

ENVIRONMENTAL PFAS

Protect Your Fleet and Comply with IMO Regulations



The International Maritime Organization (IMO) has banned perfluorooctane sulfonic acid (PFOS) in firefighting systems to protect crew members from exposure to hazardous substances and minimize environmental impact. Compliance with this regulation is mandatory for all ships constructed on or after January 1, 2026, and for existing ships by their first survey date after this deadline.

IMO's Decision and Its Impact

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Prohibition details

The IMO has officially prohibited the use of PFOS in firefighting systems aboard ships. This decision was made during the 98th session of the Sub-Committee on Ship Systems and Equipment (SSE) from February 28 to March 4, 2022, and was later adopted by the Maritime Safety Committee (MSC) in June 2023. Resolutions MSC.530(107) (amending SOLAS Chapter II-2), MSC.534(107), and MSC.535(107) (amending the HSC Codes of 1994 and 2000) enforce this ban, ensuring that firefighting foams containing PFOS are no longer used.

Health and Environmental Concerns

PFOS belongs to the broader group of perfluoroalkyl and polyfluoroalkyl substances (PFAS), which are toxic to both humans and the environment. Exposure to PFAS has been linked to liver dysfunction, immune and endocrine system disruptions, adverse neurobehavioral effects, and an increased risk of certain cancers.

Due to their persistence, PFAS accumulate in the environment and magnify through the food chain, posing significant risks to wildlife and human health.

Regulatory Compliance

The ban requires ships built on or after January 1, 2026, to comply with the new regulations for both fixed and portable firefighting systems. Existing ships must remove PFOS-containing firefighting foams and ensure their safe disposal ashore no later than their first survey date on or after January 1, 2026.

Global Initiatives

The PFOS ban is part of a larger global effort to restrict the use of PFAS. The European Chemicals Agency (ECHA) has proposed banning over 12,000 PFAS chemicals, reflecting widespread regulatory concern. Similarly, the U.S. has introduced legislation to phase out non-essential uses of PFAS within ten years, highlighting a commitment to reducing their environmental and health impacts.

Your Trusted Partner in PFAS Analysis

Expert Analysis

SGS is a global leader in PFAS analysis, providing precise and reliable testing services for various environmental matrices, including water, soil, air, and firefighting foams. Our expertise helps the maritime industry meet regulatory requirements while protecting human health and the environment.

Global Presence

With a presence in all major ports worldwide, SGS offers tailored services, fast turnaround times, and efficient project execution. Our experts are available globally to support your PFAS testing needs.

Comprehensive Solutions

While the IMO currently bans only PFOS, over 14,000 PFAS compounds exist. SGS provides both targeted and non-targeted screenings, Total Organic Fluorine (TOF, AOF, EOF) analysis, the Top Assay method, and Ultra Short Chain PFAS testing. We tailor our methodologies to meet your specific needs and local regulatory requirements, ensuring your firefighting foam is truly "PFAS Safe."

Innovative Methods

SGS has developed and validated advanced PFAS testing methods in collaboration with organizations such as the Firefighting Foam Coalition (FFFC), the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Defense (DoD). Our techniques provide high-quality data in line with best practices for PFAS measurement.

Why Choose SGS?

- **Trusted Expertise:** Globally recognized for quality and integrity in PFAS testing.
- **Customized Solutions:** Tailored testing services to meet your specific project needs.
- **Environmental Commitment:** Dedicated to promoting sustainability and environmental safety in the maritime industry.

Contact SGS today to ensure your fleet is compliant and environmentally responsible!

Industry Response and Future Outlook

PROTECT YOUR FLEET AND COMPLY WITH IMO REGULATIONS

The maritime industry is actively adapting to the PFOS ban by developing and implementing alternative firefighting foams. Companies are investing in research and development to ensure compliance while maintaining firefighting system effectiveness.

This regulation is expected to have significant environmental benefits, reducing waterway contamination and supporting broader efforts to protect biodiversity and promote sustainability in maritime operations.

Despite the ban, ongoing vigilance is essential to monitor and mitigate the long-term impacts of PFAS in the environment. Collaboration between regulatory bodies, industry stakeholders, and environmental organizations will be crucial in addressing the challenges posed by these persistent chemicals.

The IMO's PFOS ban is a vital step toward safeguarding human health and the environment. As the maritime industry transitions to compliance, continued efforts will be necessary to ensure regulatory adherence and the promotion of sustainable practices.

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