



2025/1988

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COMMISSION REGULATION (EU) 2025/1988

of 2 October 2025

amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council as regards per- and polyfluoroalkyl substances in firefighting foams

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC ⁽¹⁾, and in particular Article 68(1) thereof,

Whereas:

- (1) Per- and polyfluoroalkyl substances ('PFAS') are a family of thousands of synthetic chemicals that are used widely in the Union, including in firefighting foams. PFAS are defined by the Organisation for Economic Cooperation and Development ('OECD') as any substances that contain at least one fully fluorinated methyl (CF₃) or methylene (CF₂) carbon atom (without any H/Cl/Br/I atom attached to it) ⁽²⁾.
- (2) The 'very persistent' criterion is set out in point 1.2.1 of Annex XIII to Regulation (EC) No 1907/2006. PFAS by far exceed the criterion to be considered very persistent and they show a variety of additional hazardous properties. Most are mobile in water and therefore lead to contamination of groundwater, surface water and biota. This is a particular concern when drinking water sources are affected. Some PFAS are suspected carcinogens, cause harm to the developing child and trigger effects at low concentration in organs such as the liver or the immune systems. There are some indications that PFAS are potential endocrine disruptors. However, there are insufficient data to adequately quantitatively assess the effects of most PFAS on human health and the environment.
- (3) In 2019, the Council of the European Union called on the Commission to develop an action plan to eliminate all non-essential uses of PFAS ⁽³⁾. In 2020, the European Parliament urged the Commission to set firm deadlines to ensure speedy phasing out of all non-essential uses of PFAS ⁽⁴⁾. In the Chemicals Strategy for Sustainability ⁽⁵⁾, the Commission mentioned that PFAS require special attention and therefore proposed a comprehensive set of actions to address the use of and contamination with PFAS.
- (4) The potential impacts of PFAS pollution on the environment and possibly human health have raised concerns in various parts of the world. Australia, Canada, Japan, Korea, China, Russia and the United States have adopted risk reduction approaches on PFAS ⁽⁶⁾. Denmark has already adopted dedicated measures to prohibit the import, sale and use of PFAS-containing firefighting foam concentrate in drill sites. National restrictions potentially hamper the good functioning of the internal market and therefore the harmonisation of restriction rules on PFAS-containing firefighting foam is necessary at Union level.

⁽¹⁾ OJ L 396, 30.12.2006, p. 1, ELI: <http://data.europa.eu/eli/reg/2006/1907/oj>.

⁽²⁾ OECD Report of 9 July 2021, Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance (ENV/CBC/MONO(2021)25).

⁽³⁾ Council conclusions – Towards a Sustainable Chemicals Policy Strategy of the Union, 26 June 2019, 10713/19.

⁽⁴⁾ European Parliament resolution of 10 July 2020 on the Chemicals Strategy for Sustainability (2020/2531(RSP)).

⁽⁵⁾ Chemicals Strategy for Sustainability, Towards a Toxic-Free Environment (COM(2020) 667 final).

⁽⁶⁾ <https://www.oecd.org/chemicalsafety/portal-perfluorinated-chemicals/riskreduction/>.

- (5) Considering the concern raised with regard to the substitution of firefighting foams containing perfluorooctanoic acid ('PFOA') with other fluorine-based ones, as well as the increasing availability of alternatives, and to ensure a high level of protection of human health and the environment in the Union, on 17 July 2020, pursuant to Article 69(1) of Regulation (EC) No 1907/2006 the Commission asked the European Chemicals Agency ('the Agency') to prepare a dossier which conforms to the requirements of Annex XV to that Regulation, with a view to a possible restriction of PFAS in firefighting foams ⁽⁷⁾.
- (6) On 23 March 2022, the Agency submitted the Annex XV dossier, which was amended and finalised on 13 January 2023 ('the dossier') ⁽⁸⁾. The dossier showed that about 30 000 tonnes of firefighting foams are produced in the Union per year by around 25 companies. Despite previous restrictions on certain PFAS in firefighting foams, 18 000 tonnes (60 %) of the current formulated tonnage of firefighting foams contain PFAS. The dossier estimated a total annual emission of around 470 tonnes of PFAS from formulation, training and use in fire incidents.
- (7) PFAS-containing firefighting foams are used for extinguishing fires that involve flammable liquids ('class B fires') in a variety of sectors (e.g. oil/(petro-)chemical sector, municipal fire brigades, marine applications, airport, defence and portable fire extinguishers). By far, the largest sector of use is the oil/(petro-)chemicals industry consuming 59 % of the annual tonnage of firefighting foams containing PFAS in the Union. PFAS-containing firefighting foams are used both for training and in a variety of 'live' fire incidents, ranging from small fires to large tank fires. If not regulated, the continued use of PFAS in firefighting foams will lead to increasing environmental contamination, continued environmental emissions and further human exposure.
- (8) The Agency concluded that the risks to human health and the environment from the use of PFAS in firefighting foams in the Union are not adequately controlled and that a restriction under Regulation (EC) No 1907/2006 is the most appropriate means to address the identified risks. A Union-wide action to address the risks associated with PFAS in firefighting foams is needed to ensure a harmonised high level of protection of human health and the environment across the Union and to ensure the free movement of goods within the Union.
- (9) The dossier also concluded that the precise identities of the specific PFAS currently used in firefighting foams are largely unknown due to manufacturer confidentiality. Industry stakeholders report that the PFAS mostly belong to the C6 chain length category which are undecafluorohexanoic acid related substances. However, substances with shorter chain length structures have also been used in firefighting foams and novel, unregulated PFAS could theoretically be developed for use in firefighting foams in the future. Consequently, the dossier concluded that a restriction covering the whole PFAS class, irrespective of the market status of specific PFAS, rather than specific PFAS or sub-groups of PFAS is appropriate to address the risks from PFAS in firefighting foams, including those arising from so-called 'regrettable substitution' in the future.
- (10) In the dossier, the Agency considered five different restriction options and concluded by proposing a ban on the placing on the market and use, including formulation, of PFAS in firefighting foams, providing sector-specific transitional periods. According to the Agency, the placing on the market of portable fire extinguishers containing PFAS should be restricted after a transitional period of 6 months, while the use of PFAS-containing firefighting foams for training and testing and use by municipal fire services should be restricted after a transitional period of 18 months. A longer transitional period of 3 years was considered necessary for the use of PFAS-containing firefighting foams in civilian ships and of 5 years for the use of PFAS-containing firefighting foams in civil aviation, defence, and portable fire extinguishers. The Agency considered a transitional period of up to 10 years to be justified for the use of PFAS-containing firefighting foams at establishments covered by Directive 2012/18/EU of the European Parliament and of the Council ⁽⁹⁾, including notably large atmospheric storage tank fires and industries dealing with numerous different flammable liquids at the same site.

⁽⁷⁾ https://echa.europa.eu/documents/10162/17233/request_echa_pfes_fff_en.pdf/aa089887-bc27-e642-747e-b935809075cc?t=1601895611682.

⁽⁸⁾ <https://echa.europa.eu/documents/10162/4524f49c-ae14-b01b-71d2-ac3fa916c4e9> and <https://echa.europa.eu/documents/10162/8011247f-14bb-c77e-189e-4df733dd16b2>.

⁽⁹⁾ Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC (OJ L 197, 24.7.2012, p. 1, ELI: <http://data.europa.eu/eli/dir/2012/18/oj>).

- (11) In the dossier, the Agency also proposed to set the concentration limit for PFAS in firefighting foams to 1 mg/L⁽¹⁰⁾. According to the Agency, this limit would prevent any intentional use of PFAS in the firefighting foam concentrates and would avoid the majority of emissions. Moreover, the Agency considered that this concentration limit should apply also to equipment that has been used with PFAS-containing firefighting foams, since such limit could be achieved by a relatively simple cleaning process.
- (12) Finally, the Agency proposed an obligation for users of firefighting foam (except in portable fire extinguishers) to prepare 'PFAS-containing firefighting foam management plans' and apply best-practice risk management measures to allow them to continue using PFAS-containing foams during any applicable transitional period.
- (13) On 16 March 2023, the Agency's Committee for Risk Assessment ('RAC') adopted its opinion⁽¹¹⁾ concluding that the restriction proposed by the Agency on PFAS in firefighting foams, as modified by RAC, is the most appropriate Union-wide measure to address the identified risk in terms of the effectiveness in reducing the risk, practicality and monitorability.
- (14) RAC supported the use of the OECD definition for PFAS for the purpose of grouping the substances. RAC acknowledged that it may be possible to identify PFAS or sub-groups that are not suitable for use in firefighting foams due to their inherent properties but considered that exclusion of identified PFAS or sub-groups which are not likely to be used is not warranted. If certain PFAS are not suitable, they are not impacted by this restriction and the effort required to identify such groups and substances would not be justified. Furthermore, excluding sub-groups gives rise to the possible inadvertent exclusion of PFAS which may be found to be suitable in future but with similar hazardous properties. RAC considered that the high persistence of PFAS in combination with other hazards presents grounds for significant concern. RAC considered the emissions of PFAS to the environment from the use of firefighting foams containing PFAS as estimated by the Agency to be reliable estimates and agreed that releases should be used as a proxy for risk and should be minimised.
- (15) RAC agreed that a Union-wide restriction under Regulation (EC) No 1907/2006 on PFAS as a group is the most appropriate measure to reduce the risks of PFAS in firefighting foams. RAC also agreed that the restriction should address the risks from the placing on the market and the use of the PFAS, including formulation, in all firefighting foams applications as they contribute to environmental emissions. Those releases present a risk to humans and the environment, and the risk increases with continued use due to PFAS' persistence and the consequent increase in their environmental stocks over time. Despite regulatory efforts over more than a decade, RAC is of the opinion that current risk management measures and operational conditions do not sufficiently address the risk.
- (16) RAC supported the proposal to require operators to establish site-specific management plans. RAC also agreed with the conditions on the adequate disposal, treatment and labelling of collected PFAS-containing waste. In addition, RAC indicated the need to ensure that waste from the cleaning of the firefighting equipment is handled for adequate treatment, and that biological wastewater treatment is not considered an adequate treatment. RAC noted that biological wastewater treatment is the most common disposal method for collected runoff water containing firefighting foams, but that the treatment has limited efficiency in removing PFAS and, in addition, the disposal of waste sludge can also be a significant PFAS source. In the event that PFAS-containing waste is incinerated or co-incinerated, RAC indicated that the temperature should be above 1 100 degrees Celsius. However, RAC also noted that additional disposal techniques may be developed in the future and therefore did not propose to further define adequate treatment beyond the conditions proposed in the dossier.

⁽¹⁰⁾ Corresponding to 1 ppm, 1 000 ppb or 0,0001 % (w/v).

⁽¹¹⁾ <https://echa.europa.eu/documents/10162/897b2ca5-e15b-e6c5-a2ef-c7af4f1110a1>.

- (17) On 7 June 2023, the Agency's Committee for Socio-Economic Analysis ('SEAC') adopted its opinion⁽¹²⁾. SEAC concluded that the restriction proposed by the Agency on PFAS in firefighting foams is the most appropriate Union-wide measure to address the identified risks, taking into account the socioeconomic benefits and costs of PFAS, provided that a review on the availability of alternatives for establishments covered by Directive 2012/18/EU is carried out before the end of the transitional period proposed for the placing on the market and use at such establishments. Moreover, SEAC recommended the inclusion of an obligation to review the substitution progress for the use of PFAS-containing firefighting foams at offshore oil and gas installations before the end of the transitional period for that use.
- (18) SEAC concluded that, despite some uncertainties, the socioeconomic costs of the proposed restriction, estimated to be about EUR 7 billion over a period of thirty years, reflect the correct order of magnitude. SEAC agreed with the Agency that the benefits of the proposed restriction are the avoided environmental emissions, which were estimated by the Agency to be about 13 200 tonnes over thirty years if the risk management measures proposed by the Agency are implemented. SEAC noted that the central value of the cost-effectiveness ratio of about EUR 500 per kilo of avoided emissions is within the order of magnitude of recent restrictions for persistent chemicals. SEAC also noted that the inclusion of risk management measures for training and fire incidents had a limited impact on the cost-effectiveness ratio of the proposed restriction and therefore, considered those measures to be justified. SEAC also considered that the restriction could result in other positive impacts, such as avoided environmental remediation costs and incentivising earlier innovation in PFAS alternatives leading to an increased competitiveness of the European chemicals industry, as well as some uncertain or possibly negative impacts, such as on greenhouse gas emissions and not adequately extinguished fire events if alternatives do not perform as well as PFAS-containing foams.
- (19) SEAC concluded that technically and economically feasible alternative firefighting foams, which are not fluorine-based, are available and can be implemented in most but not all sectors or uses by the end of the transitional periods proposed by the Agency. In particular, SEAC considered that the availability of suitable alternatives has not yet been fully demonstrated for the use in establishments covered by Directive 2012/18/EU and for offshore oil and gas installations. To ensure the full development, testing and adoption of suitable alternatives, SEAC recommended longer transitional periods than those proposed by the Agency for placing on the market of portable fire extinguishers dispensing alcohol resistant foam, for use in the marine sector and for use at offshore oil and gas installations. For the use of portable fire extinguishers, SEAC recommended a transitional period until 31 December 2030 rather than a five-year transitional period as proposed by the Agency.
- (20) SEAC noted the additional condition recommended by RAC requiring a minimum incineration temperature of 1 100 degrees Celsius. However, SEAC could not conclude on the costs associated with this recommendation, introducing an additional element of uncertainty in the assessment.
- (21) The Agency's Forum for Exchange of Information on Enforcement, referred to in Article 76(1), point (f), of Regulation (EC) No 1907/2006 ('Forum'), was consulted during the restriction process and its opinion has been taken into account.
- (22) On 31 August 2023, the Agency submitted the opinions of RAC and SEAC to the Commission.
- (23) Taking into account the dossier and the opinions of RAC and SEAC, the Commission considers that an unacceptable risk to human health and the environment arises from the placing on the market and use of PFAS in firefighting foams, which needs to be addressed on a Union-wide basis.
- (24) Therefore, the Commission considers that a restriction for the placing on the market and use of PFAS in firefighting foams, as established by this Regulation, is the most appropriate Union-wide measure to address the identified risk, taking into account its socioeconomic impact and availability of alternatives.

⁽¹²⁾ <https://echa.europa.eu/documents/10162/897b2ca5-e15b-e6c5-a2ef-c7af4f1110a1>.

- (25) The Commission considers that the wide scope of the restriction covering all PFAS as defined by the OECD is appropriate, in view of the concerns set out in the dossier and confirmed by RAC and SEAC. The persistency of all PFAS, including their degradation products, is the core concern leading to increasing environmental concentrations. Many PFAS are highly mobile in the environment and studies have established a range of other hazards for PFAS, often depending on their specific structure. The Commission notes that the precise identities of those PFAS currently used in firefighting foams are largely unknown due to manufacturers' commercial confidentiality and that a wide restriction scope is needed to avoid regrettable substitution between different individual PFAS, which all meet the 'very persistent' criterion set out in point 1.2.1 of Annex XIII to Regulation (EC) No 1907/2006 and therefore lead to contamination of groundwater, surface water and biota.
- (26) The Commission considers that it is uncertain whether some PFAS sub-groups can be used in firefighting foams and, therefore, pose a risk to human health and the environment. However, taking into account the Union's commitment to phase-out PFAS where possible, as mentioned above, the Commission considers that the wide chemical scope of the restriction is justified to ensure the identification of the substances that fall within the scope of this restriction, avoiding the inadvertent exclusion of PFAS which may be found to be suitable for the use in firefighting foams in the future and ensuring the practicality of the restriction.
- (27) The Commission agrees with the concentration limit as proposed by RAC and SEAC, which is a concentration of 1 mg/L for the sum of all PFAS. The Commission considers that for legal certainty and to facilitate compliance and enforcement of this restriction, firefighting foam should be defined in this Regulation as any mixture to fight fires with foam, as well as the different types of firefighting foam mixtures at the various stages of the value chain and use, including the firefighting foam concentrate which requires dilution with water to form the firefighting foam solution, the firefighting foam solution and the firefighting foam which is the firefighting foam solution mixed with air during use. Although there is limited availability of analytical methods for each individual PFAS, total fluorine methods may be used for the purpose of demonstrating compliance with the restriction in line with the advice of the Forum. The Commission considers that the restriction is enforceable and this is strengthened, in particular, by the combination of the availability of total fluorine methods and the labelling requirement.
- (28) The Commission notes that the implementation of the restriction on specific groups of PFAS in firefighting foams under Regulation (EU) 2019/1021 of the European Parliament and of the Council⁽¹³⁾ demonstrated that even after cleaning in accordance with best available techniques, PFAS residues may remain in the equipment and may be present in newly installed fluorine-free firefighting foams. In view of this, the Commission acknowledges that setting a concentration limit of PFAS of 1 mg/L as recommended by the Agency may lead to the replacement of any firefighting foam equipment which had previously been used with PFAS-containing firefighting foams. Therefore, the Commission considers it appropriate to set a limit of 50 mg/L for the total of all PFAS in firefighting foams originating from such equipment. This concentration limit should only apply to fluorine-free firefighting foams newly installed in equipment after its cleaning. In view of the developments on the measurement of the rebound effect and evolving cleaning methods for the equipment, the Commission should review this derogation within 5 years from entry into force of this Regulation. The derogation should not apply to portable fire extinguishers as they are expected to be progressively replaced in their entirety. In the case that the extinguishers are reused, the general concentration limit of 1 mg/L should apply to any firefighting foam released from the extinguisher.
- (29) Certain PFAS sub-groups or certain of their uses should be excluded from the prohibition of the placing on the market and use of this restriction since they are already subject to restrictions or prohibitions in the Union. Perfluorooctane sulfonic acid (PFOS), its salts and PFOS-related compounds, perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds, and perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds which are subject to prohibitions in Annex I to Regulation (EU) 2019/1021 should be excluded from the prohibition on the placing on the market and use. Perfluorocarboxylic acids with a chain length of 9 to 14 carbon atoms (C9-C14 PFCAs) are covered by the existing restriction under entry 68 of Annex XVII to Regulation (EC) No 1907/2006 and should be excluded from the restriction on the placing on the market and use. The uses of undecafluorohexanoic

⁽¹³⁾ Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants (OJ L 169, 25.6.2019, p. 45, ELI: <http://data.europa.eu/eli/reg/2019/1021/oj>).

acid (PFHxA), its salts and PFHxA-related substances restricted by paragraphs 4 and 5 of the existing restriction under entry 79 of Annex XVII to Regulation (EC) No 1907/2006 should also be excluded from the restriction on the placing on the market and use. The amount of PFAS from those derogated PFAS sub-groups should be included in the determination of the concentration of the sum of all PFAS for the purpose of this restriction. The risk management measures of paragraphs 7 to 10 imposed as a condition of use of this restriction should apply to PFAS from those sub-groups where their use in firefighting foams is still allowed.

- (30) The formulation, processing and storage of firefighting foams containing PFAS, including any of those uses for the production of firefighting foams in the Union irrespective of the destination of the firefighting foams, whether for the Union or third countries, are covered by the definition of 'use' as set out in Article 3(24) of Regulation (EC) No 1907/2006. Therefore, the Commission considers that it is not necessary to specify a restriction on the formulation of PFAS firefighting foams in addition to the restriction for the use of PFAS in such firefighting foams, as was proposed by RAC and SEAC.
- (31) As regards both the placing on the market and the use of PFAS in firefighting foams, the Commission considers a general transitional period of 5 years appropriate. This is the deferral period supported by RAC and SEAC for the use of PFAS in firefighting foams in the general group of all applications and sectors which are not covered by a more specific time-limited derogation which covers a number of heterogeneous sites and different substitution processes. Such a deferral period is also supported by SEAC for the use of PFAS in firefighting foams used for civilian aviation (including civilian airports), and also recommended for ships, including tankers, ferries, tugboats and other commercial vessels, as well as for defence. Therefore, since the placing on the market to supply for those uses also needs to be allowed, it is appropriate to apply the same transitional period for both the placing on the market and the use of PFAS in firefighting foams.
- (32) As regards placing on the market of alcohol resistant firefighting foams containing PFAS in portable fire extinguishers, the Commission agrees with the transitional period of 18 months recommended by SEAC. For the placing on the market of other portable fire extinguishers, the Commission considers a transitional period of 12 months, instead of 6 months as advised by RAC and SEAC, appropriate to ensure there is sufficient time and capacity for stakeholders to obtain the required certification in all Member States.
- (33) Moreover, the Commission considers it appropriate to allow the placing on the market of PFAS in firefighting foams beyond the 5-year transitional period for the sole purpose of supplying the uses still benefitting from a derogation once that time has elapsed.
- (34) The Commission agrees with the transitional period of 18 months from entry into force for the use of PFAS in firefighting foams used for training and testing and by public fire services or private fire services exercising the function of public fire services. The Commission also agrees that public fire services should still be allowed to use PFAS-containing foams for a period of 10 years in case they need to intervene and extinguish industrial fires at establishments covered by Directive 2012/18/EU. However, such foams and the equipment should be used for that purpose only.
- (35) Furthermore, the Commission agrees with the transitional period until 31 December 2030 for the use of PFAS in firefighting foams for portable fire extinguishers, as proposed by SEAC, as this would allow sufficient time to ensure that the manufacturing capacity for PFAS-free portable fire-extinguishers can meet the increasing demand to replace existing PFAS-containing ones.
- (36) The Commission agrees with the transitional period of 10 years for the use of PFAS in firefighting foams, as proposed by SEAC, for establishments covered by Directive 2012/18/EU and for installations belonging to the offshore oil and gas industry, allowing sufficient time for the successful implementation of alternatives that meet the required standards to ensure fire safety at those sites. Launch facilities for the space industry falling under the establishments covered by Directive 2012/18/EU will consequently have a transitional period of 10 years.

- (37) Moreover, as regards the use of PFAS in firefighting foams, SEAC supported a 5-year transitional period for ships, including military ships. Nevertheless, the Commission considers that there is a need to take into account the specific defence requirements of all surface and sub-surface military vessels, irrespective of their length and gross tonnage, compared to civilian ships, which affect the technical feasibility of implementing alternatives, specificities of the navy firefighting doctrine, and to ensure interoperability with third countries in joint military exercises, and therefore requiring more time. In addition, the Commission considers that for civil ships with firefighting foams containing PFAS already placed on board a transitional period of 5 years is too short given the required modifications to the foam system which can only be carried out during drydock. Therefore, the Commission considers it appropriate to set a transitional period of 10 years from the entry into force of this Regulation for the use of PFAS in firefighting foams used for military vessels and civil ships with firefighting foams containing PFAS already placed on board.
- (38) The Commission should review the derogation for the uses of PFAS in firefighting foams for establishments covered by Directive 2012/18/EU, installations belonging to the offshore oil and gas industry, military vessels and civil ships with firefighting foams containing PFAS already on board, before the end of the 10-year transitional period for those uses, to monitor the substitution progress for those uses.
- (39) For the purpose of minimising the impact of emissions into the environment originating from uses of PFAS allowed under the restriction, the Commission considers it appropriate to subject the uses of PFAS in firefighting foams during the 5 year and 10 year transitional periods to adequate measures to reduce any release of PFAS into the environment to a level as low as is technically and practically possible. The Commission considers that 12 months is an appropriate timeline for the implementation of such measures by the users. The Commission agrees that those measures should also include the collection for adequate treatment of stock of not-utilised firefighting foams and PFAS-containing waste, including wastewater, originating from the use of firefighting foams and from the cleaning of the equipment, where technically and practically possible. According to RAC, for the purpose of achieving adequate treatment, biological wastewater treatment should be excluded and, in the event of incineration, PFAS-containing waste should be incinerated at a temperature of at least 1 100 °C. The Commission considers that adequate treatment ensures that the PFAS content is destroyed or irreversibly transformed. The Commission agrees with RAC that any inadequate form of treatment, such as biological wastewater treatment or incineration of PFAS-containing waste below a temperature of 1 100 °C should be excluded. Moreover, the Commission agrees with RAC's recommendation that firefighting foams containing PFAS should only be used against fires involving flammable liquids (class B fires).
- (40) Furthermore, to ensure that appropriate measures are adopted and documented, as well as to facilitate enforcement, the Commission considers it appropriate that as a condition of use under this restriction users of firefighting foams containing PFAS prepare a management plan, specific for the place of use of the foam. The management plan should include information on, among other things, use conditions and volumes, collection and adequate treatment, cleaning, plans in the event of accidental leakage/spillage and a strategy for substituting firefighting foams containing PFAS with fluorine-free firefighting foams. Users should keep such management plan available for at least 15 years for inspection by competent authorities.
- (41) For the purpose of ensuring that firefighting foams containing PFAS are handled appropriately and to facilitate enforcement, the Commission agrees with the recommendation by the Agency, RAC and SEAC to label firefighting foams placed on the market containing PFAS in concentrations equal to or greater than 1 mg/L. Such labelling requirement should also apply to stock of not-utilised firefighting foams and PFAS-containing waste, including wastewater, originating from the use of firefighting foams. The Commission considers a deadline of 12 months is appropriate allow enough time for users to comply with such labelling obligation.
- (42) Regulation (EC) No 1907/2006 should therefore be amended accordingly.
- (43) The measures provided for in this Regulation are in accordance with the opinion of the Committee established under Article 133 of Regulation (EC) No 1907/2006,

HAS ADOPTED THIS REGULATION:

Article 1

Annex XVII to Regulation (EC) No 1907/2006 is amended in accordance with the Annex to this Regulation.

Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 2 October 2025.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX

In Annex XVII to Regulation (EC) No 1907/2006, the following entry is added:

‘82. Per- and polyfluoroalkyl substances (PFAS) defined as: any substance that contains at least one fully fluorinated methyl (CF₃) or methylene (CF₂) carbon atom (without any H/Cl/Br/I attached to it).	1. Shall not be placed on the market or used as of 23 October 2030 in firefighting foams in a concentration equal to or greater than 1 mg/L for the sum of all PFAS. 2. Paragraph 1 shall not apply to: (a) perfluorooctane sulfonic acid (PFOS), its salts and PFOS-related compounds C₈F₁₇SO₃X, to perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds and to perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds, covered by Annex I to Regulation (EU) 2019/1021; (b) linear and branched perfluorocarboxylic acids of the formula C_nF_{2n+1}-C(=O)OH where n = 8, 9, 10, 11, 12, or 13 (C9-C14 PFCAs) including their salts, and any combinations thereof, restricted under entry 68; (c) undecafluorohexanoic acid (PFHxA), its salts and PFHxA-related substances, for uses restricted under entry 79. 3. When determining the concentration of the sum of all PFAS, the substances to which the derogation in paragraph 2 applies shall be included in the determination. 4. By way of derogation from paragraph 1, the concentration of PFAS in fluorine-free firefighting foams originating from the equipment which has undergone cleaning in accordance with best available techniques, excluding portable fire extinguishers, shall not exceed 50 mg/L for the sum of all PFAS. The Commission shall review this derogation no later than 23 October 2030. 5. By way of derogation from paragraph 1, PFAS may be placed on the market in a concentration equal to or greater than 1 mg/L for the sum of all PFAS: (a) until 23 October 2026 in firefighting foams in portable fire extinguishers; (b) until 23 April 2027 in alcohol-resistant firefighting foams in portable fire extinguishers; (c) until 23 October 2035 in firefighting foams for: (i) establishments covered by Directive 2012/18/EU. Civilian aviation (including in civilian airports) shall not be covered by this derogation; (ii) installations belonging to the offshore oil and gas industry; (iii) military vessels; (iv) civilian ships with firefighting foams placed on board before 23 October 2025.
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	6. By way of derogation from paragraph 1, PFAS may be used in firefighting foams in a concentration equal to or greater than 1 mg/L for the sum of all PFAS: (a) until 23 April 2027 for: (i) training and testing, except functional testing of the firefighting systems provided that all releases are contained; (ii) public fire services and private fire services exercising the function of public fire services, except where those services intervene at industrial fires at establishments covered by Directive 2012/18/EU and the use of the foams and the equipment for that purpose only; (b) until 31 December 2030 in portable fire extinguishers; (c) until 23 October 2035 for the cases referred to in paragraph 5, point (c). The Commission shall review the derogations under point (c) before the end of the period of validity of that derogation. 7. As of 23 October 2026 the use of PFAS in firefighting foams in a concentration equal to or greater than 1 mg/L for the sum of all PFAS pursuant to paragraph 1 and paragraph 6, point (c), shall be subject to the conditions of this paragraph. The user shall: (a) ensure that firefighting foams are only used for fires involving flammable liquids (class B fires); (b) reduce emissions to the environmental compartments and direct and indirect human exposure to firefighting foams to as low a level as is technically and practically possible; (c) ensure the separate collection of stock of not-utilised firefighting foams and PFAS-containing waste, including wastewater, originating from the use of firefighting foams, where technically and practically possible, and ensure their handling for adequate treatment in such a way that the PFAS content is destroyed or irreversibly transformed; (d) establish a "PFAS-containing firefighting foams management plan" specific for the place of use of the firefighting foams containing PFAS which shall include: (i) details of the use conditions and volumes of firefighting foams on site, documenting how the conditions set in point (b) are met; (ii) information on the collection and adequate treatment pursuant to point (c); (iii) details on the type and methods of cleaning and maintenance of equipment;
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	(iv) plans to be implemented in the event of accidental leakage/spillage of firefighting foam including where relevant, the documentation of the follow-up actions; (v) a strategy for substituting firefighting foams containing PFAS with fluorine-free firefighting foams. The management plan shall be reviewed annually and be kept available for at least 15 years for inspection, on request, by competent authorities. 8. As of 23 October 2026, firefighting foams in which the concentration is equal to or greater than 1 mg/L of the sum of all PFAS, that are placed on the market, excluding portable fire extinguishers, shall be labelled in accordance with paragraph 10. Unless the Member State(s) concerned provide(s) otherwise, the label shall be written in the official language(s) of the Member State(s) where the firefighting foam is placed on the market. 9. As of 23 October 2026, users of PFAS-containing firefighting foam shall ensure that stock of not-utilised firefighting foams and PFAS-containing waste, including wastewater, originating from the use of firefighting foams, is labelled in accordance with paragraph 10 where the concentration of the sum of all PFAS is equal to or greater than 1 mg/L. Unless the Member State(s) concerned provide(s) otherwise, the label shall be written in the official language(s) of the Member State(s) where the stock of not-utilised firefighting foams and PFAS-containing waste, including wastewater, originating from the use of firefighting foam is generated and will be treated. 10. For the purpose of paragraphs 8 and 9, the labelling shall include the following wording: “<i>WARNING: Contains per- and polyfluoroalkyl substances (PFAS) with a concentration equal to or greater than 1 mg/L for the sum of all PFAS</i>”. This information shall be visibly, legibly and indelibly marked. 11. For the purpose of this entry, the following definitions shall apply: (a) “portable fire extinguisher” means a fire extinguisher designed to be carried and operated by hand which in working order has a mass of not more than 20 kg, in accordance with the standard EN3-7; a mobile extinguisher of not more than 150 litres, in accordance with the standard EN-1866; and a spray can extinguisher in accordance with the standard EN-16856; (b) “firefighting foam” means any mixture to fight fires with foam and includes but is not limited to firefighting foam concentrates and firefighting foam solutions to produce the foam; (c) “stock of not-utilised firefighting foam” means firefighting foam which has not yet been used to fight fires.’
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