

Argus Technical Bulletin 202511-01 – Revision 02

Vinhedo, May 22, 2026.

"UPDATE ON IMO RESOLUTIONS REGARDING THE USE, STORAGE AND DISPOSAL OF FIRE-EXTINGUISHING AGENTS CONTAINING PERFLUOROOCTANE SULFONIC ACID (PFOS) AND INTERFACE WITH THE REACH REGULATION (EU)"

Dear customers and partners,

We hereby inform you that, in June 2023, the Maritime Safety Committee (MSC) of the International Maritime Organization (IMO) adopted the following resolutions:

- **Resolution MSC.532(107)** – *2023 Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS);*
- **Resolution MSC.536(107)** – *Amendments to the International Code of Safety for High-Speed Craft, 1994 (1994 HSC Code);*
- **Resolution MSC.537(107)** – *Amendments to the International Code of Safety for High-Speed Craft, 2000 (2000 HSC Code).*

These resolutions introduce specific restrictions on the use, storage and disposal of fire-extinguishing agents containing perfluorooctane sulfonic acid (PFOS), a substance recognized for its potential environmental impact.

1. Determinations – IMO Resolutions

In accordance with **Regulation II-2/10.11.2** of Resolution **MSC.532(107)** and with item **7.9.4** of **Resolutions MSC.536(107)** and **MSC.537(107)**, the following determinations are in force:

- The use or storage of firefighting foams containing PFOS shall be prohibited on ships constructed on or after January 1, 2026;
- Existing ships shall comply no later than the date of the first survey carried out after January 1, 2026;
- Prohibited substances shall be delivered to shore-based reception facilities for environmentally sound disposal.

2. Composition and Compliance of Argus Prime® Foam Concentrates (LGE)

Argus Produtos e Sistemas Contra Incêndio Ltda is exclusively dedicated to the manufacture of Foam Concentrates produced from high-purity fluorosurfactants based on C6 perfluoroalkyl chains, foam stabilizers and high-performance blends, optimized to meet the most demanding international firefighting standards, as well as the guidelines of the US EPA Voluntary PFOA Stewardship Program for the elimination of PFOA (2010/2015).

All **Argus Prime® Foam Concentrates** are synthesized from C6 perfluoroalkyl iodinated intermediates — known as fluorotelomer iodides — obtained through the telomerization process, one of the main industrial routes for the production of fluorochemicals. **Argus Prime® Foam Concentrates** are produced exclusively from products resulting from telomerization and show non-detectable levels of PFOS (Perfluorooctane Sulfonate).

In addition, PFHxS (Perfluorohexane Sulfonate) is not used as an intentional component in any formulation. Fluorosurfactants based on C6 fluorotelomers degrade in the environment into 6:2 Fluorotelomer Sulfonate (6:2 FTS), a compound whose non-bioaccumulation has already been demonstrated, in contrast to persistent substances such as PFOS and PFOA.

Argus Prime® Foam Concentrates are not derived from PFOA, nor do they contain it as an intentionally added ingredient. Furthermore, they do not degrade into PFOA in the environment and are in full compliance with Regulation (EU) 2019/1021.

Argus Prime® Foam Concentrates are based on telomers with a well-established technical track record in flammable liquid extinguishing operations, when properly applied in compatible firefighting foam formulations.

Argus Prime® Foam Concentrates have a production chain entirely free from the intentional presence of PFA, PFOS and PFHxS, and are fully compliant with ABNT NBR 15511, thus ensuring the performance, safety and quality required by the applicable Brazilian standards.

Declared technical characteristics:

- **PFOS:** non-detectable levels (< 10 parts per billion – ppb by weight);
- **PFHxS:** not used as an intentional component in any formulation;
- **PFOA:** in full compliance with Regulation (EU) 2019/1021 (max. limit of 25 ppb by weight);
- **Environmental degradation:** fluorosurfactants based on C6 fluorotelomers degrade into 6:2 Fluorotelomer Sulfonate (6:2 FTS) – non-bioaccumulative;
- **National compliance:** fully compliant with ABNT NBR 15511.

Note: The production chain of **Argus Prime® Foam Concentrates** is entirely free from the intentional presence of PFA, PFOS and PFHxS.

3. Interface with the REACH Regulation (EU)

3.1 Individually restricted substances

Substance	REACH limit	Status of Argus Prime® Foam Concentrates
PFOS	Prohibited	< 10 ppb – COMPLIANT
PFOA	≤ 25 ppb	≤ 25 ppb – COMPLIANT
PFHxS	Prohibited	Not used – COMPLIANT

3.2 Broad restriction on total PFAS (Entry 82)

C6 fluorosurfactants fall within the REACH definition of PFAS.

Applicable deadlines:

- Mandatory labeling: from October 23, 2026;
- General ban: from October 23, 2030 (PFAS ≥ 1 mg/L).

4. Compliance Summary

Requirement	Status
IMO Resolutions (PFOS)	Fully compliant
REACH – PFOS, PFOA, PFHxS	Fully compliant
ABNT NBR 15511	Fully compliant

We remain at your disposal for any additional technical clarifications.

Sincerely,

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