

Guidance Leaflet

PFOA in Fire-Fighting Foams

Why are some PFAS a problem?

Per- and polyfluoroalkylated substances (PFAS) are a group of manmade chemicals that may be found in aqueous film-forming foam (AFFF) used in some fire suppression systems, including portable handheld fire extinguishers. While PFAS encompass a very large number of substances and the effects of most of these are unknown, PFAS (such as perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS)) are widely recognised as harmful to humans and the environment. PFAS are often described as the “forever chemicals” due to their persistent nature - meaning they break down very slowly, if at all, in the environment and so can pose long term risks. Furthermore, many PFAS present in fire-fighting foams are both bioavailable and bioaccumulative, meaning they are easily absorbed by living organisms and can increase in concentration within the body. PFAS discharged on land, can contaminate the soil, or be washed off into streams, rivers, potentially contaminating groundwater and drinking water supplies.

Controls on PFOS and PFOA

Fire-fighting foams commonly contain PFAS, including PFOS historically and, more recently, PFOA. PFOS and its related substances were severely restricted under the Stockholm Convention in May 2009, followed by restrictions on PFOA its salts and its related compounds in May 2019. While the use of PFOS is already banned, there are some time-limited exemptions for the use of PFOA its salts and related compounds, under the Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021. The Environmental Protection Agency (EPA) is responsible for overseeing implementation of the POPs Regulation’s requirements in Ireland.

While the current focus is the time-limited restrictions on the use of PFOA, its salts and PFOA-related compounds, further restrictions are likely to extend to other PFAS including proposals under the EU Chemical Strategy for Sustainability to eliminate all non-essential uses of PFAS which may include usage in AFFF. With further restrictions likely, it is recommended that you consider switching to PFAS free alternatives, known as “fluorine free” foams, in the coming years.

The restrictions on AFFF containing PFOA and its salts at concentrations above 0.025mg/kg, and PFOA-related compounds at total concentrations above 1mg/kg (hereafter referred to as “AFFF containing PFOA”) are as follows:

Applicable Date	Restriction(s)
From July 4, 2020	<ul style="list-style-type: none"> All existing stocks of AFFF containing PFOA installed in a premises <u>may only be used for Class B fires</u>¹. Use of AFFF containing PFOA is prohibited for training purposes. Testing of equipment/systems of AFFF containing PFOA is only allowed if releases are contained and can be properly disposed of.
From January 1, 2023	Uses of AFFF containing PFOA are permitted only where foam release can be contained.
From July 4, 2025	All uses of AFFF containing PFOA are prohibited.

If your fire systems (including handheld fire extinguishers) have AFFF containing PFOA, then the following obligations apply to you:

Applicable Date	Obligation(s)
From July 04, 2020	<ul style="list-style-type: none"> Notification to the EPA is required if you intend to continue to use AFFF containing PFOA for the permitted purposes. Any AFFF containing PFOA that are to be discarded, must be managed as a waste using a suitably authorised waste contractor. This applies to suppliers and end users. If the total weight of AFFF containing PFOA contained within fire suppression systems, including hand-held extinguishers exceeds, 50 kg, at a given location, you must notify such stocks to the EPA and report to the EPA of the continued retention of these foams annually. Please note: The deadline for receipt of report of stocks of greater than 50kg of AFFF containing PFOA is the 4th July annually.
From July 4, 2025	<ul style="list-style-type: none"> All existing stocks of AFFF containing PFOA must be managed appropriately by a suitably authorised waste management contractor (please check EPA website at www.pops.ie for lists of contractors). Notification made to the EPA of proper disposal/management of stocks of AFFF containing PFOA including proof of appropriate management.

¹ Class B Fires – Flammable Liquids (petrol, diesel, spirits, paint, etc.)

What do I need to do now?

The use of AFFF containing PFOA not already installed in systems before July 4, 2020 is prohibited and your supplier should be aware of this. To find out what your obligations are, if any, the following actions are suggested:

Step 1

Contact your supplier to understand whether your fire suppression systems, including fire extinguishers, retained at any given location contain AFFF. This may also be done by checking the system specifications or in the case of portable extinguishers, checking the labelling.

Systems do not contain AFFF

No further action required

Systems do contain AFFF

Step 2

Determine whether any of your fire suppression systems contain **AFFF containing PFOA**. Please note, that restrictions also apply to foams that “may contain” PFOA and related substances where there is reasonable doubt in relation to the composition of the foam. This information may be provided in the manufacturer’s Safety Data Sheet (SDS); however, the absence of such information may not imply the AFFF does not contain PFOA or related substances. In any case, you should contact your supplier for this information requesting confirmation of any analysis conducted.

Fire suppression system does not contain PFOA-containing AFFF

No action currently required

Systems do contain AFFF containing PFOA

Step 3

If any of your systems contain AFFF containing PFOA and:

- If you intend to continue to use these stocks, then you need to notify the EPA of your intention by emailing pops@epa.ie and proceed to step 4; and
- If you do not intend to use the existing stocks of AFFF containing PFOA, then you must ensure these stocks are managed by an appropriately authorised waste management company.

Step 4

If specific data on the PFOA content is not available or if the SDS sheet indicates that your foam contains fluorine, you may need to have the foam tested and analysed. This should include laboratory analysis of the foam for PFOA (CAS No. 335-67-1). A full list of substances that are classed as “PFOA, its salts and PFOA-related compounds” is available at www.pops.ie – this currently consists of 32 substances but will be added to in the future and further testing of foams may be required.

Step 5

If any of your fire suppression systems have AFFF containing PFOA, you need to establish how much AFFF containing PFOA you currently have at each location, i.e., within the site boundary. This includes any building where AFFF containing PFOA in hand-held fire extinguishers are installed, including, for example, hotels, schools, universities, warehouses, retail outlets, offices, garages and hospitals. If the total amount of AFFF containing PFOA is greater than 50 kg at a location, you must notify the stocks, along with other associated information, to the EPA and notify the EPA annually of the material(s). You must also prepare a stockpile management plan of AFFF containing PFOA (including hand-held extinguishers and/or foam concentrate). Further information on how to notify and report to the EPA is provided below.

Details of some of the commonly used foams in Ireland and their PFAS classifications can be found on the EPA website at www.pops.ie and ‘[Determining Historic and Current PFAS Levels in AFFF in the Republic of Ireland](#)’.

How to Report Stocks of AFFF Containing PFOA to the EPA

1. To notify the EPA of your intention to continue to use AFFF containing PFOA (or potentially containing PFOA), please email pops@epa.ie with the following information:
 - a) Name and address of location where foam is installed;
 - b) Quantity or quantities and brand(s) of foams;
 - c) Details of any laboratory analysis carried out and results obtained or any information available on the chemical composition of the foam; and
 - d) Contact details of person(s) making the notification.

2. Where you have a stockpile of more than 50 kg of AFFF containing PFOA (including materials contained in hand-held extinguishers and/or foam concentrate) at a concentration above 0.025 mg/kg and/or a combination of PFOA-related compounds >1 mg/kg, at a given location, you are required to report annually to the EPA before 04 July via EDEN. This can be done as follows:
 - a) Sign up or log on to the EPA's [EDEN portal](#);
 - b) Request access to the 'POPs Application' in EDEN. You will need to wait for your application request to be approved by the EPA;
 - c) When EPA EDEN application approval is granted, launch the EDEN POPs application;
 - d) Provide the requested information which will include the following:
 - i. Stockpile nature/use – installed within fire suppression systems (including fire extinguishers), medical device production etc., please note – may be a combination of uses;
 - ii. Concentration of PFOA and/or PFOA-related substance(s) within each stockpile component (the 50kg limit refers to an aggregate weight and so may be made up of “sub-stockpiles”);
 - iii. Location & quantity of stockpile;
 - iv. Contact details of person(s) making the notification;
 - v. How the stockpile is managed and stored; and
 - vi. Disposal details where sent off -site for disposal.

Further information on notifying and reporting can be found on the EPA website at www.pops.ie.

Links/ website address(es) for relevant detailed guidance and further information:

[EPA POPs Page](#)

[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 \(Text with EEA relevance\)](#)

[The Changing Nature of Fire-Fighting Foam – Understanding the Risk Posed by PFAS – Guidance Booklet](#)