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ECHA's firefighting foams restriction proposal: survey on the use of firefighting foams

Background

The European Chemicals Agency (ECHA) has been requested by the European Commission to prepare a restriction proposal under REACH for the use of per- and polyfluoroalkyl substances (PFAS) in fire-fighting foams^{1,2}. In this context a report on the use of firefighting foams was prepared for the European Commission and ECHA³, assessing two potential restriction scenarios. ECHA is now seeking additional information from the sectors using these foams in order to also investigate additional restriction options other than a ban. ECHA welcomes information on the following:

- Foam annual usage and disposal rates
- Types of use of PFAS and fluorine-free ("F-free") firefighting foams
- Amount of firefighting foam stock in the EU
- Number of sites, installations, vehicles and fire incidents
- Risk management measures already in place and possible improvements
- Transitional periods

Why responding to the survey is important?

- It can help determine which regulatory risk management measure would be most appropriate.
- It can help identify sector-specific constraints in relation with transitional periods.

By responding to this [survey](#), you give your consent that the submitted information can be made publicly available. If you plan to submit **confidential information**, please do so directly via [ECHA's submission page](#). In this case, please indicate clearly which elements are confidential.

If some fields in the survey are irrelevant to you, feel free to skip them.

Please respond to the survey in appendix before 4 June 2021

¹ See Registry of restriction intentions until outcome for dossier update <https://echa.europa.eu/registry-of-restriction-intentions/-/dislist/details/0b0236e1856e8ce6> and the following page for generic information and timelines of the REACH restriction process: <https://echa.europa.eu/restriction-process>

² Please note that other regulatory measures at EU level, which might impact the use of firefighting foams have already been initiated (e.g. the restriction on undecafluorohexanoic acid (PFHxA), its salts and related substances. Any information provided to ECHA in the context of the restriction work on PFAS in firefighting foams will only be used for this specific proposal and not for other regulatory measures. See status at <https://echa.europa.eu/registry-of-restriction-intentions/-/dislist/details/0b0236e18323a25d>

³ https://echa.europa.eu/documents/10162/28801697/pfas_flourine-free_alternatives_fire_fighting_en.pdf/d5b24e2a-d027-0168-cdd8-f723c675fa98

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You can also forward this survey to other relevant stakeholders you might identify. If you have any question regarding this survey, please contact us at [REDACTED] [@echa.europa.eu](mailto:[REDACTED]@echa.europa.eu)

Thank you for your cooperation.

Risk Management Unit II
European Chemicals Agency

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Appendix - ECHA's firefighting foams restriction proposal: survey on the use of firefighting foams

By responding to this survey, you give your consent that the submitted information can be made publicly available. If you plan to submit **confidential information**, please do so directly via [ECHA's submission page](#). In this case, please indicate clearly which elements are confidential.

Contact information	
First name	
Last name	
Country	
Organisation	
E-mail	
Telephone	

1. Annual usage rates of PFAS-based firefighting foams across sectors

Compared to your annual purchase quantity of firefighting foam concentrates, please indicate the typical annual usage/disposal quantities for PFAS-based and fluorine-free foam concentrates used for:

- "in service use", i.e. to prevent or manage a fire (e.g. covering of flammable liquid leaks, fire incidents)
- Training purposes
- Testing purposes, including testing of systems for their function (please specify)
- Disposed of because of having reached expiry date or because of having been rendered non-functional due to improper handling (please exclude the quantities of PFAS C8 foams disposed of due to the POP Regulation requirements related to PFOA – please specify).

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The submitted information is valid for: Tick the right box	
One site	☐
The whole company/organisation for sites located in the EU	☐
The sector as a whole at Member State level	☐
The sector as a whole at EU level	☐
Other: please specify	☐

1.1 <u>On-land</u> use of fire-fighting foams				
Life cycle stage/use type	% of PFAS-based foams annual purchases	Amount of PFAS-based foams annual purchases (T/y) Discrete numbers or ranges: 1-10,10-100, 100-1000, >1000	% of F-free foams annual purchases	Amount of F-free foams annual purchases (T/y) Discrete numbers or ranges: 1-10,10-100, 100-1000, >1000
In service use, i.e. to prevent or handle a fire				
Training				
Testing (e.g. testing of foam agents to evaluate their suitability on specific combustibles or testing of correct proportioning of firefighting foam concentrates but excluding testing of the firefighting systems for their function)				
Testing of the firefighting systems for their function				
Disposed of because of having reached expiry date or because of having been rendered non-functional due to improper handling (please exclude the				

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quantities of PFAS C8 foams disposed of due to the POP Regulation requirements related to PFOA – please specify)				
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1.2 Off-shore use of fire-fighting foams				
Life cycle stage/use type	% of PFAS-based foams annual purchases	Amount of PFAS-based foams annual purchases (T/y) Discrete numbers or ranges: 1-10,10-100, 100-1000, >1000	% of F-free foams annual purchases	Amount of F-free foams annual purchases (T/y) Discrete numbers or ranges: 1-10,10-100, 100-1000, >1000
In service use, i.e. to prevent or handle a fire				
Training				
Testing (e.g. testing of foam agents to evaluate their suitability on specific combustibles or testing of correct proportioning of firefighting foam concentrates but excluding testing of the firefighting systems for their function)				
Testing of the firefighting systems for their function				
Disposed of because of having reached expiry date or because of having been rendered non-functional due to improper handling (please exclude the quantities of PFAS C8 foams disposed of due to the POP Regulation requirements related to PFOA – please specify)				

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2. Stocks of firefighting foam concentrates

Please describe the amount of firefighting foam concentrates you have in stock.		
	For <u>on-land</u> use	For off-shore use
	Stock (tonnes) Discrete numbers or ranges: 1-10, 10-100, 100-1000, >1000	Stock (tonnes) Discrete numbers or ranges: 1-10, 10-100, 100-1000, >1000
C8 PFAS foams		
<C8 PFAS foams		
Fluorine-free foams		

3. Number of sites using firefighting foams, number of firefighting installations, vehicles and incidents

Can you indicate within your company or organisation the number of sites using firefighting foams (industrial sites, airports, ships, harbours, etc.), the average number of fire-related incidents per year handled with PFAS-foams (distinguishing small and large), the number of fixed firefighting installations and mobile firefighting equipment (e.g. fire trucks). If known, please also provide a total estimate for the whole sector in your Member State or at EU level. This information will be used to estimate costs related to e.g. clean-up of equipment and technical adaptations needed in equipment to use alternatives foams.

Please describe the amount of firefighting foam concentrates you have in stock.					
On-land sites					
Number of on-land sites using PFAS firefighting foams	Type of site – select:		Number of on-land sites using fluorine-free firefighting foams	Type of site – select:	
Discrete number or range: 1-10, 10-100, 100-1000, >			Discrete number or range: 1-10, 10-100, 100-1000, >		
	Industrial manufacturing site	☐		Industrial manufacturing site	☐

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	Military bases	☐		Military bases	☐
	Civil airports	☐		Civil airports	☐
	Harbour	☐		Harbour	☐
	Municipal fire brigades	☐		Municipal fire brigades	☐
	Other: please specify	☐		Other: please specify	☐

Do on-land sites using PFAS foams usually also use fluorine-free foams? (tick box)

Yes ☐

No ☐

Other (please specify) ☐

Please describe the amount of firefighting foam concentrates you have in stock.

Off-shore sites

Number of off-shore sites using PFAS firefighting foams. Discrete number or range: 1-10,10-100, 100-1000, >	Type of site – select:		Number of off-shore sites using fluorine-free firefighting foams. Discrete number or range: 1-10,10-100, 100-1000, >	Type of site – select:	
	Off-shore industrial site (e.g. oil platform)	☐		Off-shore industrial site (e.g. oil platform)	☐
	Other (please specify)	☐		Other (please specify)	☐

Do off-shore sites using PFAS foams usually also use fluorine-free foams? (tick box)

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Yes ☐

No ☐

Other (please specify) ☐

On-land use			
Number of small fire-related incidents per year handled with PFAS-foams		Amount of PFAS foam used per year for handling small fire-related incidents (T/y)	
Number of large fire-related incidents per year handled with PFAS-foams		Amount of PFAS foam used per year for handling large fire-related incidents (T/y)	
Number of small fire-related incidents per year handled with F-free foams		Amount of F-free foam used per year for handling small fire-related incidents (T/y)	
Number of large fire-related incidents per year handled with F-free foams		Amount of F-free foam used per year for handling large fire-related incidents (T/y)	

Off-shore use			
Number of small fire-related incidents per year handled with PFAS-foams		Amount of PFAS foam used per year for handling small fire-related incidents (T/y)	
Number of large fire-related incidents per year handled with PFAS-foams		Amount of PFAS foam used per year for handling large fire-related incidents (T/y)	
Number of small fire-related incidents per year handled with F-free foams		Amount of F-free foam used per year for handling small fire-related incidents (T/y)	
Number of large fire-related incidents per year handled with F-free foams		Amount of F-free foam used per year for handling large fire-related incidents (T/y)	
Please describe below how you defined "small" and "large" incidents. If you have used F-free foams on large fire incidents, please describe how you would assess the performance of this use compared to using PFAS-based foams.			

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Fixed firefighting systems (systems not being able to move from one place to another to reach the incident site)

Number of fixed firefighting systems using PFAS foams	
Number of fixed firefighting systems using F-free foams	

Do the fixed firefighting systems using PFAS foams usually also use fluorine-free foams? (tick box)

Yes ☐

No ☐

Other (please specify) ☐

Mobile firefighting systems (systems being able to move from one place to another to reach the incident site, e.g. fire trucks)

Number of mobile firefighting systems using PFAS foams (e.g. fire trucks)	
Number of mobile firefighting systems using F-free foams (e.g. fire trucks)	

Do the mobile firefighting systems using PFAS foams usually also use fluorine-free foams? (tick box)

Yes ☐

No ☐

Other (please specify) ☐

Additional information

Insert your reply here

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4. Risk management measures already in place

Do your sites have installations or mechanisms to collect firewaters run-offs in case of fire-related incidents? If yes, can you describe them (e.g. bunded areas, waterproof ground, pumps, etc.) and evaluate the share of firewaters generated during a large accident which is possible to collect by such means?

If firewaters are collected, can you describe if and how they are handled and treated, including an estimate of their effectiveness in preventing releases to the environment? (e.g. sent to wastewater treatment plant, use of activated carbon filters, use of PFAS precipitating agents, incineration in municipal domestic waste incinerators or in hazardous waste incinerators). Supporting justification for effectiveness estimates (e.g. monitoring studies, scientific papers) should be provided.

Insert your reply here

5. Possible improvements of risk management measures

On-land use of firefighting foams

If continued use of PFAS foams would be allowed for your sector if linked to appropriate risk management measures including e.g.:

- the mandatory presence of waterproof bunded areas around the tanks/installations at fire risk able to retain all firewaters in case of a major fire accident or to direct them to a waterproof storage place;
- the mandatory presence of waterproof storage places for all firewaters in case of a major fire accident (storage until adequate treatment of the firewaters is completed);
- onsite or access to off-site treatment facilities for effective treatment / disposal of firefighting foam concentrates and

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firewaters using techniques that would minimise potential releases to the environment (e.g. high temperature incineration in hazardous waste incinerators);

what would be the necessary technical adaptations (e.g. enhanced waterproofing of bunded areas, installation of pumps or storage tanks for firewaters, installation of firewater pre-treatment devices, etc.), the associated costs, the implementation timeline and expected effectiveness? Please identify any appropriate risk management measures in addition to those identified above.

Please, specify if these adaptations would be technically and economically feasible for all or only for part of your sites?

Insert your reply here

Off-shore use of firefighting foams

If continued use of PFAS foams would be allowed for your sector for a certain period of time if linked to appropriate risk management measures, what would be the possible improvement of these risk management measures to minimise the emission of PFAS in the environment? Can you describe what would be the necessary technical adaptations the associated costs, the implementation timeline and expected efficiency?

Insert your reply here

6. Transitional periods

The [report made for EC-ECHA](#) depicts different substitution potentials and possible transition periods towards fluorine-free foams for different sectors or types of uses (see pages 191-194). Do you have any comments on the impacts of different transitional periods? Could substitution to fluorine-free

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foams take place during the proposed periods?

Please describe if the situation is different for on-land and off-shore use of firefighting foams?

Insert your reply here

7. Techniques and costs for firewaters handling and site clean-up

If you have experience with both PFAS and fluorine-free foams, could you describe if there is a difference between these two in terms of procedures and costs in handling and treating the firewaters and in cleaning-up the site after the use of foams? "Clean-up" is defined here as the cleaning activities undertaken at a site shortly after firefighting foam has been used (as opposed to "remediation" which refers to the decontamination of historical pollution).

On-land use		
	PFAS foams	Fluorine-free foams
Description of the technique used for handling and treating firewaters		
Firewaters treatment costs (per L or per foam use instances, please specify)		
Average volume of firewaters generated by a foam use instance (L)		
Description of the technique used for the site clean-up		
Site clean-up costs (per tonne of foam concentrate used or per instance of foam use, please specify)		
Average amount of foam concentrate used per foam use instance (tonnes)		

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8. Specific comments on EC-ECHA report

If you have specific comments on [report](#) made for EC-ECHA we invite you to send them, referring to the concerned paragraphs and substantiating your arguments with evidence.

Insert your reply here

Do you agree that ECHA contacts you for any follow-up questions on the topic of use of firefighting foams? (Tick box)

Yes ☐

No ☐