicals.

U.S. WATER QUALITY ADVISORIES AND STANDARDS

The Safe Drinking Water Act (SDWA) is the federal law that protects public drinking water supplies throughout our Nation. Under the SDWA, the U.S. EPA sets standards for drinking water quality and then implements various programs to ensure drinking water safety.

The SDWA requires the U.S. EPA to publish a list of unregulated contaminants every 5 years that are not subject to any proposed or promulgated national primary drinking water regulations, are known or anticipated to occur in public water systems (PWSs), and might require regulation under SDWA. This list is known as the Contaminant Candidate List (CCL). These are reported under the Unregulated Contaminant Monitoring Rule (UCMR), which requires all large systems serving more than 10,000 people, plus a statistically selected group of 800 small systems to monitor for a 1-year period. EPA has reported that based on its most recent sampling about 1% of the Public Water Supplies tested have been impacted by PFAS chemicals.

EPA's health advisories are non-enforceable and non-regulatory. They provide technical information to states, agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination.

In 2009, the EPA published provisional health advisories for PFOA and PFOS based on the evidence available at that time. The science has evolved since then and EPA has now replaced the provisional advisories with new, lifetime health advisories (HA). Currently published advisories are listed in the table below. The PWS in your town or city is supposed to monitor and report these chemicals. You should go to their web site and review their monthly monitoring records.

EPA reports that in some cases, drinking water systems can reduce concentrations of perfluoroalkyl substances, including PFOA and PFOS, by closing contaminated wells or changing rates of the blending of water sources. Alternatively, public water systems can treat source water with activated carbon or high pressure membrane systems (e.g., reverse osmosis) to remove PFOA and PFOS from drinking water. Treatment systems are already used by some public water systems; however, designs for any system must be well-maintained to ensure that they are effective for treating PFOA and PFOS.

Agency	Guideline Value			
	(µg/L)		(ppt)	
	PFOA	PFOS	PFOA	PFOS
U.S. EPA	0.07 ^a		70	
U.S. EPA	0.4	0.2	400	20
Delaware Department of Resources and Environmental Control	0.4	0.2	400,000	20,
Maine Department of Health and Human Services	0.1		100,000	
Michigan Department of Environmental Quality	0.42	0.011	420,000	11
Minnesota Department of Health	0.3	0.3	300,000	300
New Jersey Department of Environmental Protection	0.04		40,000	
North Carolina Division of Water Quality	2		2,000,000	
Vermont Agency of Natural Resources	0.02		20,000	

^aHealth advisory level set at 70 parts per trillion. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 parts per trillion health advisory level.

In some impacted communities, consumers have been provided bottled water while steps to reduce or remove PFOA or PFOS from drinking water or to establish a new water supply are underway.

Home drinking water treatment units are typically certified by independent third party organizations against American National Standards Institute (ANSI) standards to verify their contaminant removal claims. Some home filters remove impurities using activated carbon and reverse osmosis, which are the same technologies utilized by public water supply systems to remove PFOA and PFOS. However, there currently are no ANSI protocols for testing home treatment systems to verify that these devices effectively remove PFOA and PFOS or how frequently the filters should be changed in order to maintain removal efficiency.

