

(In)famous Allrounder PFAS – Forever Chemicals

Facts about human and environmental exposure to a troublesome class of substances – and what we can do about it.

UBIQUITOUS

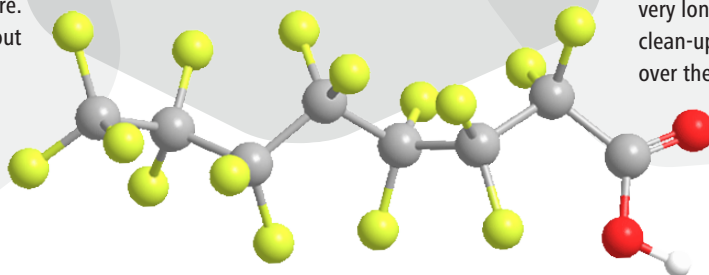
The chemicals are inconspicuous and can be found almost everywhere. Despite this, too little is known about their properties. Out of **millions of compounds**, just under 50 have been studied in detail.

UNHEALTHY

PFAS are a risk to human health and the environment. They are associated with **a number of diseases**.

UNLIMITED

Because they are hardly degraded, PFAS pollute the environment for a very long time. Switzerland alone expects clean-up costs of **CHF 26 billion** over the next 20 years.



PFAS chemicals end up in the environment and pollute it for generations.

Members in this huge class of substances accumulate in the environment and many of them in the human body. PFAS are linked to various diseases such as cancer, metabolic disorders and immune damage and can have an impact on fertility and unborn babies. The transition to safe alternatives is thus urgently needed.



Facts on PFAS from
the Federal Office for
the Environment (FOEN)

Why are PFAS hazardous?

These extremely stable substances are hardly degradable in nature. Some PFAS molecules spread widely in water and through the atmosphere. Many enter the soil and the food chain because they are easily absorbed by organisms. People come into contact with PFAS mainly through food, and accumulate some of the substances in their internal organs. Some of these substances have already been banned.



Why are they ubiquitous?

PFAS have many useful properties, which is why they appear in an astonishing number of everyday products. For example, they are water-, grease- and dirt-repellent as well as heat-resistant.

What do these chemicals last “forever”?

PFAS are fluorocarbon compounds that can remain stable for hundreds of years, i.e. they hardly degrade. They enter the environment during production, use and disposal and accumulate there.

How can I avoid PFAS in everyday life?

- Avoid PFAS-containing products such as Teflon-coated frying pans.
- Use reusable containers instead of disposable packaging.
- Fast food and frozen products such as ready-made pizza can also be contaminated with PFAS due to their processing and disposable packaging.
- Avoid cosmetics with “fluoro” in the list of ingredients and try to avoid waterresistant cosmetics as much as possible.



Facts on PFAS from the Federal Food Safety and Veterinary Office (FSVO)

What are Empa, Eawag and the Ecotox Center doing about it?

- Develop reliable analytics to measure even as yet unknown PFAS
- Investigate the transfer of PFAS into drinking water and the food chain
- Investigate PFAS degradation processes in the environment
- Research the elimination of PFAS through innovative technologies
- Develop safe and sustainable materials that can replace PFAS
- Support public authorities with further education and the determination of threshold values



More information about our work: Research on PFAS at Empa, Eawag and the Ecotox Center

Knowledge & facts, brief and to the point, on important current topics and what Empa, Eawag and the Ecotox Center are doing about it.

