

# ENTERING

Eternal companions at the end of the road:  
the possible end of PFAS chemicals.

# THE FINAL PHASE

Takeaway cups, non-stick pans and outdoor clothing are products that could not be more different at first glance. Only on closer inspection do they reveal what they have in common: they repel water, grease and dirt. This is due to the per- and polyfluoroalkyl substances – PFAS for short. The group of these industrially produced chemicals comprises more than 10,000 substances. However, the positive material properties contrast with the negative impacts on humans, animals and nature. PFAS spread easily in the environment and remain in water, soil, plants and living organisms for a long time. They have now been detected all around the world, even in drinking water and in the food chain. The German Federal Institute for Risk Assessment (BfR) estimates that the total intake of alarming PFAS

in around half of the adult population in Germany is above the level at which adverse health effects are not to be expected in the long term.

## PROPOSAL FOR RESTRICTION

Experts from the BfR, the German Federal Institute for Occupational Safety and Health (BAuA) and the German Federal Environment Agency (UBA), together with colleagues from Denmark, the Netherlands, Norway and Sweden, have spent three years assessing the entire group of substances with regard to the risks to humans and the environment and have sought the expertise of industry associations and manufacturers. The result: a restriction dossier of more than 1,500 pages.

## PROTECTION FOR PEOPLE AND THE ENVIRONMENT

According to the European Chemicals Regulation REACH, a restriction procedure is initiated if an unacceptable, inadequately controlled risk is established for a substance. For PFAS, this is mainly due to their extreme persistence. It is estimated that around 4.5 million tonnes of PFAS will be released into the environment over the next 30 years if no restrictions are imposed. In the decision-making process, the risks to humans and the environment are compared with those posed by the available alternatives and weighed against the economic consequences and social significance of the substances.

The dossier was submitted to the European Chemicals Agency (ECHA) for review in January 2023. The aim is a comprehensive ban on the production, use and placing on the market of the entire group of substances and not just individual PFAS. The idea is to prevent the uncontrolled use of “substitute PFAS” with only slight changes to the molecular structure. A recommendation from ECHA’s scientific committees should be submitted to the EU Commission for a final decision by 2024 at the latest. If the PFAS restriction proposal is adopted, this would be one of the most comprehensive bans on chemical substances since the European chemicals legislation (REACH Regulation) entered into force in 2007.

The dossier also contains recommendations for measures, exemptions for important areas and technologies as well as transitional periods. This means that manufacturers have time to develop sustainable alternatives, and there are already some, meaning that nothing stands in the way of the use of takeaway cups and the rest in the future. —

**SUPPOSED MIRACLE PRODUCT WITH A DARK SIDE**

PFAS are used in many products because of their unique properties. These include coolants, textiles, cooking utensils, food packaging and electronic devices. They are now detectable in the environment and in humans. It is known from animal experiments that many PFAS in higher doses can damage unborn babies and the liver as well as impair lipid metabolism, thyroid hormone levels and the immune system. It has been observed in children with elevated PFAS concentrations in their blood that comparatively lower concentrations of antibodies are formed after vaccinations. Some of the substances are also suspected of being carcinogenic. However, no human data or data on the prediction of adverse health effects is available for the majority of the compounds.

**More information**



BfR information “PFAS”

