# Analytical Service for per- and polyfluoroalkyl substances (PFAS)

## TÜV Rheinland LGA Products - Information

September 2022

Per- and polyfluoroalkyl substances (PFAS) are increasingly a topic of discussion in the media and are thus attracting the attention of consumers.

PFAS are also referred to as "forever chemicals" because they are considered persistent, bioaccumulative and toxic (PBT) and can easily pass into and accumulate in air, dust, food, soil and water.

Restrictions for different classes of PFAS in articles and mixtures currently exist, for example in Europe under the REACH<sup>1</sup> or the POP<sup>2</sup> Regulation.

The U.S. Environmental Protection Agency (EPA) has proposed to document the use of PFAS and to establish a reporting system. In addition, several U.S. states have already enacted PFAS restriction laws for textiles and food packaging.

What makes PFAS partly indispensable are unique physical properties such as water and grease repellent, the ability to reduce friction and high thermal and chemical stability, which make them suitable for a wide range of different applications.

Because of these unique properties, PFAS are used in numerous products / processes, such as:

- Heat resistant non-stick coatings
- Food packaging
- Stain resistant textiles and carpets
- Cosmetics
- Surfactants in electroplating (chrome plating),
- Fire extinguishing foams
- Production of semiconductors or
- Photographic processes.

### WHY SHOULD YOU CARE?

Existing and upcoming restrictions on the use of PFAS like PFOA, PFOS or C9-C14 PFCA creating an additional burden for manufacturers, brands, retailers and suppliers.

With regards to existing EU and U.S. state laws, PFAS testing is recommended to exercise due diligence and actively ensure full compliance of products placed on the market and take appropriate measures to comply with all regulatory requirements.

In addition to those legal obligations, within the last years the commitment of brands and retailers to sustainability and environmental protection goals has been given more and more priority by the industry but also individual consumers; especially when eliminating and substituting "forever chemicals" like PFAS.

<sup>&</sup>lt;sup>2</sup> Regulation (EU) 2019/1021 on persistent organic pollutants (POP), Annex 1 part A



<sup>&</sup>lt;sup>1</sup> Regulation (EC) No 1907/2006 (REACH) Annex XVII, SVHC candidate list

#### WHAT WE CAN DO FOR YOU?

TUV Rheinland offers a wide range of analytical services to detect the intentional and unintentional use of PFAS in products and mixtures enabling manufacturer brands, retailers, and suppliers to comply with the existing and upcoming legal obligations under EU and U.S. laws.

Package 1	Covers existing restriction for the EU market (including ORRChem - Switzerland)
Package 2	Covers upcoming restriction in the EU market (PFHxA and C9-C14 PFCA)
Package 3	Overview target analysis by LC/MS and GC/MS for over 100 PFAS
Package 4	Total fluorine content (applicable U.S. state law requirement)

		Package 1	Package 2	Package 3	Package 4
	Legislation	180,- Euro	220,- Euro	300,- Euro	140,- Euro
PFOA and related compounds	POP Annex I Part A	•	•	•	
PFOS and its derivatives	POP Annex I Part A	•	•	•	
PFHxS and related compounds	ORRChem*	•	•	•	
C9-C14 PFCA and related compounds	REACH Annex XVII		•	•	
PFHxA and related compounds	REACH Proposal		•	•	
PFAS target analyte testing (> 100 PFAS)	Open scope			•	(°)***
Total Fluorine Content	U.S. State law**				•

\* Switzerland - Official Collection 2022 162 (RO 2022 162), PFHxS restriction applies as of October 1st, 2022

\*\* e.g. California AB 1817 or California AB 1200

\*\*\* Further testing suggested in case of total fluorine detection, not included in the package

#### OUR RECOMMENDATION

The analytical examination which products contain PFAS can be seen as the first and mandatory step in order to identify suitable substitutes, and to improve the affected products accordingly.

Besides the analytical testing, it is also suggested to monitor the supply chain with regard to the usage of chemicals. A review and further development can be carried out, for example, on the basis of production site audits on chemical and/or wastewater management (textile or electroplating industry), which are additional measures to eliminate PFAS from the production.

Companies who decide not react to the recent developments should at least prepare a process enabling them to respond in a timely manner to authorities or inquiries from NGOs.



Further information on current legal changes can also be found on our homepage at <u>www.tuv.com</u> or <u>https://www.tuv.com/regulations-and-standards/en/</u>.

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