

# BASF Position on PFAS

## Key messages

- There is no globally uniform definition of PFAS. The European Chemical Agency ECHA published its PFAS Restriction proposal on March 22, 2023. In the current EU proposal, the definition includes over 10,000 substances. The EU universal PFAS restriction proposal will be the broadest REACH restriction ever.
- Some of the major industry sectors using PFAS include aerospace and aviation, automotive, electronics, textiles, construction, and medical articles. The production infrastructure in the chemical sector relies extensively on fluoropolymers, for example to ensure process and occupational safety.
- BASF supports balanced regulatory measures for PFAS. In a safe industrial context, it is important that alternatives for critical applications are available, and that future restrictions or bans do not interrupt value chains.

## About the topic

**Per and polyfluoroalkyl substances (PFAS)** are a class of thousands of chemicals that have in common the presence of carbon-fluorine (CF) bonds. Some PFAS and their degradation products may persist in the environment and the human body. This has led to concerns and, as a result, PFAS substances are subject to restrictive regulatory measures.

As stated in the 2021 OECD Terminology of PFAS, “The term ‘PFAS’ is a **broad, general, non-specific term**, which does not inform whether a compound is harmful or not, but only communicates that the compounds under this term share the same trait for having a fully fluorinated methyl or methylene carbon moiety.”<sup>1</sup> This feature leads to the creation of certain very stable materials. In other words, not all PFAS are the same, and they may have **very different properties**. These chemistries provide products with **strength, durability, stability, and resilience**. These properties are critical to the reliable and safe function of a broad range of products that are important for industry and consumers.

For example, many fluorinated molecules repel water, grease and dirt. As a result, they are essential in key applications such as **semiconductors, electric vehicles and renewable energy generation** and cannot be easily replaced. In chemical production, PFAS can be found, for example, in **seals, conveyor belts and membranes** due to their unmatched physicochemical properties. Their use is **critical** in many industrial processes.

## REACH restriction proposal by Denmark, Germany, Norway, Sweden and the Netherlands

Besides other regional restrictive regulations on PFAS, authorities from four EU member states and Norway submitted a REACH restriction proposal on PFAS (in the following: PFAS restriction”) in January 2023. It has a **universal scope** that extends to virtually all current and future PFAS and their uses. This broad restriction proposal is unprecedented, both in terms of the number of substances in scope (**>10,000**) and the very restrictive options laid out. The proposal would prohibit both the manufacture and marketing of PFAS in Europe and restrict all uses with few exemptions. Depending on the use, the proposed restriction could apply as soon as 2026 or be subject to transitional provisions allowing such use for up to 6.5 or 13.5 years.

## Our position

**BASF is committed to safe and sustainable products and uses its TripleS methodology to steer its portfolio towards more sustainable solutions. BASF supports balanced regulatory measures for PFAS.**

In a safe industrial context, it is important that availability of suitable alternatives for critical applications is established before restrictions or bans enter into force. There are currently no drop-in alternatives for most industrial uses of PFAS as part of the production infrastructure. The proposed PFAS restriction should consider **potential interruptions of value chains and their potential impact on the environment and on health**.

Chemical companies rely on certain PFAS to keep fugitive emissions low, to enhance efficient and robust production, and, above all, to ensure **safe working conditions for employees**. Many of these aspects are governed by regulations and are necessary for companies' license to operate. To meet increasingly strict emissions regulations, modern production plants use state-of-the-art equipment that is fitted with many more valves, gaskets, and pressurized vessels. This results in increasing use of fluoropolymers, and it is currently not possible to operate most chemical plants safely without PFAS-based sealings.

Consequently, BASF supports a **constructive regulatory approach for industrial uses of fluoropolymers and fluoroelastomers**. The current proposal purports to be holistic in scope, although it is drafted based on a prior call for evidence from a limited number of stakeholders, leading to many shortcomings. In view of the widespread lack of suitable alternatives and the need to maintain high safety standards and strict limits on emissions into the environment, **BASF calls for:**

- the substitution of the use of PFAS in industrial equipment where technically possible;
- an exemption on fluoropolymers for industrial uses from the current universal REACH restriction proposal in those cases where no suitable alternatives are available;
- a faster clarification of the essential uses of PFAS for the manufacturing of chemicals and downstream sectors;
- the implementation of collection requirements for used fluoropolymer parts.

#### Abbreviations

ECHA	European Chemicals Agency
PFAS	Per- and polyfluoroalkyl substances

(\*PFAS)

#### References

<sup>1</sup>OECD (2021), Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance. *Series on Risk Management No. 61*. [pdf \(oecd.org\)](https://www.oecd.org/).

<sup>2</sup>BASF (2023), TripleS Sustainable Solution Steering Manual. [https://www.basf.com/global/documents/en/sustainability/we-drive-sustainable-solutions/sustainable-solution-steering/BASF\\_TripleS\\_Manual.pdf](https://www.basf.com/global/documents/en/sustainability/we-drive-sustainable-solutions/sustainable-solution-steering/BASF_TripleS_Manual.pdf).