

OVERVIEW OF CURRENT AND EXPECTED PFAS REGULATIONS ABOUT TO BE FINALIZED IN THE EU (1/2)



THE FOLLOWING INDIVIDUAL SUBSTANCES ARE ALREADY REGULATED

Perfluorooctanoic acid (PFOA)

- Stocking and operation of all foam extinguishing agents whose content of PFOA exceeds the limit of 25 ppb and 1000 ppb precursor (PFOA- esters, amides etc.) specified in EU2020/784 is
 - regulated since 04.07.2020 &
 - prohibited since 01.01.2023.
- Only with existing and officially recognized extinguishing water retention (ExWaRe) is continued operation permissible until 04.07.2025 for use on flammable liquids (fire class B).
- For fires of fire class A, concentrates with > 25 ppb PFOA may already no longer be used since 04.07.2020.

C9 - C14 Perfluorocarboxylic acids (PFCA)

- Stocking and operation of all foam extinguishing agents whose content of PFOA exceeds the limit of 25 ppb and 1000 ppb precursor (PFOA- esters, amides etc.) specified in EU2020/784 is
 - regulated since 04.08.2021 &
 - prohibited since 01.01.2023.
- Only with existing and officially recognized extinguishing water retention (ExWaRe) is continued operation permissible until 04.07.2025 for use on flammable liquids (fire class B).
- For fires of fire class A, concentrates with > 25 ppb sum C9-C14 PFCA may no longer be used since 04.08.2021.

Without an officially approved ExWaRe, extinguishing agents with > 25 ppb PFOA or sum C9 - C14 must be exchanged by 31.12.22. There is also an annual reporting deadline of all inventories to the appropriate authorities.

USEFUL LINKS



[Legal Background](#)



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Perfluorooctane sulfonic acid (PFOS)

Since 2006, the maximum limit in the EU has been 10,000 ppb (10 ppm) PFOS and its salts in accordance with Regulation EU/2019/1021 for stockpiling and operation. All foam agents with > 10 ppm are therefore prohibited and must be replaced immediately.

OVERVIEW OF CURRENT AND EXPECTED PFAS REGULATIONS NEARING COMPLETION IN THE EU (2/2)



FURTHER FORESEEABLE REGULATIONS IN THE NEAR FUTURE

Furthermore, the European Chemicals Agency ECHA aims to regulate the following substances / groups in the foreseeable future - in any case, a ban is expected by the end of the 2020s at the latest:

PFAS (per- and polyfluorinated alkyl compounds - maximum collective term for all fluorosurfactants)

- These substances, also known as „eternity chemicals“, are generally to be regulated in the EU for all applications in the very foreseeable future, which represents the largest regulatory procedure of a substance group in the EU. With regard to foam extinguishing agents, we assume a probable sum value of all PFAS of 1 ppm (1,000 ppb) according to the available ECHA documents.
- The submission of the environmental authorities from Denmark, Germany, the Netherlands, Norway and Sweden to ECHA took place on 13.01.2023 ([ECHA](#)).
- As a result, ECHA formally opened the procedure on February 7, 2023. This procedure means at the latest the final end for all fluorine-containing foam extinguishing agents and many mostly older also supposedly fluorine-free products, which have been unintentionally contaminated during the production process or insufficient cleaning during the previous extinguishing agent changeover.

Perfluorohexanoic acid (PFHxA)

- PFHxA is the end product of many C6-based fluorosurfactants including so-called telomers, which have an ethylene (or similar) spacer attached to the perfluorohexyl group. After its biological degradation, the perfluorohexyl group remains as a persistent residue.
- Thus, with increasing age of the extinguishing agent, the substance is found in mostly elevated concentrations in older extinguishing agents or equipment / vehicles not sufficiently converted from PFOA- or C9 - C14 PFCA-based foam agents.
- The limit value targeted by ECHA is 25 ppb. Adoption of the regulation is expected in early 2023 with a likely end date of 2025, similar to PFOA and the C9 - C14 PFCAs.
- In addition to the aforementioned process for all PFAS, this advanced process means de facto in our view, this advanced procedure effectively means the end for approx. 20 - 50 % of all AFFFs and AFFF-ARs currently on the market and in operation.
- However, numerous mostly older supposedly fluorine-free foam agents are also affected, which have been unintentionally contaminated during the production process or insufficient cleaning during the previous extinguishing agent changeover.
- We currently see this process as probably the most timely „out“ for all PFAS-containing foam extinguishing agents, since PFHxA - as C6 - is also contained in many currently sold „C8-free“ foam extinguishing agents, which exceed the limits for PFOA and
- C9 - C14 PFCA and can therefore currently still be used in compliance with the law.

Perfluorohexane sulfonic acid (PFHxS)

- PFHxS is the end product of the common C6-based fluorosurfactants in foam extinguishing agents, including so-called telomers, which have an ethylene (or similar) spacer adjacent to the perfluorohexyl group, analogous to PFHxA.
- Thus, with increasing age of the extinguishing agent, the substance is found in mostly increased concentrations in older extinguishing agents or systems / vehicles not sufficiently converted from PFOS-based foam agents.
- The limit value targeted by ECHA is also 25 ppb. Adoption of the regulation is expected in early 2023 with a likely end date of 2025, similar to PFOA and the C9 - C14 PFCAs.
- In our view, this procedure means the end for large parts of all AFFFs and AFFF-ARs currently on the market and in operation.
- However, numerous mostly older supposedly fluorine-free foam agents are also affected, which have been unintentionally contaminated during the production process or insufficient cleaning during the previous extinguishing agent changeover.