

CTIF Hazmat Commission



COMMENT ON THE RESTRICTION PROPOSAL OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFASs) IN FIREFIGHTING FOAMS

29 July 2022

To whom it may concern,

CTIF Hazmat Commission appreciates the opportunity to provide input to the European Chemical Agency on the Annex XV Restriction Report per- and polyfluoroalkyl substances (PFASs) in firefighting foams.

CTIF Hazmat Commission is a part of CTIF - The International Association of Fire and Rescue Services. CTIF is a worldwide organisation working for firefighter's safety since the year 1900.

The primary mission of CTIF is to work to better understand, and continuously improve, the working conditions for firefighters through ongoing dialogue, analysis and sharing of lessons learned from incidents, accidents and fires throughout the world. CTIF ensures the exchange of experience and knowledge in the field of protection and rescue in case of fire or other disasters. CTIF publishes scientific research, articles and reports. We also organise various commissions, working groups, events and seminars. CTIF prides itself as being an unprestigious organisation where knowledge, expertise and passion for firefighting means more than official titles, or whether a member is full time or volunteer. Most results are shared in the form of reports, manuals and best practices, free of charge. It is CTIF's ambition to continuously also work to share more digital material in the form new media, photography and video presentations.

CTIF consists of 12 Commissions, and 3 working groups, each governed by a Head of Commission and a Commission Secretary. CTIF Hazmat Commission was established in 1993. The Head of Commission is Mr. Roman Sykora from Austria and the Commission Secretary is Mr. Nigel Blumire from the United Kingdom.

Main activities / purpose of CTIF Hazmat Commission:

- Exchange of Lessons Learned with other member countries,
- Cooperation with other Commissions and Agencies (e. g. CTIF, FEU, UN, EU),
- Evaluation of Hazmat education and courses for firefighters in the different countries,
- LNG - Liquefied Natural Gas: Tactics and Experiences,
- Interactive database for Dangerous Goods,
- Work on the adoption of common approaches to Chemical, Biological, Radiological and Nuclear (CBRN) incidents for First Responders,
- Knowledge exchange of CBRNE and Toxic Industrial Material/Chemical tactics,
- Strengthen awareness in the area of safety and security for first responders,
- Enlarge the number of participating CTIF member countries.

CTIF Hazmat Commission members include the following countries and organisations: Austria, Belgium, CERN, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Iveco, Latvia, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States.

CTIF Hazmat Commission appreciates the work of European Chemicals Agency and absolutely support the full transition to fluorine-free firefighting foams in the interests of the health protection of people and the environment.

On the other hand, we would like to comment on the difficulties contacted with transition to fluorine-free foams from the firefighters' and other firefighting foam users' point of view, which is discussed below.

a) Transition periods from the entry into force

Following recent legislation changes¹, the transition to PFOA-free foams has been mainly formal, since the reliable manufactures shifted to "C6-based" fluorinated foams some time ago. In this case, the transitional period was determined to be more than 5 years.

As opposed to restriction of PFOA, its salts and related compounds, the restriction proposal of entire group PFASs in fire-fighting foam concentrates, will lead to fast and substantial changes. However, the proposed restriction of the entire group of PFASs in fire-fighting foam concentrates introduces very short transition periods (see table 1)².

Sector/type of use or placing on the market	Transitional period from the entry into force
Seveso establishments	10 years
Other industries	5 years
Civilian aviation	5 years
Defence	5 years
Municipal fire services	18 months
Ready-to-use applications	5 years
Marine applications	3 years
Training and testing	18 months
Export	10 years

Table 1. Proposed transitional periods for the restriction per sector/type of use²

Firefighters and other users mostly use synthetic fire-fighting foam concentrates with shelf life 10 years or even more. The proposed transitional periods do not respect this aspect and it will cause unnecessary economic loss. Longer transition periods would be in line with "natural" replacement of PFAS-containing foam concentrates in the end of its shelf life. In our opinion, there is very short transitional period for Municipal fire services proposed, which may not achievable.

Substitution consists of these steps: a) suitable choice of fluorine-free firefighting foam concentrates, b) replacement PFAS-containing firefighting foam concentrates, c) decontamination of tanks and equipment, d) disposal of waste, e) training with fluorine-free foam concentrates, f) gaining practical experience during emergencies.

¹ Commission Delegated Regulation (EU) 2020/784 of 8 April 2020 amending Annex I to Regulation (EU) 2019/1021 of the European Parliament and of the Council as regards the listing of perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds.

² ANNEX XV RESTRICTION REPORT – PFASs IN FIREFIGHTING FOAMS. European Chemicals Agency. <https://echa.europa.eu/documents/10162/4524f49c-ae14-b01b-71d2-ac3fa916c4e9> (accessed July 29, 2022).

Restriction proposal does not account for points e) and f). Fluorine-free foams have different properties compared to PFAS-containing foams. Fluorine-free foams have their advantages (full biodegradability, very good burn-back resistance) but also disadvantages (different efficiency for different flammable liquids, high dynamic viscosity in case of FFF/AR - alcohol resistant fluorine free-foam concentrates).

Firefighters and other users have to confirm or ensure full compatibility of all types of fluorine-free foam concentrates with fire trucks, equipment and other devices. High dynamic viscosity of FFF/AR can cause difficulties, e. g. imprecise mixing with water, high pressure loss, varying quality of generated foam.

Proposal of CTIF Hazmat Commission no. 1

We recommend to ECHA design longer transition periods equal to 8 years for this sector or type of use: a) other industries, b) civilian aviation, c) defence, d) municipal fire services, e) ready-to-use applications, f) marine applications.

b) Definition of sectors or type of use, guidelines

In the restriction proposal² and its annexes³ there is very general definition of each sector and type of use and sometimes it can be a little bit confusing. For example, there are many kinds of fire brigades in each European country including also municipal fire brigades. Fire brigades can be responsible for different types of emergencies and many of them have to use PFAS-containing firefighting foam concentrates (e. g. AFFF, AFFF/AR). The replacement can be crucial also for municipal fire brigades depending on their district. Fire brigades and municipal fire brigades could be divided into much more groups, not only according to Directive 2012/18/EU (Seveso III).

Proposal of CTIF Hazmat Commission no. 2

We recommend to ECHA more detailed description of sectors or type of use to avoid misunderstanding. CTIF Hazmat Commission advises ECHA to issue obligatory guidelines with throughout description of rules when the Regulation EU comes into force.

c) The allowed concentration of total PFASs

In the proposed restriction² on the export, placing on the market and use of PFASs in firefighting foams there is suggested the limit of total concentration of PFASs equals to 1 ppm. The limit can be fulfilled but sometimes it is hardly feasible. According to TOPA we observed occasionally a lit bit higher concentration of total PFASs in new fluorine-free foam concentrates, but not grater then 3 ppm.

The transition to fluorine-free foam concentrates will can also mean replacement of equipment like pumps, nozzles and maybe complete foam fire trucks. The cleaning cost will be partly determined by the maximum allowed remaining contamination and due to is necessary to investigate more deeply allowed total concentration limits of PFASs.

³ ANNEXES TO ANNEX XV RESTRICTION REPORT. European Chemicals Agency.

<https://echa.europa.eu/documents/10162/faf3207a-4910-292e-e994-2ab1281a0512> (accessed July 29, 2022).

Proposal of CTIF Hazmat Commission no. 3

We recommend to ECHA to increase the allowed concentration of total PFASs to equal 3 ppm and determinate TOPA as a decisive method.

Conclusion

CTIF Hazmat Commission proposes to introduce a smooth and natural transition from PFAS-containing foams to fluorine-free foams, with both types of foams to coexist for the next ca 8-10 years. Longer transition periods are required to verify the performance and properties of new fluorine free foams and to further their testing during different scenarios, as well as real-life situations (emergencies).

The longer transitional period is necessary due to other reasons as well. More time is deemed necessary to enable the substitution of PFAS-containing foams for new fluorine free foams. Firefighters and other users need time to use up existing stockpile to avoid economic loss. The extra time will also be beneficiary for researching new foam alternatives by manufactures.

CTIF Hazmat Commission also recommend to ECHA more detailed description of sectors or type of use to avoid misunderstanding. CTIF Hazmat Commission advises ECHA to issue obligatory guidelines with deeper description of rules when the Regulation EU comes into force and to consider the allowed concentration of total PFASs in firefighting foams.



Members of CTIF Hazmat Commission



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