



# Per- and poly-fluoroalkyl (PFAS)

Empowering Community and Removal of Barriers (ECRoB) Project

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PFAS, which stands for per- and poly-fluoroalkyl substances, are a group of human-made chemicals widely used in various industrial and consumer products for decades. They are known for their unique properties, such as heat, water, and oil resistance. PFAS have been used in firefighting foams, non-stick cookware, waterproof fabrics, food packaging, and many other applications.

These chemicals have become a matter of concern due to their persistence in the environment and potential health risks. They are very resistant to degradation, meaning they can persist in the environment for a long time without breaking down. PFAS can accumulate in the bodies of animals and humans, and they have been detected in water, soil, air, and even in the blood of people worldwide.

According to several peer-reviewed studies, exposure to PFAS has been linked to various health effects. Some of the potential risks associated with PFAS exposure include:

- Effects on the immune system: PFAS exposure has been linked to weakening the immune system, making it harder for the body to fight off infections and diseases.
- Developmental and reproductive issues: Some studies have suggested that exposure to PFAS can affect fetal development and lead to problems with fertility and reproductive health in both males and females.
- Increased cholesterol levels: Research has shown that certain PFAS chemicals may raise cholesterol levels in the blood, which could increase the risk of heart disease.
- Increased risk of certain cancers: There is evidence linking PFAS exposure to an increased risk of kidney, testicular, and thyroid cancers, although more research is needed to establish a definitive link.

It is important to note that PFAS regulations and guidelines vary among different countries and regions. However, many governments and organizations are taking steps to reduce the use and release of PFAS into the environment due to their potential risks.

**Keep an eye out for these internationally recognized ECO LOGOS:**



Program name	Logo	Origin of the program
UL ECOLOGO		North America
Ecocert		France
EWG		United States
Green Seal		United States
Ecolabel		European Union

### **Alternatives to PFAS:**

To lead a lifestyle without PFAS exposure, you can search for PFAS-free or PFC-free labelled items. Additionally, opt for products that avoid using any components with the prefixes "perfluoro" or "polyfluoro 2".

**Fabric:** When looking for alternatives to PFAS fabrics, it's crucial to prioritize non-toxic options. Check whether the fabric is made from organic or sustainably sourced fibers. Here are two reputable standards to consider:

**Global Organic Textile Standard (GOTS):** GOTS-certified fabrics are another option. They ensure that the fabric is made from organic fibers and meets stringent environmental and social criteria. To learn more, you can visit their website at: GOTS ([www.global-standard.org](http://www.global-standard.org))

**OEKO-TEX® STANDARD 100:** This certification guarantees that textiles have been tested for harmful substances and deemed safe for human health. You can find more information about this standard in their fact sheet found here: [https://www.oeko-tex.com/fileadmin/user\\_upload/Marketing\\_Materialien/STANDARD\\_100/Factsheet/STANDARD\\_100/OEKO-TEX\\_STANDARD\\_100\\_Factsheet\\_EN.pdf](https://www.oeko-tex.com/fileadmin/user_upload/Marketing_Materialien/STANDARD_100/Factsheet/STANDARD_100/OEKO-TEX_STANDARD_100_Factsheet_EN.pdf)

While both GOTS and OEKO-TEX® focus on safety, GOTS takes a broader approach by considering environmental and social aspects in addition to human health.

GOTS-certified fabrics are required to contain a high percentage of organic fibers, emphasizing sustainability from the source. OEKO-TEX® STANDARD 100 is primarily concerned with ensuring that the final textile product poses no health risks to consumers.

Choosing between the two depends on your priorities. If you're looking for fabric that is not only safe for your health but also environmentally and socially responsible, GOTS is a comprehensive choice. If your main concern is product safety, OEKO-TEX® STANDARD 100 offers a reliable guarantee.

**Water:** There are several types of filters that can remove PFAS from drinking water. Reverse osmosis filters, activated carbon filters, and ion exchange filters are effective in reducing PFAS levels in drinking water. (Nicholas School of Environment, 2020) It's important to note that not all water filters are guaranteed to reduce PFAS levels, so it's important to shop around and read guides like this one to invest wisely in the best filter for removing PFAS. (Lehmann, 2023)

**Cleaning Products:** Cleaning products such as dishwasher detergent, stain removers, and laundry detergent often contain PFAS to improve their effectiveness. Cleaners and stain-removers used in dry-cleaners may also contain PFAS. (Campbell, 2023)

It's important to note that not all cleaning products contain PFAS, so it's important to shop around and read guides like this one to invest wisely in the best cleaning products for your needs. (Campbell, 2023)

**Cosmetics and Personal Products:** According to the FDA, certain PFAS are intentionally added as ingredients in some cosmetic products, including lotions, cleansers, nail polish, shaving cream, foundation, lipstick, eyeliner, eyeshadow, and mascara. These PFAS are used in cosmetics to condition and smooth the skin, making it appear shiny, or to affect product consistency and texture. (US FDA, 2023)

The concentration of certain PFAS in cosmetics, as impurities or as ingredients, ranged from the parts per billion level to the 100s of parts per million range. Not all PFAS that may be found in cosmetics can be readily measured because the specific "fingerprint" or analytical standard of the chemical compound may not be available, making their detection and quantitation challenging.

It's important to note that not all cosmetic products contain PFAS. However, if you're looking for PFAS-free cosmetic products, it's best to read the label of a cosmetic product sold on a retail

basis to consumers. The label declares the ingredients in descending order of predominance. (US FDA, 2023)

**Food Storage:** Prefer glass containers to store food. It's important to note that not all food storage containers are guaranteed to be PFAS-free, so it's important to shop around and read guides like this one to invest wisely in the best food storage containers for your needs. (Heck, 2023)

**Cookware:** When it comes to your cooking utensils:

- Opt for glass, cast iron, ceramic, or stainless-steel cookware.
- Properly dispose of any non-stick cookware at designated toxic disposal facilities within your municipality.
- Some non-stick cookware brands may assert that their products are "safe" due to certain technological advancements; it's essential to exercise caution and not solely rely on these claims as they may not be reliable.

*This tipsheet is not a substitute for professional medical advice. Consult with a healthcare professional for personalized guidance and treatment options for your situation.*

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