

PFAS restriction proposal: a key concern for the rail industry

PFAS, a large class of thousands of synthetic chemicals

Per- and poly-fluoroalkyl substances (PFAS)¹ are a family of artificial chemicals with 12 000 different substances. PTFE (Polytetrafluoroethylene) is one of the best-known and widely applied PFAS. The commonly known brand name of PTFE-based composition is *Teflon*[®]. Similarly, *Viton*[®] is the brand name of FKM (fluoro-rubber).

PFAS are used in many products and have various valuable properties: lubricant, water and dirt repellence, durability under extreme conditions (temperature, pressure, radiation, chemicals), electrical and thermal insulation, refrigerants etc.


However, **PFAS have a high persistence associated with potential environmental and human health concerns**, thus their prevalence in high-impact media coverage, which terms them as “*the forever chemicals*”.

ECHA and the PFAS restriction proposal

For this reason, **the European Chemicals Agency (ECHA)**, backed by the national authorities of Germany, Denmark, the Netherlands, Norway and Sweden, published [a PFAS restriction proposal](#)² on 7 February 2023.

The proposed restriction on PFAS is set to be one of the largest ever on chemical substances in the European Union. As a result, manufacturing and placing products on the EU market containing **PFAS will no longer be permitted by 2026 or 2027**. After this, **possible derogations might exist for a use-specific and a time-limited transition period (maximum until 2039) without extension or renewal**. This means work on alternatives by industry is necessary. In addition, particular uses have time-unlimited derogations.³

Some PFASs are already restricted in the EU (PFOS, PFOA, C9-C14 PFCAs). This proposal does not affect these existing restrictions and ongoing decision-making for PFHxS and PFHxA restrictions.



Ban on manufacture, use and placing on the market

- As substances on their own
- As a constituent
- A mixture
- An article

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≥ 25 ppb for any PFASs

≥ 250 ppb for sum of PFASs

≥ 50 ppm * for PFASs

* If total fluorine exceeds 50 mg F/kg the manufacturer, importer or downstream user shall upon request provide to the enforcement authorities a proof for the fluorine measured as content of either PFASs or non-PFASs.

¹ [The PFAS definition used by the OECD](#): “Fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom (without any H/Cl/Br/I atom attached to it), any chemical with at least a perfluorinated methyl group (–CF₃) or a perfluorinated methylene group (–CF₂–) is a PFAS.” The substances in the ECHA restriction scope are also defined by their chemical structure.

² <https://echa.europa.eu/restrictions-under-consideration/-/substance-rev/72301/term>

³ Where to find ECHA provisional derogations? [Annex XV reporting](#) – Draft entry text (pages 4 to 8; column 2, par. 4, 5 and 6) – Table 9 – Annex E – More detailed information peruse sector.

PFAS crucial for the rail supply industry

Besides some consumer uses in cooking pans and food packaging, PFAS are used in many industrial sectors, including the rail supply industry and its entire value chain.

Some PFAS are crucial for the rail supply industry, where these substances are used in various applications - such as refrigerant (F-gases), electronic components, batteries, fuel cells, plastics, textiles, lubricants, adhesives, paints, hydraulic fluids, firefighting foam, etc.

Derogations

ECHA will grant derogations based on the non-availability of alternatives and socio-economic considerations. The balancing trade-off is between restriction costs and the societal cost of continued use. Yet, the **cost-benefit balance is not the determining criterion for derogation. The basis for derogation after the entry into force (EIF):**

18 months after EiF	18 months + 5 years	18 months + 12 years
Alternatives exist	Sufficiently strong evidence that technically and economically feasible alternatives are in development	Sufficiently strong evidence that technically and economically feasible alternatives are not available in near future (R&D)
No or not sufficiently strong evidence that alternatives are not available	Sufficiently strong evidence that alternatives exist, but not available in sufficient quantities and/or cannot be implemented by company before transition period ends	Certification or regulatory approval of PFAS-free alternatives cannot Be achieved within a 5-year derogation period

The procedure

Two ECHA committees will evaluate the list of derogation requests to the PFAS universal restriction:

- The Risk Assessment Committee (RAC) provides an opinion on whether the suggested restriction is appropriate in reducing the risk to human health or the environment.
- The Socio-Economic Analysis Committee (SEAC) provides an opinion on the socio-economic impacts of the suggested restriction.

After adoption, RAC and SEAC opinions will be published and sent to European Commission. After that, a decision will be taken by the European Commission with the Member States at the REACH Committee. Further scrutiny from the EU Council and the European Parliament will be the last step before this restriction is implemented.



UNIFE's actions on the PFAS restriction proposal

Submitting feedback to ECHA's public consultation **before Monday, 25 September 2023**, is essential, as **UNIFE will ask for some derogations for the rail supply industry.**

UNIFE is preparing a contribution to the [public consultation organised by ECHA on the PFAS restriction proposal](#)⁴. In addition, the UNIFE will oversee the mapping of the PFAS used by the railway sector and inform all UNIFE members via emails, online presentations and feedback to the public consultation.

Your companies and suppliers should map all the PFAS you might use and make sure that your uses are included in the UNIFE contribution that will be provided to you.

What should the sector submit to this public consultation?

Any information considered relevant, especially if the proposal identified it as a "specific information request". Comments made without supporting evidence are unlikely to have any impact. Joint submissions are encouraged, for instance, per sector. Confidential information can be submitted via a particular procedure.

To learn more about the PFAS restriction proposal, [ECHA organised a two-hour webinar](#)⁵ explaining how to participate in the consultation.

UNIFE is also an observer of the [FluoroProducts and PFAS for Europe \(FPP4EU\)](#)⁶ group, supervised by the *Cefic*, the European Chemical Industry Council.

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⁴ <https://echa.europa.eu/hot-topics/perfluoroalkyl-chemicals-pfas>

⁵ <https://www.youtube.com/watch?v=JzZrtmaJeoQ>

⁶ <https://www.fpp4eu.eu/>