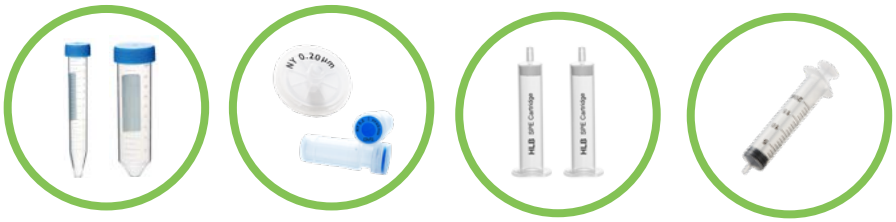
PFAS FREE
PRODUCT CATALOG



PFAS FREE VERIFIED

The GVS Group

In over 45 years of history, GVS has evolved from a supplier of components for the healthcare sector to a global group that produces highly technological diversified filtration solutions.

Wide range of products and custom design expertise

GVS produces a wide range of filter materials, filters and off-the-shelf components in all its divisions, enabling its customers to reduce the design time for new product launches.
All the GVS divisions work in highly regulated environments and the Group therefore operates with extremely high-quality standards. Thanks to its research and development centres located all over the world, GVS is also able to offer an extremely efficient and personalized service to meet its customers'needs: from product conception and design to testing and mass production.

Dynamic and flexible structure

GVS has developed a streamlined, dynamic and technologically advanced structure that has made it possible to achieve constant and balanced growth. The Group currently employs a total of 4869 people who work in automated assembly departments, in lines for the production and processing of filter membranes and in class 10,000 and 100,000 cleanrooms.

Global growth

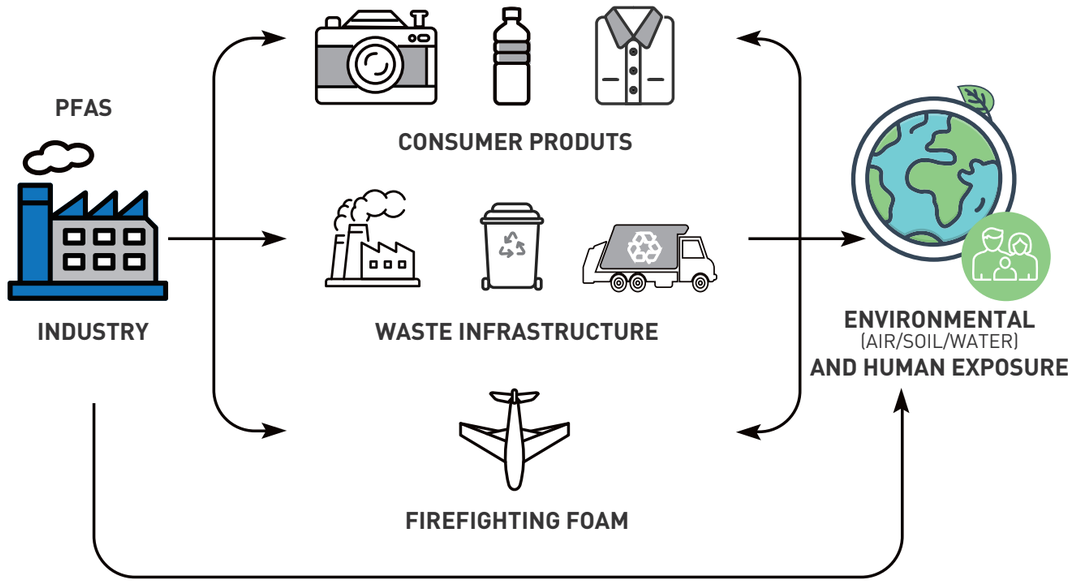
The GVS Group has always paid great attention to research, development and innovation of its products and processes and has shown a strong trend towards development in global markets since its foundation.
In addition to the corporate headquarters in Bologna, GVS currently has 19 plants in Italy, United Kingdom, Brazil, United States, China, Mexico, Romania e Puerto Rico, and 29 commercial offices located all over the world. GVS has always adopted a "glocal" approach: it operates locally in contact with its customers, but relies on the strength of a global network.

For more information, visit www.gvs.com

Index

Introduction

Dating to the 1940s, Per and polyfluoroalkyl substances (PFAS) consist of more than 4700 individual compounds employed across almost every domain of modern existence.



Common Uses of PFAS

- PFAS are commonly observed, persistent, and appear to be resistant to many treatment processes ("forever chemicals")
- Known for resistance to heat, water, grease, and stains
- Characterized by a chain of strong fluorine-carbon bonds
- Widely used across industrial and consumer products
- There are thousands of different PFAS

Why are we testing for PFAS Free?

Due to their usefulness, these compounds were quickly adopted and are now ubiquitous, found in food packaging, cookware, cosmetics, stain repellents, firefighting foams, and numerous manufacturing processes. Despite their immense utility, we have only recently begun to clearly grasp the health risks they pose.

The association of PFAS exposure with adverse human health and environmental outcomes necessitates accurate and precise quantification in various matrices. Numerous regulations and exposure advisories require detection at trace concentrations (low ng/L or ppt, extending to pg/L or ppq).

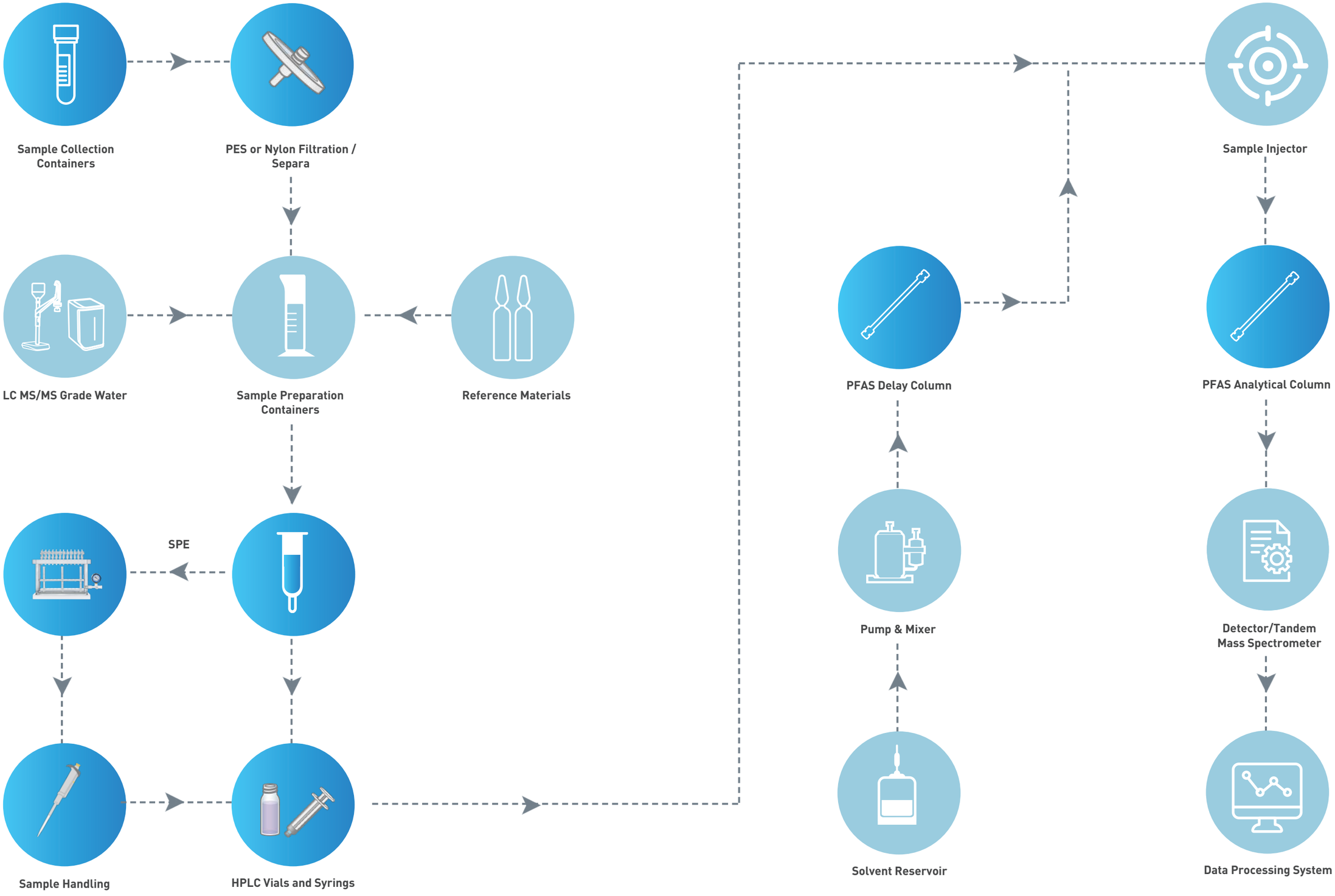
Reporting a result above a regulatory limit can carry significant repercussions for the sample's origin (e.g., industrial effluent, public water supply, landfill leachate, firefighting foam discharge), even where the objective is source mitigation. Consequently, confidence in the validity of reported data—ensuring it is both representative and uncontaminated—is imperative.

Dubbed "forever chemicals," PFAS resist natural degradation, accumulating persistently in ecosystems. This bioaccumulation drives contamination levels beyond safety thresholds, leading to chronic human exposure. Health consequences include developmental harm (e.g., low infant birth weights via placental transfer), immune suppression, carcinogenicity, and endocrine disruption through thyroid interference.

Recognizing this dual reality of utility and hazard, GVS is dedicated to equipping the scientific community. We provide essential, high-quality products and tools for the precise quantification of PFAS. Our solutions empower researchers, regulators, and testing labs in their critical work to understand and monitor PFAS exposure.

This brochure provides a comprehensive guideline of our products for PFAS analysis. These tools are applicable to environmental matrices (water, soil), food and beverage samples, and other areas. We are dedicated to enabling scientists to precisely quantify PFAS wherever they occur, thereby advancing our collective understanding of their societal consequences.

Product Across the Workflow



Key PFAS Regulatory Updates

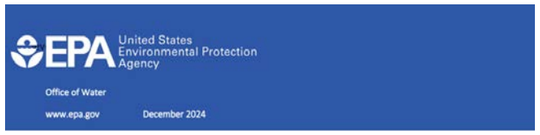
PFAS Update	US EPA HALs	EU 2022/1431	EU 2022/2388
Effective Date	15-Jun-22	2022-2025	1 Jan, 2023
Affected Matrices	Drinking water	Food/Feed	Certain foodstuff
Changes	New reporting limits and Health Advisory Limits for PFOA, PFOS, GenX, PFBS	Monitoring PFOS, PFOA, PFNA, PFHxS	PFOS, PFOA, PFNA, PFHxS, and sum of above
Impact to APAC	Possible future regulatory updates from region	Possible future regulatory updates from region	Export market for certain products of animal origin (eggs, fishery products, fish meat intended for the production of food for infants and young children and other fish meat, crustaceans, bivalve molluscs, meat and edible offal of bovine animals, sheep, pig and poultry and game animals.

PFAS Update	European Chemicals Agency (ECHA)	US EPA (Proposal for Drinking Water Regulation)
Effective Date	Proposal (public consultation on 22 Mar 2023 for 6 months)	Proposal (comment period on 29 Mar up till 30 May 2023)
Affected Matrices	All uses of PFAS	Drinking Water
Changes	To ban on both the use and production of PFAS in order to reduce the risks these substances pose to human and the environment, with a few exemptions and some temporary derogations	6 PFAS – Enforceable Max Contaminant Levels (MCLs) and non-enforceable MCL Goals (MCLGs) – Individual limits for PFOA, PFOS, and combination of PFNA, HFPO-DA (GenX), PFHxS, PFBS
Impact to APAC		Possible future regulatory updates from region

Methods for Measuring PFAS in the Environment

In January 2024, the EPA released three methods to better measure PFAS in the environment

- Final EPA Method 1633, a method to test for 40 PFAS in wastewater, surface water, groundwater, soil, biosolids, sediment, landfill leachate, and fish tissue.
- Final EPA Method 1621, which can broadly screen for the presence of chemical substances that contain carbon-fluorine bonds, including PFAS, in wastewater.
- Other Test Method (OTM)-50, which measures 30 volatile fluorinated compounds in air.



Method 1633, Revision A

Analysis of Per-and Polyfluoroalkyl Substances(PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS'

Guideline of PFAS

Determination of PFAS in Drinking Water

Analysis of PFAS is now an essential part of water testing programs and is becoming a regular requirement for monitoring in environment and food sources. As regulations continue to be created and updated, the requirements for method sensitivity have become essential. Solid phase extraction (SPE) is one tool that can be utilized to enhance sensitivity of a method by enriching the sample prior to injection. GVS utilizes mixed-mode weak anion exchange reversed-phase adsorbent (WAX) solid-phase extraction columns for enrichment and purification, and the UHPLC C18 liquid chromatography column for separation and detection.

Chromatographic column: C18 column (HCA018U021X050UAA, 2.1 * 50 mm, 1.8 μm)

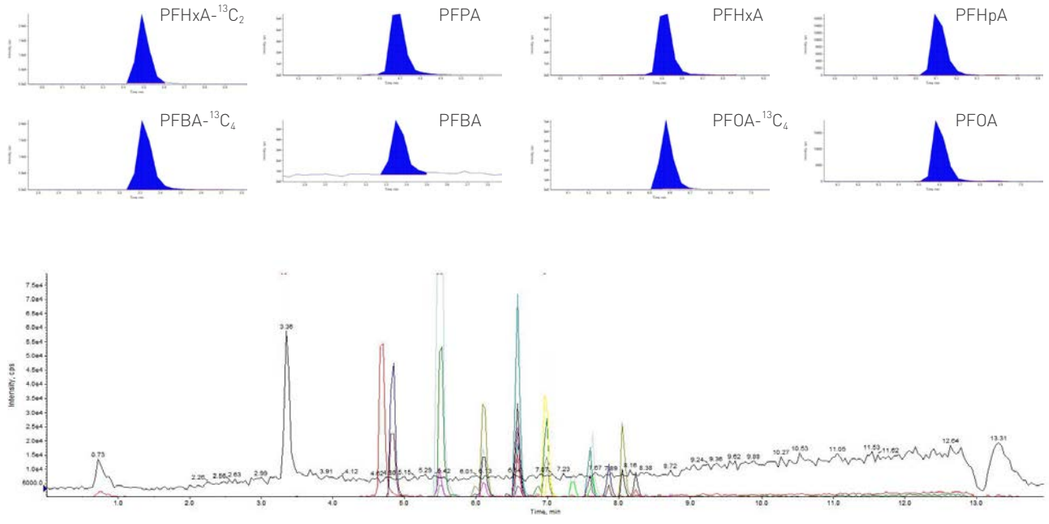
Mobile phase: A is methanol, B is a 5 mmol/L ammonium acetate

Flow rate: 0.3 mL/min.

Column temperature: 40°C.

Step 1 Pte-treatment ▶ **Step 2 Condition** ▶ **Step 3 Load** ▶ **Step 4 Wash** ▶ **Step 5 Elution**

- Pre-treatment: Add ammonium acetate; Adjust pH to 6.8-7
- Condition: 5 mL of 0.1% ammonium hydroxide in MeOH; 7 mL of MeOH; 10 mL of Water
- Load: Load sample into the SPE-WAX, flow rate 8 ml/min
- Wash: 5 mL of 0.025 mol/L ammonium acetate solution (pH=4); 12 mL of water; Dry cartridge for 15 minutes.
- Elution: 4 mL of MeOH; 6 mL of 0.1% ammonium hydroxide in MeOH



Chromatogram of the mixed standard solution (2 μg/L)

Analysis of Per- and polyfluoroalkyl substances (PFAS) in Fish

Per-and polyfluoroalkyl substances (PFAS) have been increasingly detected in complex food matrices such as fish, meat, and other animal-derived products. Given the dietary exposure risks — especially highlighted by EFSA's 2020 study — the development of improved analytical methods has become essential. As concerns about human exposure continue to grow, various countries are conducting studies on PFAS contamination in food. In this context, we have evaluated a quantitative analysis method for PFAS compounds in fish samples.

Step 1
Sample Preparation

- Weigh 2 g of sample
- Add 10 mL of 0.05M KOH in MeOH
- Shake gently for 16 hrs. and centrifuge, transfer to new tube/1
- Add 10 mL of ACN, sonicate 30 mins, centrifuge, transfer to new tube/1 (combine)

Step 2
Sample Preparation

- Add 10 mL of 0.05M KOH in MeOH, shake 5 mins, centrifuge, transfer to new tube/1 (combine)
- Add 1 mL of water
- Concentrate to 2.5 mL
- Reconstitute up to 50 mL with water
- Adjust pH to approx. pH6

Step 3
SPE Procedure

- Condition **WAX SPE** with 15mL 1%ammonium hydroxide in MeOH and 5 mL of 0.3 M formic acid
- Load sample
- Wash with 10 mL DI, 5 mL of 1:1 0.1M formic acid/methanol
- Place clean collection tubes inside the manifold

Step 4
SPE Procedure

- Rinse the sample bottle with 5 mL of 1% methanolic ammonium hydroxide transfer the rinse to the SPE reservoir and elute
- Add 25 µL of concentrated acetic acid
- Filter with 0.2-µm nylon.
- LC-MS/MS

Analysis of 28 PFAS Compounds in Soil

Per- and polyfluoroalkyl substances (PFAS) are man-made pollutants known for their persistence and ability to accumulate in the environment and living organisms. PFAS enter the environment through various sources, including food packaging and manufacturing processes, posing significant health risks due to their presence in water, soil, and biological systems. In this application note, a SPE method according to EPA Method 1633 using WAX SPE is presented. High recovery rates with very good reproducibility are achieved for drinking water matrices.

Step 1
Sample Preparation

- Weigh 5 g of sample
- Add 10 mL of 0.3% %ammonium hydroxide in MeOH
- Shake 30 mins and centrifuge, transfer to new tube/1
- Add 15 mL of 0.3% %ammonium hydroxide in MeOH
- Shake 30 mins and centrifuge, transfer to new tube/1

Step 2
Sample Preparation

- Add 5 mL of 0.3% %ammonium hydroxide in MeOH
- Shake 30 mins and centrifuge, transfer to new tube/1
- Concentrate to 7 mL
- Reconstitute up to 50 mL with water
- Adjust pH to approx. pH6

Step 3
SPE Procedure

- Condition **WAX SPE** with 15 mL 1%ammonium hydroxide in MeOH and 5 mL of 0.3 M formic acid
- Load sample
- Wash with 10 mL DI, 5 mL of 1:1 0.1M formic acid/methanol
- Place clean collection tubes inside the manifold

Step 4
SPE Procedure

- Rinse the sample bottle with 5 mL of 1% methanolic ammonium hydroxide transfer the rinse to the SPE reservoir and elute
- Add 25 µL of concentrated acetic acid
- Filter with 0.2-µm nylon.
- LC-MS/MS

PFAS Free Product

ABLUO® Syringe Filters

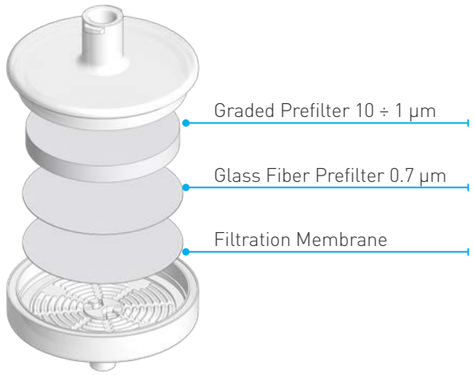
- Housing injected in Polypropylene or Acrylic
- Multifunctional Syringe Filters: equipped with luer-lock or luer-slip male connections for different applications
- Accurate labeling: each filter is labeled with the specific filter material and pore size for easy identification even if the syringe filter is not in its original Packaging
- Quick and efficient filtration of samples and all kind of solutions, solvents or gases
- Steril: No

Ordering information

Membrane Material	Membrane Diameter	Pore Size (µm)	End Fitting	Housing Material	Color	Packaging	Product Code
Cellulose Acetate (CA)	13mm	0.22	FLL/MLL	Acrylic	Blue	100/PK	FJ13ANCCA002DH01PF
Cellulose Acetate (CA)	13mm	0.45	FLL/MLL	Acrylic	Yellow	100/PK	FJ13ANCCA004FH01PF
Cellulose Acetate (CA)	13mm	0.8	FLL/MLL	Acrylic	Green	100/PK	FJ13ANCCA008EH01PF
Cellulose Acetate (CA)	13mm	1.2	FLL/MLL	Acrylic	Red	100/PK	FJ13ANCCA012CH01PF
Cellulose Acetate (CA)	13mm	5	FLL/MLL	Acrylic	Brown	100/PK	FJ13ANCCA050PH01PF
Cellulose Acetate (CA)	25mm	0.22	FLL/MLL	Acrylic	Blue	100/PK	FJ25ANCCA002DH01PF
Cellulose Acetate (CA)	25mm	0.45	FLL/MLL	Acrylic	Yellow	100/PK	FJ25ANCCA004FH01PF
Cellulose Acetate (CA)	25mm	0.8	FLL/MLL	Acrylic	Green	100/PK	FJ25ANCCA008EH01PF
Cellulose Acetate (CA)	25mm	1.2	FLL/MLL	Acrylic	Red	100/PK	FJ25ANCCA012CH01PF
Cellulose Acetate (CA)	25mm	5	FLL/MLL	Acrylic	Brown	100/PK	FJ25ANCCA050PH01PF
Nylon 66 (NY)	13mm	0.22	FLL/MLS	Polypropylene	Transparent	100/PK	FJ13BNPNY002AH01PF
Nylon 66 (NY)	13mm	0.45	FLL/MLS	Polypropylene	Transparent	100/PK	FJ13BNPNY004AH01PF
Nylon 66 (NY)	25mm	0.22	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPNY002AH01PF
Nylon 66 (NY)	25mm	0.45	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPNY004AH01PF
Regenerated Cellulose (RC)	13mm	0.22	FLL/MLS	Polypropylene	Transparent	100/PK	FJ13BNPRC002AH01PF
Regenerated Cellulose (RC)	13mm	0.45	FLL/MLS	Polypropylene	Transparent	100/PK	FJ13BNPRC004AH01PF
Regenerated Cellulose (RC)	25mm	0.22	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPRC002AH01PF
Regenerated Cellulose (RC)	25mm	0.45	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPRC004AH01PF
Polyethersulfone (PES)	13mm	0.22	FLL/MLS	Polypropylene	Transparent	100/PK	FJ13BNPPS002AH01PF
Polyethersulfone (PES)	13mm	0.45	FLL/MLS	Polypropylene	Transparent	100/PK	FJ13BNPPS004AH01PF
Polyethersulfone (PES)	25mm	0.22	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPPS002AH01PF
Polyethersulfone (PES)	25mm	0.45	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPPS004AH01PF
Glass Fiber (GF)	25mm	0.45	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPGN004AH01PF
Glass Fiber (GF)	25mm	0.7	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPGF007AH01PF
Glass Fiber (GF)	25mm	1	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPGF010AH01PF
Glass Fiber (GF)	25mm	1.2	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPGF012AH01PF
Glass Fiber (GF)	25mm	3.1	FLL/MLS	Polypropylene	Transparent	100/PK	FJ25BNPGF031AH01PF

PFAS Free Product

ABLUO® Supreme



Characteristics

Membrane Diameter: 25 mm
Effective Filtration Area: 4.63 cm²
Housing Diameter: 30 mm
Housing Materials: Clear Polypropylene
Maximum Operating Temperature: 90°C / 194°F
Maximum Operating Pressure: 75 psi
Shelf Life (normal conditions): 3 years

Ordering information

Membrane	Pore Size(µm)	Description	Packaging	Product Code
RC	0.2	FLL/MLS - PP GF/F/RC 0.7/0.22µm CLR	10/PK	GF25BNPGR002AT01PF
RC	0.45	FLL/MLS - PP GF/F/RC 0.7/0.45µm CLR	10/PK	GF25BNPGR004AT01PF
PES	0.2	FLL/MLS - PP GF/F/PES 0.7/0.22µm CLR	10/PK	GF25BNPGS002AT01PF
PES	0.45	FLL/MLS - PP GF/F/PES 0.7/0.45µm CLR	10/PK	GF25BNPGS004AT01PF
NY	0.2	FLL/MLS - PP GF/F/NY 0.7/0.22µm CLR	10/PK	GF25BNPGN002AT01PF
NY	0.45	FLL/MLS - PP GF/F/NY 0.7/0.45µm CLR	10/PK	GF25BNPGN004AT01PF
CA	0.2	FLL/MLS - PP GF/F/CA 0.7/0.22µm CLR	10/PK	GF25BNPGA002AT01PF
CA	0.45	FLL/MLS - PP GF/F/CA 0.7/0.45µm CLR	10/PK	GF25BNPGA004AT01PF

SEPARA® Syringeless Filters

- 2 simple steps for sample preparation
- Designed and compatible for use with all HPLC or UHPLC autosampler
- Syringeless filter vials integrates syringe, filtration membrane, auto sampler vial and cap/septa

Ordering information

Membrane Material	Pore Size (µm)	Color	Packaging	Product Code
Regenerated Cellulose (RC)	0.20	Gray	100/PK	MV32ANPRC002GC01PF
Regenerated Cellulose (RC)	0.45	Black	100/PK	MV32ANPRC004LC01PF
Nylon (NY)	0.20	Light Blue	100/PK	MV32ANPNY002BC01PF
Nylon (NY)	0.45	Blue	100/PK	MV32ANPNY004UC01PF
Polyethersulfone (PES)	0.20	Light Green	100/PK	MV32ANPPS002EC01PF
Polyethersulfone (PES)	0.45	Dark Green	100/PK	MV32ANPPS004WC01PF

Laboratory Syringes
Precision and Control for Accurate Lab Work

Features

- High transparent PP material for tube and plunger. Designed for easy operation and smooth plunger movement, ensuring accurate fluid transfer with minimal force.
- Manufactured with high-quality materials that resist chemical degradation, making them compatible with various solutions.
- Available with luer lock or luer slip fittings to ensure secure connections, preventing leaks during liquid handling.

Parts: Barrel+Piston+Plunger; Latex-free, PVC-free
High transparent PP material for tube and plunger

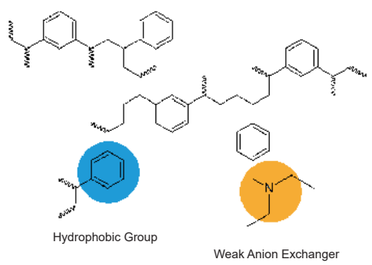
Ordering information

Product Code	Description	Packaging
SYRITG001LBP050BPF	Disposal Plastic Syringe, 1ml,Luer lock, No Sterile, Bulk Pack	200pcs/inner box, 16 box/case
SYRITG001SBP050BPF	Disposal Plastic Syringe, 1ml,Luer slip, No Sterile,Bulk Pack	200pcs/inner box, 16 box/case
SYRITG005LBP050BPF	Disposal Plastic Syringe, 5ml,Luer lock, No Sterile,Bulk Pack	100pcs/inner box, 24 box/case
SYRITG005SBP050BPF	Disposal Plastic Syringe, 5ml,Luer slip, No Sterile,Bulk Pack	100pcs/inner box, 24 box/case

SPE Cartridge

WAX for PFAS - WAX SPE is a powerful and versatile solution designed for the selective extraction of acidic compounds like PFAS from environmental samples. With its dual retention mechanism (ion exchange + hydrophobic interaction), WAX SPE delivers superior sample cleanup and analyte concentration—perfectly suited for LC-MS/MS analysis.

- High recovery and precision for both short- and long- chain PFAS
- Reduces background noise, enhancing detection sensitivity
- Compliant with EPA Methods 533, 537.1, and 1633
- Streamlined workflow for reliable results in every matrix



Ordering information

Product Code	Description	Method	Packaging
SPEB00WAX06150APF	150mg/6mL	1633,ISO 21675:2019	30 Pcs/Box
SPEB00WAX06200APF	200mg/6mL	533	30 Pcs/Box
SPEB00WAX06500APF	500mg/6mL	533	30 Pcs/Box

PFAS Free Product

Centrifuge Tube

95 kpa

- Consistent biological and physical properties, High transparent, medical grade PP material with flat caps for marking.
- RCF rating up to 12,000 xg.
- Easy-to-read printed graduations and a large white frosted area for labelling.
- Leak-proof.
- Packed in convenient durable racks or reusable Zip-lock bags.

15 ml DIM. 17x120 mm, Printed graduation range from 1.5 to15 ml, interval at 0.5 ml

Product Code	Sterile	Packaging
CELCUCG4610X1923NSPF	Non sterile	50 pcs/zip-lock bag, 500 pcs/carton

50 ml DIM. 30x115 mm, Printed graduation range from 5 to 47.5 ml, interval at 2.5 ml

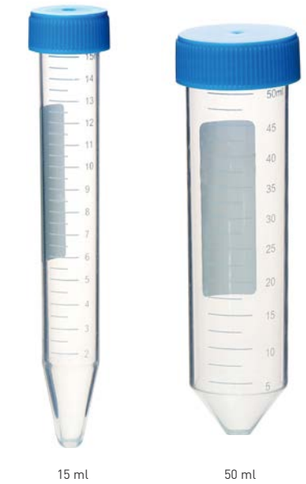
Product Code	Sterile	Packaging
CELCUCG4610X1942NSPF	Non sterile	25 pcs/zip-lock bag, 500 pcs/carton

50 ml Self-standing, DIM. 30x117 mm, Printed graduation range from 5 to 47.5 ml, interval at 2.5 ml

Product Code	Sterile	Packaging
CELCUCG4610X1982NSPF	Non sterile	25pcs/zip-lock bag,500pcs/carton

50 ml Self-standing, DIM. 30x107 mm, blue cap, Printed graduation range from 5 to 50 ml, interval at 5 ml

Product Code	Sterile	Packaging
CELCUCG4610X1897NS8PF	Non sterile	25 pcs/zip-lock bag, 500 pcs/carton



50 ml conical self standing

50 ml self standing

Plastic Pasteur Pipette

Ideal for transferring and dispensing small amounts of liquid safely and rapidly. LDPE material, excellent transparency.

With Graduation

Product Code	Length(mm)	Graduation	Overall Vol(ml)	Sterile	Packaging
PLAC4320X0111APF	145	1/4mL up 1 mL	5	Non Sterile	Individual peel-pack, 50x100pcs/ dispenser box /carton

Universal Pipette Tips

Universal pipette tips are made with high precision molds. With excellent processing technology and good pipetting performance.

Features

- Made of high quality PP(polypropylene)
- DNase/RNase free, Pyrogen free
- High quality filter, tight sealing, cross infection prevention
- Excellent toughness, not easy to deform, good verticality and air tightness

Ordering information

Sort	Name	Product Code	Packaging
10μl	10μl universal pipette tip	PLAPG10RSAPF	96pcs/rack, 50racks/case
		PLAPG10BAPF	1000pcs/bag, 40bags/case
200μl	200μl universal pipette tip	PLAPG200RSAPF	96pcs/rack, 50racks/case
		PLAPG200BAPF	1000pcs/bag, 40bags/case
1000μl	1000μl Blue universal pipette tip	PLAPG1000RSAPF	96pcs/rack, 50racks/case
		PLAPG1000BAPF	1000pcs/bag, 40bags/case
5ml	5ml universal pipette tip(EP)	PLAPGPT5000RESAPF	24pcs/rack, 30racks/case
		PLAPGPT5000BEAPF	100pcs/bag, 20bags/case

Package Bottle

GVS package bottles are made of high-quality polypropylene PP/high-density polyethylene HDPE raw materials, consistent wall thickness and smooth interior and exterior surfaces, non-biotoxin, produced in a 100,000-class clean room production environment, multiple quality system certifications. These bottles are ideal for both field sampling, general lab use, and are easily transportable.

Features

Durable, uniform wall thickness

One-time blow molding, no seams, advanced molding technology ensures the bottle has a more uniform wall thickness, high-quality bottle wall to ensure that the bottle wall can effectively prevent breakage or puncture the bottom, the bottle bottom is flat, which is beneficial to the Filling line runs smoothly.

Leakproof design

The mouth of the bottle cap is designed to prevent leakage. Repeated opening and tightening will not affect the sealing performance of the bottle.

Ordering information

Product Code	Description	Material	Color	Package
SBPGWMCH0008PF	Wide mouth, 8ml packaging bottle	HDPE	Natural	2000
SBPGWMCH0015PF	Wide mouth, 15ml packaging bottle	HDPE	Natural	1500
SBPGWMCH0030PF	Wide mouth, 30ml packaging bottle	HDPE	Natural	800
SBPGWMCH0060PF	Wide mouth, 60ml packaging bottle	HDPE	Natural	800
SBPGWMCH0125PF	Wide mouth, 125ml packaging bottle	HDPE	Natural	500
SBPGWMCH0250PF	Wide mouth, 250ml packaging bottle	HDPE	Natural	250
SBPGWMCH0500PF	Wide mouth, 500ml packaging bottle	HDPE	Natural	125
SBPGWMCH1000PF	Wide mouth, 1000ml packaging bottle	HDPE	Natural	50
SBPGNMCH0030PF	Narrow mouth, 30ml packaging bottle	HDPE	Natural	800
SBPGNMCH0060PF	Narrow mouth, 60ml packaging bottle	HDPE	Natural	800
SBPGNMCH0125PF	Narrow mouth, 125ml packaging bottle	HDPE	Natural	500
SBPGNMCH0250PF	Narrow mouth, 250ml packaging bottle	HDPE	Natural	250
SBPGNMCH0500PF	Narrow mouth, 500ml packaging bottle	HDPE	Natural	125
SBPGNMCH1000PF	Narrow mouth, 1000ml packaging bottle	HDPE	Natural	50

Trouble Shooting Tips and Tools

1.Contamination Issues

Problem

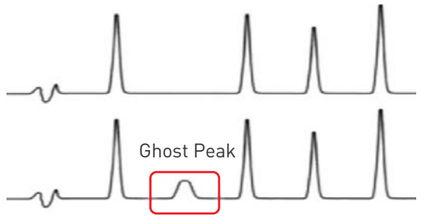
Elevated background levels of PFAS

Tips

- Use PFAS-free verified consumables (vials, caps, filters, SPE, solvents).
- Avoid PTFE-based materials (tubing, caps, liners).
- Pre-rinse all glassware and plasticware with methanol or acetonitrile.

Tools

- PFAS-free sample kits
- Blank extraction controls (method, reagent, and system blanks)



2.Poor Recovery or Low Sensitivity

Problem

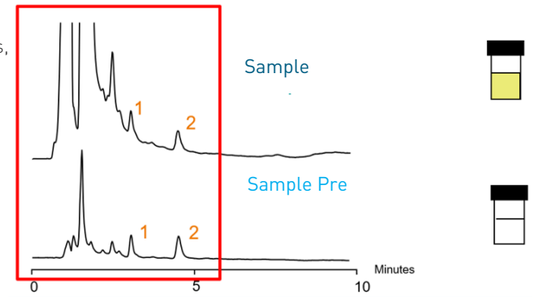
Loss of target PFAS compounds during sample prep

Tips

- Optimize SPE procedure (pH adjustment, washing steps, elution strength).
- Monitor drying time on SPE to prevent breakthrough.
- Use isotopically labeled internal standards.

Tools

- Weak Anion Exchange (WAX) SPE cartridges
- Internal standard mix
- LC-MS/MS optimization guide



3.Retention Time Shifts

Problem

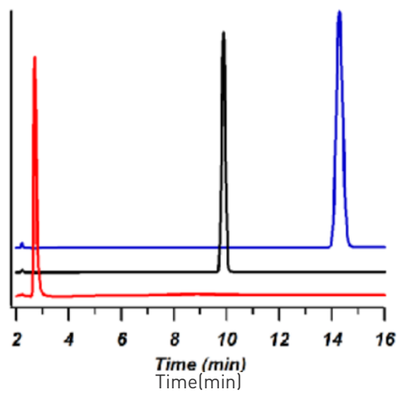
Problem: Inconsistent chromatographic separation

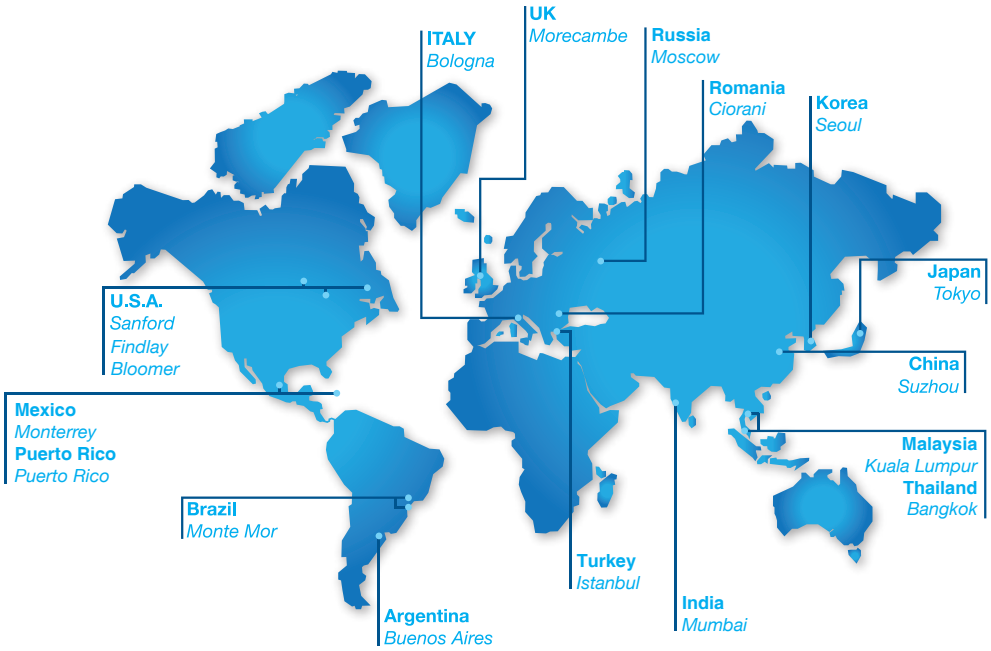
Tips

- Ensure column equilibration and stable flow rate.
- Check mobile phase pH and composition.
- Use delay column to separate background contamination.

Tools

- High-quality PFAS analytical columns
- Guard column and delay column (to trap system PFAS)





WORLDWIDE

EUROPE

Italy Office
Headquarters
GVS S.p.A.
Via Roma 50
40069 Zola Predosa (BO) - Italy
Tel. +39 051 6176311
gvs@gvs.com

Russia
GVS Russia LLC.
Profsoyuznaya Street, 25-A, office 102
117418, Moscow
Russian Federation (Russia)
Tel. +7 495 0045077
gvsrussia@gvs.com

United Kingdom
GVS Filter Technology UK Ltd.
Caton Road, Lancaster, Lancashire,
LA1 3PE, UK.
Tel. +44 (0) 1524 847600
gvsuk@gvs.com

Romania
GVS Microfiltrazione srl
Sat Ciorani de Sus 1E - Comuna Ciorani
Prahova România
Tel. (+40) 244 463044
gvsro@gvs.com

Turkey
GVS Türkiye
Nidakule Merdivenköy Mahallesi
Bora Sokak No:1 Kat:7 - 34732 Istanbul
Tel. +90 216 504 47 67
gvsturkey@gvs.com

ASIA

China
GVS Technology (Suzhou) Co., Ltd.
No.8 Taishan Road,215129
Suzhou New District, Suzhou, Jiangsu, China
Tel. +86 512 6661 9880
lifesciences.cn@gvs.com

GVS Shanghai Transfusion Technology Co., Ltd.
No.500 Youdong Rd
40069 Shanghai, China
Tel. +86 21 3415 3961

Japan
GVS Japan K.K.
KKD Building 4F, 7-10-12 Nishishinjuku
Shinjuku-ku, Tokyo 160-0023 Japan
Tel. +81 3 5937 1447
gvsjapan@gvs.com

Korea
GVS Korea Ltd
#315 Bricks Tower
368 Gyungchun-ro(Gaun-dong),
Namyangju-si, Gyunggi-do,
Tel: +82 31 563 9873
gvskorea@gvs.com

India
GVS Filter India Pvt Ltd
Unit No 35 & 36 on First Floor
Ratna Jyot Industrial Premises Irla Lane,
Irla Vile Parle, Mumbai 400056, India
gvsindia@gvs.com

Malaysia
GVS Filtration Sdn.Bhd
Lot No 10F-2B, 10th Floor, Tower 5 @ PFCC
Jalan Puteri 1/2, Bandar Puteri
47100 Puchong, Selangor, Malaysia
Tel: +60 3 7800 0062
gvsmalaysia@gvs.com

Thailand
GVS Thailand
88 Ratchadaphisek Rd,
Office 10E03 - Khlong Toei,
Bangkok 10110
gvsthailand@gvs.com

AMERICA

U.S.A.
GVS North America
63 Community Drive
Sanford, ME 04073 - USA
Tel. +1 866 7361250
gvsusa@gvs.com

GVS Filtration Inc.
2150 Industrial Drive
Findlay, OH. 45840 - USA
Tel. +1.419.423.9040
gvsfiltration@gvs.com

2200 W 20th Avenue
Bloomer, WI 54724 - USA
Tel. +1.715.568.5944
gvsfiltration@gvs.com

Puerto Rico
GVS Puerto Rico, LLC
98 Carr 194 - Fajardo,
Puerto Rico, 00738-2988, USA
Tel. +1.787.355.4100
gvspuertorico@gvs.com

México
GVS Filter Technology de Mexico
Universal No. 550, Vynmsa Aeropuerto Apodaca
Industrial Park, Ciudad Apodaca, Nuevo León, C.P.
66626 - México
Tel. +52 81 2282 9003
gvsmex@gvs.com

Argentina
GVS Argentina S.A.
Avenida Rivadavia 13.332
1704 Ramos Mejía,
Buenos Aires - Argentina
Tel. + 5411 48614750
lifesciences.ar@gvs.com

Brazil
GVS do Brasil Ltda.
Rodovia Conego Cyriaco Scaranello Pires 251
Jardim Chapadão, CEP 13193-580
Monte Mor (SP) - Brasil
Tel. +55 19 38797200
gvs@gvs.com.br

PRODUCT COLLECTION - PFAS Free Catalog

Printing History: Version 15082025