Product Information

Rittal GmbH & Co. KG

Information on the "ECHA proposal for a restriction of per- and polyfluoroalkyl substances (PFASs)"

On February 7, 2023, the ECHA (European Chemical Agency) published the draft for a restriction of PFASs for the EU as well as Iceland, Liechtenstein and Norway. This draft was originally submitted to ECHA by Germany, the Netherlands, Denmark, Sweden and Norway. PFASs are a group of many thousands of chemicals that are used in a wide variety of areas. The draft is very extensive and detailed, covering all common PFAS applications on 1780 pages.

The draft divides the possible applications into 14 groups:

- TULAC (Textile, upholstery, leather, apparel and carpets)
- Food contact materials and packaging
- Metal plating and manufacture of metal products
- Consumer mixtures
- Cosmetics
- Ski wax
- Applications of fluorinated gases
- Medical devices
- Transport
- Electronics and semiconductors
- Energy sector
- Construction products
- Lubricants
- Petroleum and mining

This information serves only as an initial overview with a focus on fluorinated extinguishing gases. These are included in the group 'Applications of fluorinated gases'.

Which extinguishing gases are included in the proposal?

The group 'Application of fluorinated gases' contains currently used gases, proportions of gas mixtures and new fluorinated gases. These gases, as far as fire extinguishing agents are concerned, are listed in the design guidelines EN 15004 or ISO 14520 under the following designations:

A) HFC-227ea, examples of trade names: FM-200™, MH227®, FE-227™, Solkaflam®227
B) HCFC/A Blend, example of trade names: NAF S III®
C) HFC-125, example for trade names: Ecaro-25®
D) FK-5-1-12, examples of trade names: Novec™1230, Dukare®1230, Noah®5112, MH5112®
E) HB-55, example of trade names: Solstice®Quench 55

How are extinguishing gases considered in the proposal?

In the group 'Application of fluorinated gases', 78% are cooling and air conditioning, 17% are blowing agents for foams, 3% are extinguishing gases, 2% are aerosols.

Annex E of the restriction proposal considers special circumstances for extinguishing gases. Below is an excerpt of the original text:

- Several alternatives could potentially be used for different forms of application. Looking at these alternatives, there are certain drawbacks when in use and they have to be selected carefully.
- Example drawbacks:
  - Blends containing CO2 involve the risk of effects on human health
  - Water mist may not be used with water sensitive equipment
  - For certain applications, alternatives are missing in terms of cleanliness (meaning leaving no residue), limited toxicity and fast acting capabilities.
- In the near future, there is no indication a non-PFAS alternative will be available.
- Economic impacts linked to differences in efficacy of alternatives causing increased fire damageand leading to,
  - Increased downtime at data centres
  - Possible loss of data
  - Loss of cultural heritage

The draft restriction of use therefore formulates the following recommendation for the further procedure for extinguishing gases:

“18-month transitional period after Entry into Force (EiF), followed by a 12-year derogation from ban.”

The considerations behind this recommendation are:

- The need for confidence in fire safety systems, which indicates potential for significant welfare.
- To limit significant risk on human life.
- To avoid potential destruction of valued assets damaged by fire or other fire suppressants.

What are the next steps?

1. public review and discussion of the ECHA proposal
2. submission of the proposal to the EU Commission
3. voting process in the Council and EU Parliament

Conclusion

Based on the information available and the current proposal, as well as the current timeline, it is unlikely that the regulation will enter into force before the end of 2025. In this case, the extinguishing gases covered by the proposal will be available at least until mid-2039, taking into account the transition phase and exemption.
As this is an ongoing process, we will monitor it and provide regular updates on further progress and changes.

Links:
https://echa.europa.eu/de/-/echa-publishes-pfas-restriction-proposal