

PFAS Regulation in Firefighting foam for the Marine Sector

There are several different regulatory frameworks for PFOS/PFOA on ships, and these are governed by several overlapping systems:

- Stockholm Convention on Persistent Organic Pollutants
- European Union's POPs Regulation
- IMO/SOLAS rules for on-board fire-fighting foam
- Port State Control
- REACH/PFAS restrictions
- Basel/Rotterdam Conventions (which are often confused but have different functions)

PFOS is globally banned through the Stockholm convention. Globally – All countries that have signed the SC POPs, connected with the states legislation where ship is flagged. The specific port laws where the ship has anchored along with regional laws under EU/ EEA. This means that all the states should ban or strongly limit PFOS; eliminate use where alternatives are present; control storage and waste, as well as prohibit further use of PFOS. However; SC POPs is not directly towards a ship / vessel as a legal “person “, but it is up to each state to introduce national legislation. The ship will also be affected by the legislation of the state where the ship is flagged, along with the legislation of the actual port it enters if the port lies within EU/EAA region.

For all EU/ EEA flagged vessels EU legislation 2019/ 1021 SC is stricter compared to SC POPs. An EU/ EEA flagged ship must comply with this legislation no matter where they are. This means that PFOS containing foam can no longer exist in their extinguishing systems, and re-fill / re-supply of PFOS firefighting foam is prohibited. NON-EU flagged ships operating in EU/ EEA ports/-harbors must comply with the same EU 2019/1021 SC. This means that when the ship is arriving, retrieve service dispatch or retrieve goods or refill firefighting foam within the EU / EEA region it must comply with EU and national legislation of the port/ harbor they visit. This means in theory that PFOS firefighting foam cannot be sold or refilled in EU/EES. EU/EEA suppliers cannot offer prohibited PFOS foam and harbor authorities, and PSC inspection can intervene.

Therefore, PFOS containing foam in ships is considered phased out and not used anymore.

PFOA is restricted within EU, and it is prohibited to place on market EU / EEA since 4th July 2020. Resupply within EU/ EEA is prohibited above the legal limitations. The usage onboard is severely limited and all waste must be handled like PFAS contaminated waste. This is compliant for EU/ EEA flagged ships, suppliers within EU/EEA and businesses within EU/ EEA harbors. NON-EU flagged ships can be exposed to an inspection from the local harbor office, and legal measures can be applied. Any activity like docking at a port, receiving service, refilling firefighting foam or use of foam within EU / EEA apply to EU / EEA legislation.

- Stockholm convention POPs regulation
- EU 2019/1021 legislation applies within EU/EES
- EU legislation- EU flagged ships
- NON-EU flagged ships that operate in EU/ EEA port through port state jurisdiction

Overview on PFAS in Firefighting Foams - Marine Sector

Regulation	Legal reference	PFAS Limit foam conc'	UTC limit/ PFAS limit after cleaning system	Key Maritime Notes	Deadline
A. IMO/ SOLAS- Global Maritime Instrument					
PFOS	SOLAS Chapter II-2, Part C, Reg. 10 (MSC.532(107), MSC.536(107), MSC.537(107))	≤ 0.025 mg/kg (PFOS & salts) ≤ 1.00 mg/kg (PFOS-related)	≤ 10 mg/kg (0.001% w/w)	Applies to fixed & portable systems. New ships (keel ≥ 1 Jan 2026): comply at delivery. Existing ships: first survey on/after 1 Jan 2026. Non-SOLAS vessels are not covered by this regulation.	Jan 1, 2026
B. Stockholm convention (SC) POPs Regulation (200 states) and EU/EEA – Applies to vessels					
PFOS	POP Regulation (EU) 2019/1021, Annex I (as amended by Reg. (EU) 2025/718)	≤ 0.025 mg/kg (PFOS & salts) ≤ 1.00 mg/kg (PFOS-related)	≤ 0.025 mg/kg (PFOS & salts) ≤ 1.00 mg/kg (PFOS-related)	All vessels that comply with SC POPs.* All EU/EEA flagged ships and NON-EU /EEA ships operating in EU /EEA waters or harbors.	Dec 3, 2025
PFOA	POP Regulation (EU) 2019/1021, Annex I (as amended by Reg. (EU) 2020/784 & 2025/1399)	≤ 0.025 mg/kg (PFOA & salts) ≤ 1.00 mg/kg (PFOA-related)	UTC ≤ 10 mg/kg (PFOA) ≤ 10mg/kg (PFOA-related) [installed systems only; interim until Aug 3, 2028]**	All vessels that comply with SC POPs.* All EU/EEA flagged ships. NON-EU flagged ships operating in EU /EEA waters or harbors. Not valid if the vessel is in international waters.***	Dec 3, 2025
PFHxS	POP Regulation (EU) 2019/1021, Annex I (Reg. (EU) 2023/1608)	≤ 0.025 mg/kg (PFHxS & salts) ≤ 1.00 mg/kg (PFHxS-related)	UTC levels for already existing systems ≤ 0.10 mg/kg	All vessels that comply with SC POPs.* All EU/EEA flagged ships. NON-EU flagged ships operating in EU /EEA waters or harbors. Not valid if the vessel is in international waters.***	Aug 28, 2023

C9-C14 PFCAs	REACH Annex XVII (Reg. (EU) 2021/1297) Entry 68	≤ 0.025 mg/kg (PFCAs & salts) ≤ 0.260 mg/kg (PFCAs-related)	≤ 0.025 mg/kg (C9-C14) PFCAs & salts ≤ 0.260 mg/kg (C9-C14) PFCAs-related	All vessels that comply with SC POPs*. All EU/EEA flagged ships. NON-EU flagged ships operating in EU /EEA waters or harbors. Not valid if the vessel is in international waters.***	July 4, 2025****
C.REACH Regulation (EC) No 1907/2006, Annex XVII- Applies to vessels in EU/ EEA					
Universal PFAS -ban	REACH Annex XVII (Reg. (EU) 2025/1988) Entry 82	< 1mg/kg total PFAS	< 50 mg/kg total PFAS for 5 Years, then a revision of the legislation will be conducted	All EU/ EEA flagged vessels and NON-EU flagged, operating in EU /EEA waters and harbors.	Civil ships (pre- installed): 23 Oct 2035 Foam supplied after 23 Oct 2025 – until 23 Oct 2030

*Vessels flagged by country that have signed the SC POPs regulation must comply. However; SC POPs is not directly towards a ship / vessel as a legal “person “, but it is up to each state to introduce national legislation.

**After Aug 3, 2028 the legal limits will be ≤ 0.025 mg/kg (PFOA & salts), ≤ 1,000 ppb (PFOA-related)

***Unless the flag state has implemented SC POPs regulation or equivalent into national law, then they must comply regardless of location

**** If it can be contained and collected otherwise the restriction is valid from 4th of August 2021.

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