



Per- and Polyfluoroalkylated Substances (PFAS) Reference Materials

2024

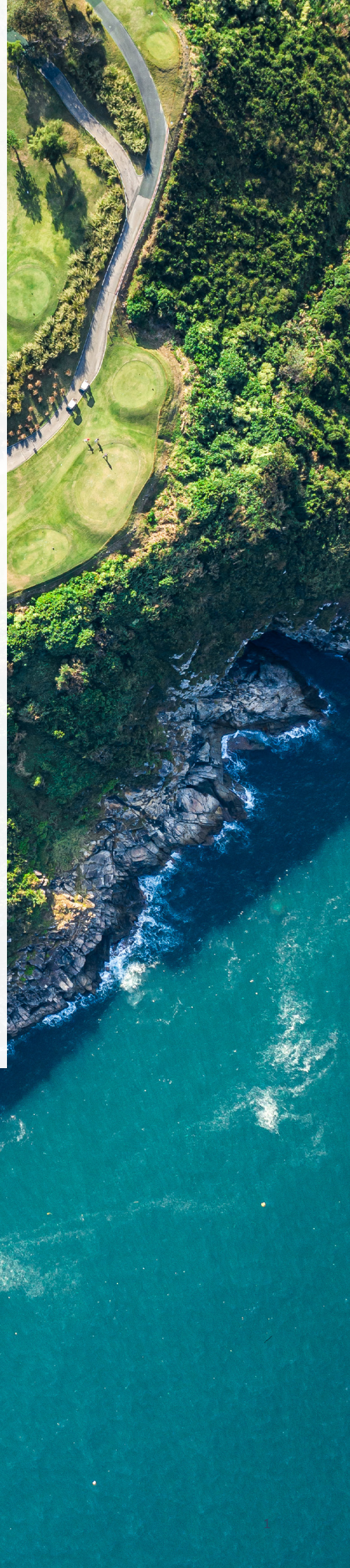
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PFAS Reference
Materials



PFAS

What you need to know

Per- and polyfluoroalkylated substances (PFAS) have garnered much attention in recent years as legislators around the world have begun to ban or limit their use.

The impact in Europe

Several PFAS compounds have come under the scrutiny of the Stockholm Convention on Persistent Organic Pollutants (POPs) including PFOA, PFOS, PFOSF, PFHxS, associated salts and other related compounds.

Towards the end of 2020, food regulators in the European Union set a limit for combined exposure to PFOA, PFOS and two other PFAS compounds in food – perfluorononanoic Acid (PFNA), perfluorohexane sulphononic Acid (PFHxS).

More regulation followed to regulate the presence of PFAS in drinking water and groundwater within the European Water Framework Directive to safeguard consumer and environmental health.

And most recently, authorities in Denmark, Germany, Netherlands, Norway and Sweden are calling for further restriction or banning of PFAS compounds under REACH.

The impact in America

The U.S. Senate's PFAS Release Disclosure and Protection Act of 2019 requires the regulation of PFAS in relation to safe drinking water and management of toxic chemicals. The bill also required 172 specified PFAS to be immediately included in the Toxics Release Inventory (TRI) of the Environmental Protection Agency (EPA).

In 2020, the EPA outlined its strategic roadmap including timelines and key actions, to safeguard public health and the environment, and hold polluters accountable.





History & environmental impact

PFAS have been in use in manufacturing since the 1950s, for cookware coatings, food packaging, firefighting foam, textiles, clothing and other household goods. Unfortunately, the same properties which make PFAS so useable – hardness, oil and water resistance – also make these compounds incredibly environmentally persistent, lending them the nickname ‘forever chemicals’. This tenacity is largely down to the carbon and fluorine bonds that make up PFAS molecules, meaning that soil, air, and water contamination may be widespread. One report by the Centre for Disease Control (CDC) detected PFOS, PFOA, PFNA, and PFHxS in the blood of more than 95% of the U.S. population over 12 years old.

A growing global legal issue

The legal ramifications of the emerging PFAS problem are significant. To date, over 5000 PFAS-contaminated sites have been identified in the United States, and legal actions have been successfully brought against multiple manufacturers. Meanwhile, despite the Australian government’s claim that there is “limited to no evidence” linking PFAS to human disease, one law firm still reached an in-principle agreement with the Australian Department of Defence. They secured a reported \$212.5 million AUD for three communities affected by PFAS contamination linked to PFAS compounds on army bases, fire stations and industrial sites from the 1970s to the 2000s.

Countless compounds, endless research

There are thousands of different types of PFAS compounds, all varying in the threat they pose to human, animal and environmental health. So the research and monitoring that’s needed to set standards on a case-by-case basis is lengthy and highly resource-intensive. To date, a core group of more widely used compounds has dominated research and become regulated by bodies such as the EPA and European Union. For those that the industry is still gaining intelligence on, there are simply guidance measures in place.

References:

- 1 - <https://echa.europa.eu/hot-topics/perfluoroalkyl-chemicals-pfas>
- 2 - <https://chm.pops.int/TheConvention/ThePOPs/TheNewPOPs/tabid/2511/Default.aspx>
- 3 - <https://echa.europa.eu/-/next-steps-for-pfas-restriction-proposal>
- 4 - <https://www.epa.gov/newsreleases/epa-requires-toxics-releaseinventory-reporting-seven-additional-pfas>
- 5 - <https://www.epa.gov/pfas/press-releases-related-pfas>
- 6 - <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>
- 7 - https://www.ewg.org/interactive-maps/pfas_contamination/

Our PFAS portfolio

Over the following pages, we’ll introduce you a selection of our PFAS-related products, including both neat and single solutions. Our EPA method tailored solutions improve the efficiency of your laboratory, while our stable Isotopically Labelled products (SIL) give you a range of options for your testing needs. You’ll also see our latest PFAS mixtures which support the EU Drinking Water Directive, UCMR5 and EPA Method 1633.

To see our complete range of reference materials, visit lgcstandards.com

PFAS reference materials

Product Listings

LGC brings you a comprehensive range of reference materials for PFAS testing through our Dr. Ehrenstorfer portfolio, and matrix materials through our preferred partners The National Institute of Standards and Technology (NIST) and Joint Research Centre (JRC).

Ehrenstorfer Quality

At Dr. Ehrenstorfer we place an emphasis on quality as part of our commitment to providing you with products you can trust. Here is what 'Ehrenstorfer Quality' means to us:

Producing to the highest standard

Dr. Ehrenstorfer reference materials are produced to the highest quality, with all analytical measurements performed under our ISO/IEC 17025 scope of accreditation and a leading portfolio of products produced according to our ISO 17034 accreditation. We use the most advanced analytical techniques to characterise our reference materials so that you can rely on the scientific integrity of the data contained in your Certificate of Analysis.

Ensuring confidence from characterisation to implementation

We use real-time stability testing and expiry date management to give you confidence in your Dr. Ehrenstorfer reference materials and ensure you receive your products as certified, ready for your analysis. Our careful packaging choices protect your product during delivery and storage, and are made with your convenience and safety in mind.

Offering a unique and extensive portfolio

We produce an unrivalled portfolio of reference materials for food and environmental analysis, including unique substances, stable isotope labelled compounds and metabolites. Dr. Ehrenstorfer continues to be a global leader in pesticides and our range also features pharmaceutical and veterinary compounds, food related compounds, dyes, food packaging contaminants and more. We offer multiple formats including neat, single and multicomponent solutions.

Understanding your analytical needs

Through direct interactions with our customers and our expertise in the latest scientific and regulatory developments, we are able to quickly adapt our portfolio of reference materials to address your needs. We are committed to providing you with trusted solutions, today and tomorrow.

Providing expert support

At Dr. Ehrenstorfer we combine experience with continuous training to ensure that the latest knowledge and skills are being applied to producing your reference materials. As part of the LGC family, we are proud to connect with our customers across a global network, with dedicated local teams able to support your reference materials decisions and the implementation of our products in your analytical testing.

Our heritage, our vision, your guarantee

Dr. Ehrenstorfer is built upon more than 40 years of history in planning, developing, producing, analysing, packaging and delivering high quality reference materials to our customers around the world with speed and reliability. We are passionate about our work which supports you in your science for a safer world.

PFAS reference materials

Product Listings



Since 1975, Dr. Ehrenstorfer™ has led the way in producing pesticide reference standards. Today, our portfolio has expanded to adapt to changing regulations and technology.

- Over 200 PFAS reference materials
- 40% of PFAS products produced to our ISO 17034 accreditation
- Popular tailor-made mixtures for EPA and other regulatory methods
- Centres of excellence in Germany and United States
- As part of the LGC family, we're proud to connect with our customers across a global network, with dedicated local teams ready to support your needs



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Introducing our latest PFAS mixtures to support the EU Drinking Water Directive, UCMR 5 and EPA Method 1633.

Improve efficiency.

Specifically designed to meet testing requirements, our UCMR 5 mixture has 29 analytes, our EU Drinking Water Directive mixture has 20 analytes and our EPA Method 1633 mixture has 40 analytes.

- No need to conduct stability studies or develop your own mixtures
- Reduce your calibration runs and save preparation time

Free up resources.

A higher concentration to give you clear signal intensity, even with the most difficult sample matrixes:

- Increase your efficiency with higher sample throughput
- Save time compared to preparing your solutions in-house

Have confidence in your results.

A robust ISO 17034 mixture designed by our team of expert chemists.

- Decrease your likelihood of downtime
- Reduce issues
- Avoid error-prone preparations



Order now DRE- A50000753MW,
DRE-A50000754MW, DRE-A30000051MW
or contact us for more information.



To learn more, visit
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Polyfluorinated Phosphate Esters

Per- and Polyfluoroalkyl Ether Carboxylic Acids

Other PFAS

Matrix Materials

Mixtures

Part Number	Part Description	No. of analytes
DRE-A50000753MW	EPA Method 1633 mixture 10 µg/mL in Methanol:Water	40
DRE-A50000751MW	EPA Method 533 PFAS Mixture 10 µg/mL in Methanol:Water	22
DRE-A50000152MW	EPA Method 537.1 PFAS Mixture 152 100 µg/mL in Methanol:Water	18
DRE-A50000752MW	EPA Method 8327 PFAS Mixture 10 µg/mL in Methanol:Water	22
DRE-A50000754MW	UCMR5 PFAS Mixture 10 µg/mL in Methanol:Water	29
DRE-A50000738MW	Massachusetts PFAS Mixture 2 µg/mL in Methanol:Water	6
DRE-A30000051MW	EU Drinking Water Directive PFAS Mixture 10 µg/mL in Methanol:Water	20
DRE-A50000151MW	PFAS Mixture 151 100 µg/mL in Methanol:Water	24
DRE-A50000647MW	PFASiMix 100 µg/mL in Methanol:Water (96:4)	27
DRE-GS09000218MW	PFAA Mixture 218 100 µg/mL in Methanol:Water 96%:4%	11

Product Code	Product Description	Pack size	Analytes		
DRE-A50000753MW	EPA Method 1633 mixture 10 µg/mL in Methanol:Water	1ml	40 analytes		
Analytes		Abbreviation	CAS No.	Carbon Chain Length	
Perfluoro(2-ethoxyethane) sulfonic acid		PFEESA	113507-82-7	4	
Perfluorobutanoic acid		PFBA	375-22-4	4	
Perfluorobutanesulfonic acid		PFBS	375-73-5	4	
Perfluoro-3-methoxypropanoic acid (PFMOPrA)		PFMPA	377-73-1	4	
Perfluoro-3,6-dioxaheptanoic acid		NFDHA	151772-58-6	5	
Perfluoropentanoic acid		PFPeA	2706-90-3	5	
Perfluoropentanesulfonic acid		PFPeS	2706-91-4	5	
Perfluoro-4-methoxybutanoic acid (PFMOBA)		PFMBA	863090-89-5	5	
Perfluoro-2-propoxypropanoic acid (PFPrOPrA)		HFPO-DA	13252-13-6	6	
Perfluorohexanoic acid		PFHxA	307-24-4	6	
Perfluorohexanesulfonic acid		PFHxS	355-46-4	6	
2H,2H,3H,3H-Perfluorohexanoic acid		3:3 FTCA	356-02-5	6	
1H,1H,2H,2H-Perfluorohexanesulfonic acid		4:2 FTS	757124-72-4	6	
Perfluoroheptanoic acid		PFHpA	375-85-9	7	
Perfluoroheptanesulfonic acid		PFHpS	375-92-8	7	
3H-Perfluoro-4,8-dioxanonanoic acid		DONA	919005-14-4	7	
N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide		N-EtFOSE	1691-99-2	8	
Perfluorooctane sulfonic acid		PFOS	1763-23-1	8	
2-(N-Methylperfluorooctanesulfonamido)acetic acid		N-MeFOSAA	2355-31-9	8	
N-(2-Hydroxyethyl)-N-methylperfluorooctanesulfonamide		N-MeFOSE	24448-09-7	8	
1H,1H,2H,2H-Perfluorooctane sulfonic acid		6:2 FTS	27619-97-2	8	
2-(N-Ethylperfluorooctanesulfonamido)acetic acid		N-EtFOSAA	2991-50-6	8	
N-Methylperfluorooctanesulfonamide		MeFOSA	31506-32-8	8	
Perfluorooctanoic acid		PFOA	335-67-1	8	
N-Ethylperfluorooctanesulfonamide		EtFOSA	4151-50-2	8	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid potassium		9CI-PF3ONS	73606-19-6	8	

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PFAS reference materials

Product Listings

Mixtures. Continued from previous page

Analytes	Abbreviation	CAS No.	Carbon Chain Length
Perfluorooctane sulfonamide	PFOSA	754-91-6	8
2H,2H,3H,3H-Perfluorooctanoic acid	5:3 FTCA	914637-49-3	8
Perfluorononanoic acid	PFNA	375-95-1	9
Perfluorononanesulfonic acid sodium	PFNS	98789-57-2	9
Perfluorodecanoic acid	PFDA	335-76-2	10
Perfluorodecanesulfonic acid	PFDS	335-77-3	10
1H,1H,2H,2H-Perfluorodecanesulfonic acid	8:2 FTS	39108-34-4	10
1H,1H,2H,2H-Perfluorodecanoic acid	7:3 FTCA	812-70-4	10
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid potassium	11Cl-PF3OUdS	83329-89-9	10
Perfluoroundecanoic acid	PFUnA	2058-94-8	11
Perfluorododecanesulfonic acid sodium	PFDoDS	1260224-54-1	12
Perfluorododecanoic acid	PFDoA	307-55-1	12
Perfluorotridecanoic acid	PFTriDA	72629-94-8	13
Perfluorotetradecanoic acid	PFTeDA	376-06-7	14

Product Code	Product Description	Pack size	Analytes		
DRE-A50000751MW	EPA Method 533 PFAS Mixture 10 µg/mL in Methanol:Water	1ml	25 analytes		
Analytes	Abbreviation	CAS No.	Carbon Chain Length		
Perfluorobutanesulfonic Acid	PFBS	375-73-5	4		
Perfluoro-3-methoxypropanoic Acid	PFMPA	377-73-1	4		
Perfluoro(2-ethoxyethane) Sulfonic Acid	PFEESA	113507-82-7	4		
Perfluorobutanoic Acid	PFBA	375-22-4	4		
Perfluoropentanoic Acid	PFPeA	2706-90-3	5		
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4	5		
Perfluoro-4-methoxybutanoic Acid	PFMBA	863090-89-5	5		
Perfluoro-3,6-dioxahexanoic Acid	NFDHA	151772-58-6	5		
Perfluorohexanesulfonic Acid	PFHxS	355-46-4	6		
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2 FTS	757124-72-4	6		
Perfluoro-2-propoxypropanoic Acid	HFPO-DA	13252-13-6	6		
Perfluorohexanoic Acid	PFHxA	307-24-4	6		
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8	7		
Perfluoroheptanoic Acid	PFHpA	375-85-9	7		
3H-Perfluoro-4,8-dioxananoic Acid	DONA	919005-14-4	7		
9Cl-Perfluoro-3-oxanonanesulfonic Acid	PFHxA	756426-58-1	8		
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2 FTS	27619-97-2	8		
Perfluorooctanesulfonic Acid	PFOS	1763-23-1	8		
Perfluorooctanoic Acid	PFOA	335-67-1	8		
Perfluorononanoic Acid	PFNA	375-95-1	9		
11Cl-Perfluoro-3-oxaundecanesulfonic Acid	11Cl-PF3OUdS	763051-92-9	10		
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2 FTS	39108-34-4	10		
Perfluorodecanoic Acid	PFDA	335-76-2	10		
Perfluoroundecanoic Acid	PFUnA	2058-94-8	11		
Perfluorododecanoic Acid	PFDoA	307-55-1	12		

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Mixtures. Continued from previous page

Product Code	Product Description	Pack size	Analytes	
DRE-A50000152MW	EPA Method 537.1 PFAS Mixture 152 100 µg/mL in Methanol:Water	1ml	18 analytes	
Analytes		Abbreviation	CAS No.	Carbon Chain Length
Perfluorobutanesulfonic acid		PFBS	375-73-5	4
Perfluoro-2-propoxypropanoic acid (PFPrOPrA)		HFPO-DA	13252-13-6	6
Perfluorohexanesulfonic acid		PFHxS	355-46-4	6
Perfluorohexanoic acid		PFHxA	307-24-4	6
3H-Perfluoro-4,8-dioxananoic acid		DONA	919005-14-4	7
Perfluoroheptanoic acid		PFHpA	375-85-9	7
2-(N-Ethylperfluorooctanesulfonamido)acetic acid		N-EtFOSAA	2991-50-6	8
2-(N-Methylperfluorooctanesulfonamido)acetic acid		N-MeFOSAA	2355-31-9	8
9-Chloro-perfluoro-3-oxanonesulfonic acid potassium		9Cl-PF3ONS	73606-19-6	8
Perfluorooctane sulfonic acid		PFOS	1763-23-1	8
Perfluorooctanoic acid		PFOA	335-67-1	8
Perfluorononanoic acid		PFNA	375-95-1	9
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid potassium		11Cl-PF3OUdS	83329-89-9	10
Perfluorodecanoic acid		PFDA	335-76-2	10
Perfluoroundecanoic acid		PFUnA	2058-94-8	11
Perfluorododecanoic acid		PFDoA	307-55-1	12
Perfluorotridecanoic acid		PFTTrDA	72629-94-8	13
Perfluorotetradecanoic acid		PFTeDA	376-06-7	14

Product Code	Product Description	Pack size	Analytes	
DRE-A50000752MW	EPA Method 8327 PFAS Mixture 10 µg/mL in Methanol:Water	1ml	24 analytes	
Analytes		Abbreviation	CAS No.	Carbon Chain Length
Perfluorobutanoic Acid		PFBA	375-22-4	4
Perfluorobutanesulfonic Acid		PFBS	375-73-5	4
Perfluoropentanesulfonic Acid		PFPeS	2706-91-4	5
Perfluoropentanoic Acid		PFPeA	2706-90-3	5
Perfluorohexanoic Acid		PFHxA	307-24-4	6
Perfluorohexanesulfonic Acid		PFHxS	355-46-4	6
1H,1H,2H,2H-Perfluorohexanesulfonic Acid		4:2 FTS	757124-72-4	6
Perfluoroheptanoic Acid		PFHpA	375-85-9	7
Perfluoroheptanesulfonic Acid		PFHpS	375-92-8	7
2-(N-Ethylperfluorooctanesulfonamido)acetic Acid		N-EtFOSAA	2991-50-6	8
Perfluorooctanesulfonic Acid		PFOS	1763-23-1	8
Perfluorooctanoic Acid		PFOA	335-67-1	8
2-(N-Methylperfluorooctanesulfonamido)acetic Acid		N-MeFOSAA	2355-31-9	8
Perfluorooctane Sulfonamide		PFOSA	754-91-6	8
1H,1H,2H,2H-Perfluorooctanesulfonic Acid		6:2 FTS	27619-97-2	8
Perfluorononanoic Acid		PFNA	375-95-1	9

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Analytes	Abbreviation	CAS No.	Carbon Chain Length
Perfluorononanesulfonic Acid	PFNS	68259-12-1	9
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2 FTS	39108-34-4	10
Perfluorodecanoic Acid	PFDA	335-76-2	10
Perfluorodecanesulfonic Acid	PFDS	335-77-3	10
Perfluoroundecanoic Acid	PFUnA	2058-94-8	11
Perfluorododecanoic Acid	PFDoA	307-55-1	12
Perfluorotridecanoic Acid	PFTTrDA	72629-94-8	13
Perfluorotetradecanoic Acid	PFTeDA	376-06-7	14

Product Code	Product Description	Pack size	Analytes		
DRE-A50000754MW	UCMR5 PFAS Mixture 10 µg/mL in Methanol:Water	1ml	29 analytes		
Analytes	Abbreviation	CAS No.	Carbon Chain Length		
Perfluorobutanoic Acid	PFBA	375-22-4	4		
Perfluorobutanesulfonic Acid	PFBS	375-73-5	4		
Perfluoro-3-methoxypropanoic Acid	PFMPA	377-73-1	4		
Perfluoro(2-ethoxyethane) Sulfonic Acid	PFEESA	113507-82-7	4		
Perfluoropentanoic Acid	PFPeA	2706-90-3	5		
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4	5		
Perfluoro-4-methoxybutanoic Acid	PFMBA	863090-89-5	5		
Perfluoro-3,6-dioxahexanoic Acid	NFDHA	151772-58-6	5		
Perfluoro-2-propoxypropanoic Acid	HFPO-DA	13252-13-6	6		
Perfluorohexanoic Acid	PFHxA	307-24-4	6		
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2 FTS	757124-72-4	6		
Perfluorohexanesulfonic Acid	PFHxS	355-46-4	6		
Perfluoroheptanoic Acid	PFHpA	375-85-9	7		
3H-Perfluoro-4,8-dioxanonanoic Acid	DONA	919005-14-4	7		
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8	7		
Perfluorooctanoic Acid	PFOA	335-67-1	8		
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2 FTS	27619-97-2	8		
2-(N-Methylperfluorooctanesulfonamido)acetic Acid	N-MeFOSAA	2355-31-9	8		
2-(N-Ethylperfluorooctanesulfonamido)acetic Acid	N-EtFOSAA	2991-50-6	8		
Perfluorooctanesulfonic Acid	PFOS	1763-23-1	8		
9Cl-Perfluoro-3-oxanonanesulfonic Acid	9Cl-PF3ONS	756426-58-1	8		
Perfluorononanoic Acid	PFNA	375-95-1	9		
11Cl-Perfluoro-3-oxaundecanesulfonic Acid	11Cl-PF3OUdS	763051-92-9	10		
Perfluorodecanoic Acid	PFDA	335-76-2	10		
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2 FTS	39108-34-4	10		
Perfluoroundecanoic Acid	PFUnA	2058-94-8	11		
Perfluorododecanoic Acid	PFDoA	307-55-1	12		
Perfluorotridecanoic Acid	PFTTrDA	72629-94-8	13		
Perfluorotetradecanoic Acid	PFTeDA	376-06-7	14		

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Product Code	Product Description	Pack size	Analytes	
DRE-A50000738MW	Massachusetts PFAS Mixture 2 µg/mL in Methanol:Water	1ml	6 analytes	
Analytes		Abbreviation	CAS No.	Carbon Chain Length
Perfluorohexanesulfonic Acid		PFHxS	355-46-4	6
Perfluoroheptanoic Acid		PFHpA	375-85-9	7
Perfluorooctanesulfonic Acid		13C2-6:2 FTSNa	1763-23-1	8
Perfluorooctanoic Acid		PFOA	335-67-1	8
Perfluorononanoic Acid		PFNA	375-95-1	9
Perfluorodecanoic Acid		PFDA	335-76-2	10

Product Code	Product Description	Pack size	Analytes	
DRE-A30000051MW	EU Drinking Water Directive PFAS Mixture 10 µg/mL in Methanol:Water	1ml	20 analytes	
Analytes		Abbreviation	CAS No.	Carbon Chain Length
Perfluorobutanoic Acid		PFBA	375-22-4	4
Perfluorobutanesulfonic Acid		PFBS	375-73-5	4
Perfluoropentanoic Acid		PFPeA	2706-90-3	5
Perfluoropentanesulfonic Acid		PFPeS	2706-91-4	5
Perfluorohexanesulfonic Acid		PFHxS	355-46-4	6
Perfluorohexanoic Acid		PFHxA	307-24-4	6
Perfluoroheptanoic Acid		PFHpA	375-85-9	7
Perfluoroheptanesulfonic Acid		PFHpS	375-92-8	7
Perfluorooctanesulfonic Acid		PFOS	1763-23-1	8
Perfluorooctanoic Acid		PFOA	335-67-1	8
Perfluorononanoic Acid		PFNA	375-95-1	9
Perfluorononanesulfonic Acid		PFNS	68259-12-1	9
Perfluorodecanoic Acid		PFDA	335-76-2	10
Perfluorodecanesulfonic Acid		PFDS	335-77-3	10
Perfluoroundecanoic Acid		PFUnA	2058-94-8	11
Perfluoroundecanesulfonic Acid		PFUnDS	749786-16-1	11
Perfluorododecanoic Acid		PFDoA	307-55-1	12
Perfluorododecanesulfonic Acid		PFDoDS	79780-39-5	12
Perfluorotridecanoic Acid		PFTTrDA	72629-94-8	13
Perfluorotridecanesulfonic Acid		PFTTrDS	791563-89-8	13

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Product Code	Product Description	Pack size	Analytes	
DRE-A50000151MW	PFAS Mixture 151 100 µg/mL in Methanol:Water	1ml	24 analytes	
Analytes		Abbreviation	CAS No.	Carbon Chain Length
<i>Perfluorobutanesulfonic acid potassium salt</i>		PFBSK	29420-49-3	4
Perfluorobutanoic acid		PFBA	375-22-4	4
<i>Perfluoropentanesulfonic acid sodium salt</i>		PFPeS	630402-22-1	5
Perfluoropentanoic acid		PFPeA	2706-90-3	5
1,1,2,2H-Perfluorohexanesulfonic acid		4:2 FTS	757124-72-4	6
<i>Perfluorohexanesulfonic acid potassium salt</i>		PFHxS	3871-99-6	6
Perfluorohexanoic acid		PFHxA	307-24-4	6
Perfluoroheptanesulfonic acid		PFHpS	375-92-8	7
Perfluoroheptanoic acid		PFHpA	375-85-9	7
1,1,2,2H-Perfluorooctanesulfonic acid		6:2 FTS	27619-97-2	8
2-(N-Ethylperfluorooctanesulfonamido)acetic acid		N-EtFOSAA	2991-50-6	8
2-(N-Methylperfluorooctanesulfonamido)acetic acid		N-MeFOSAA	2355-31-9	8
Perfluorooctane sulfonamide PFOSA		PFOSA	754-91-6	8
<i>Perfluorooctane sulfonic acid potassium salt (PFOS)</i>		PFOS	2795-39-3	8
Perfluorooctanoic acid		PFOA	335-67-1	8
<i>Perfluorononanesulfonic acid sodium salt</i>		PFNS	98789-57-2	9
Perfluorononanoic acid		PFNA	375-95-1	9
1,1,2,2H-Perfluorodecane sulfonic acid		8:2 FTS	39108-34-4	10
Perfluorodecane sulfonic acid sodium salt		PFDS	2806-15-7	10
Perfluorodecanoic acid		PFDA	335-76-2	10
Perfluoroundecanoic acid		PFUnA	2058-94-8	11
Perfluorododecanoic acid		PFDoA	307-55-1	12
Perfluorotridecanoic acid		PFTriDA	72629-94-8	13
Perfluorotetradecanoic acid		PFTeDA	376-06-7	14

Product Code	Product Description	Pack size	Analytes	
DRE-A50000647MW	PFASiMix 100 µg/mL in Methanol:Water	1ml	27 analytes	
Analytes		Abbreviation	CAS No.	Carbon Chain Length
Perfluoro(2-ethoxyethane) sulfonic acid		PFEESA	113507-82-7	4
Perfluoro-3-methoxypropanoic acid		PFMOPrA	377-73-1	4
Perfluorobutanesulfonic acid		PFBS	375-73-5	4
Perfluorobutanoic acid		PFBA	375-22-4	4
Perfluoro-3,6-dioxahexanoic acid		PFDHA	151772-58-6	5
Perfluoro-4-methoxybutanoic acid		PFMOBA	863090-89-5	5
Perfluoropentanesulfonic Acid		PFPeS	2706-91-4	5
Perfluoropentanoic acid		PFPeA	2706-90-3	5
1H,1H,2H,2H-Perfluorohexanesulfonic acid sodium		4:2 FTS	27619-93-8	6
Perfluoro-2-propoxypropanoic acid		PFPrOPrA	13252-13-6	6
Perfluorohexanesulfonic acid		PFHxS	355-46-4	6

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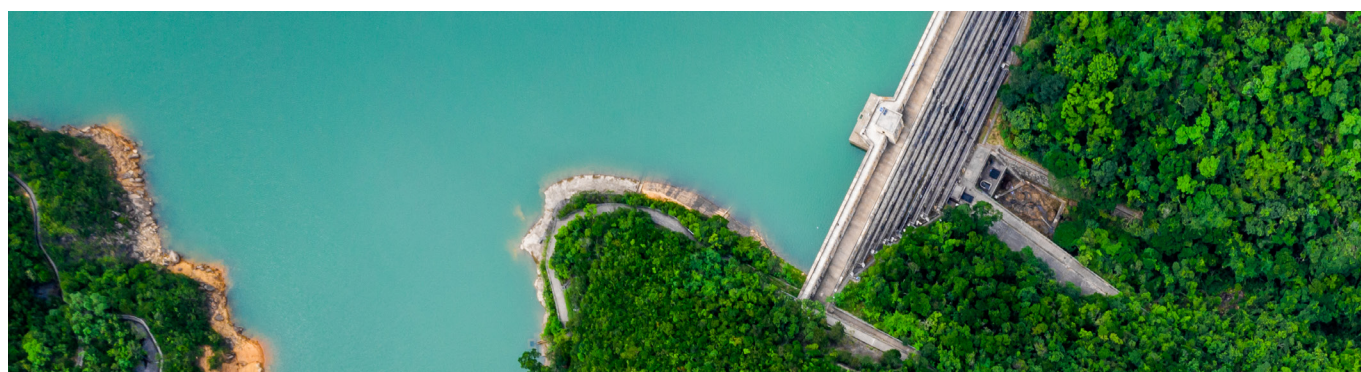
PFAS reference materials

Product Listings

Mixtures. Continued from previous page

Analytes	Abbreviation	CAS No.	Carbon Chain Length
Perfluorohexanoic acid	PFHxA	307-24-4	6
3H-Perfluoro-4,8-dioxananoic acid	DONA	919005-14-4	7
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	7
Perfluoroheptanoic acid	PFHpA	375-85-9	7
1H,1H,2H,2H-Perfluorooctane sulfonic acid sodium	6:2 FTS	27619-94-9	8
2-(N-Ethylperfluorooctanesulfonamido)acetic acid	N-EtFOSAA	2991-50-6	8
2-(N-Methylperfluorooctanesulfonamido)acetic acid	N-MeFOSAA	2355-31-9	8
Perfluorooctane sulfonic acid	PFOS	1763-23-1	8
Perfluorooctanoic acid	PFOA	335-67-1	8
Perfluorononanoic acid	PFNA	375-95-1	9
1,1,2,2H-Perfluorodecanesulfonic acid sodium salt	8:2 FTS	27619-96-1	10
Perfluorodecanoic acid	PFDA	335-76-2	10
Perfluoroundecanoic acid	PFUnA	2058-94-8	11
Perfluorododecanoic acid	PFDoA	307-55-1	12
Perfluorotridecanoic acid	PFTTrDA	72629-94-8	13
Perfluorotetradecanoic acid	PFTeDA	376-06-7	14

Product Code	Product Description	Pack size	Analytes		
DRE-GS09000218MW	PFAA Mixture 218 100 µg/mL in Methanol:Water	1ml	11 analytes		
Analytes	Abbreviation	CAS No.	Carbon Chain Length		
Perfluoro-1-butanefulfonic Acid	PFBS	375-73-5	4		
Perfluorohexanoic Acid	PFHxA	307-24-4	6		
Perfluoroheptanoic Acid	PFHpA	375-85-9	7		
Pentadecafluorooctanoic Acid Hydrate	PFOA	335-67-1	8		
Perfluorooctanesulfonic Acid	PFOS	1763-23-1	8		
Perfluorononanoic Acid	PFNA	375-95-1	9		
Perfluorodecanoic Acid	PFDA	335-76-2	10		
Perfluoroundecanoic Acid	PFUnA	2058-94-8	11		
Perfluorododecanoic Acid	PFDoA	307-55-1	12		
Perfluorotridecanoic Acid	PFTTrDA	72629-94-8	13		
Perfluorotetradecanoic Acid	PFTeDA	376-06-7	14		



Stable Isotopes

Our range of PFAS reference materials include ¹³C stable isotope labeled PFAS compounds to support regulatory testing requirements and improved analytical accuracy including when working with complex matrices. Available in single solution format and accredited to ISO 17034 to provide you confidence in your results.

Product Number	Product Description	Pack Size	Abbreviation	Labelled CAS Number	Unlabelled CAS Number	Carbon Chain Length
DRE-A15986523MW-50	Perfluorobutanoic acid ¹³ C3 (2,3,4- ¹³ C3) 50 µg/mL in Methanol:Water	1ml	¹³ C3-PFBA	2483735-33-5	375-22-4	4
DRE-A15986521MW-50	Perfluorobutanoic acid ¹³ C4 50 µg/mL in Methanol:Water	1ml	¹³ C4-PFBA	1017281-29-6	375-22-4	4
<i>DRE-A15986629MW-50</i>	1H,1H,2H,2H-Perfluorohexanesulfonic acid ¹³ C2 (1,2- ¹³ C2) sodium 50 µg/mL in Methanol:Water	1ml	¹³ C2-4:2 FTSNa	2708218-88-4	27619-93-8	6
<i>DRE-A15987149MW-50</i>	Perfluorooctanoic acid ¹³ C2 (1,2- ¹³ C2) sodium 50 µg/mL in Methanol:Water	1ml	¹³ C2-PFOA	-	335-95-5	8
<i>DRE-A15987127MW-50</i>	1H,1H,2H,2H-Perfluorooctanesulfonic acid ¹³ C2 (1,2- ¹³ C2) sodium 50 µg/mL in Methanol:Water	1ml	¹³ C2-6:2 FTSNa	2708218-89-5	27619-94-9	8
DRE-A15130020MW-50	2-(N-Methylperfluorooctanesulfonamido)acetic acid ¹³ C3 50 µg/mL in Methanol:Water	1ml	¹³ C3-N-MeFOSAA	-	2355-31-9	8
DRE-A13349620MW-50	2-(N-Ethylperfluorooctanesulfonamido)acetic acid ¹³ C4 50 µg/mL in Methanol:Water	1ml	¹³ C4-N-EtFOSAA	-	2991-50-6	8
<i>DRE-A15986587MW-50</i>	1H,1H,2H,2H-Perfluorodecane sulfonic acid ¹³ C2 (1,2- ¹³ C2) sodium 50 µg/mL in Methanol:Water	1ml	¹³ C2-8:2 FTSNa	2708218-90-8	27619-96-1	10
DRE-A15986628MW-50	Perfluorododecanoic acid ¹³ C2 (1,2- ¹³ C2) 50 µg/mL in Methanol:Water	1ml	¹³ C2-MPFD _o A	960315-52-0	307-55-1	12
DRE-A15988003MW-50	Perfluorotridecanoic acid ¹³ C2 (1,2- ¹³ C2) 50 µg/mL in Methanol:Water	1ml	¹³ C2-PFT _r DA	-	72629-94-8	13
DRE-A15987410MW-50	Perfluorotetradecanoic acid ¹³ C2 (1,2- ¹³ C2) 50 µg/mL in Methanol:Water	1ml	¹³ C2-PFT _e DA	2708218-82-8	376-06-7	14



Per- and Polyfluorocarboxylic Acids (PFCA)

Per- and polyfluorocarboxylic Acids are organofluorine analogues of ordinary carboxylic acids. They exhibit hydrophobic properties and are widely used in the synthesis of peptides. Longer chain perfluorocarboxylic acids such as perfluorooctanoic Acid (PFOA) are used in firefighting foams and are under increased scrutiny due to their bioaccumulative properties.

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-A17844400MW-50	Trifluoroacetic acid 50 µg/mL in Methanol:Water	1ml	-	76-05-1	2
DRE-CA13802000	Flupropionate	50g	-	756-09-2	3
DRE-CA15986940	Perfluoro-2-methoxyacetic acid (PFMOAA)	25mg	PFMOAA	674-13-5	3
DRE-A15987240MW-50	Perfluoropropionic acid 50 µg/mL in Methanol:Water	1ml	PFPrA	422-64-0	3
DRE-CA15987240	Perfluoropropionic acid	500mg	PFPrA	422-64-0	3
DRE-C15986520	Perfluorobutanoic acid	100mg	PFBA	375-22-4	4
DRE-A15986520AL-100	Perfluorobutanoic acid 100 µg/mL in Acetonitrile	1ml	PFBA	375-22-4	4
DRE-A15986612MW-50	Perfluoro-3,6-dioxaheptanoic acid 50 µg/mL in Methanol:Water	1ml	NFDHA	151772-58-6	5
DRE-A15987200MW-50	Perfluoro-n-pentanoic acid 50 µg/mL in Methanol:Water	1ml	PFPeA	2706-90-3	5
DRE-C15987200	Perfluoropentanoic acid	100mg	PFPeA	2706-90-3	5
DRE-A15987200MW-100	Perfluoropentanoic acid 100 µg/mL in Methanol:Water	1ml	PFPeA	2706-90-3	5
DRE-C15986910	Perfluorohexanoic acid	100mg	PFHxA	307-24-4	6
DRE-C15986912	2H,2H,3H,3H-Perfluorohexanoic acid	50mg	3:3 FTCA	356-02-5	6
<i>DRE-A15986980MW-50</i>	Perfluoro-2-methyl-3-oxahexanoic acid ammonium 50 µg/mL in Methanol:Water	1ml	HFPO-DA	62037-80-3	6
DRE-A15986910AL-100	Perfluorohexanoic acid 100 µg/mL in Acetonitrile	1ml	PFHxA	307-24-4	6
<i>DRE-C15986909</i>	Perfluorohexanoic acid sodium	100mg	PFHxA	2923-26-4	6
<i>DRE-A15986909MW-50</i>	Perfluorohexanoic acid sodium 50 µg/mL in Methanol:Water	1ml	PFHxA	2923-26-4	6
DRE-A15986618MW-50	3H-Perfluoro-4,8-dioxanonanoic acid 50 µg/mL in Methanol:Water	1ml	DONA	919005-14-4	7
DRE-C15986892	7H-Perfluoroheptanoic acid	100mg	HPFHpA	1546-95-8	7
DRE-C15986890	Perfluoroheptanoic acid	100mg	PFHpA	375-85-9	7
DRE-A15986890MW-100	Perfluoro-n-heptanoic acid 100 µg/mL in Methanol:Water	1ml	PFHpA	375-85-9	7
DRE-C15987147	2H,2H,3H,3H-Perfluorooctanoic acid	50mg	5:3 FTCA	914637-49-3	8
DRE-C15987145	2H,2H-Perfluorooctanoic acid	10mg	FHEA	53826-12-3	8
DRE-C15987162	2H-Perfluoro-2-octenoic acid	50mg	FHUEA	70887-88-6	8
DRE-A15987162AL-100	2H-Perfluoro-2-octenoic acid 100 µg/mL in Acetonitrile	1 mL	FHUEA	70887-88-6	8
DRE-CA15986988	Perfluoro-6-methylheptanoic acid sodium	10mg	-	18017-22-6	8
<i>DRE-A15986988MW-50</i>	Perfluoro-6-methylheptanoic acid sodium 50 µg/mL in Methanol:Water	1ml	-	18017-22-6	8
<i>DRE-CA15986984</i>	Perfluoro-7-methyloctanoic acid sodium	10mg	-	-	8
<i>DRE-A15986984MW-50</i>	Perfluoro-7-methyloctanoic acid sodium 50 µg/mL in Methanol:Water	1ml	-	-	8
DRE-C15987150	Perfluorooctanoic acid	100mg	PFOA	335-67-1	8

PFAS reference materials

Product Listings

Perfluorocarboxylic Acids (PFCA). Continued from previous page

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-A15987150AL-100	Perfluorooctanoic acid 100 µg/mL in Acetonitrile	1ml	PFOA	335-67-1	8
DRE-A15987150MW-100	Perfluorooctanoic acid 100 µg/mL in Methanol:Water	1ml	PFOA	335-67-1	8
<i>DRE-A15987149MW-50</i>	Perfluorooctanoic acid 13C2 (1,2-13C2) sodium 50 µg/mL in Methanol:Water	1ml	PFOA	864071-08-11	8
DRE-A15987150MW-50	Perfluorooctanoic acid 50 µg/mL in Methanol:Water	1ml	PFOA	335-67-1	8
<i>DRE-C15987152</i>	Perfluorooctanoic acid ammonium	100mg	PFOA	3825-26-1	8
<i>DRE-A15987152ME-100</i>	Perfluorooctanoic acid ammonium 100 µg/mL in Methanol	1ml	PFOA	3825-26-1	8
DRE-C15987000	Perfluorononanoic acid	100mg	PFNA	375-95-1	9
DRE-A15987000AL-100	Perfluorononanoic acid 100 µg/mL in Acetonitrile	1ml	PFNA	375-95-1	9
DRE-C15986604	1H,1H,2H,2H-Perfluorodecanoic acid	10mg	7:3 FTCA	812-70-4	10
DRE-C15986598	2H,2H-Perfluorodecanoic acid	10mg	FOEA	27854-31-5	10
DRE-C15986640	2H-Perfluoro-2-decenoic acid	10mg	FOUEA	70887-84-2	10
DRE-C15986608	Perfluoro(3,7-bis(trifluoromethyl))octanoic acid	100mg	3,7m2-PFOA	172155-07-6	10
DRE-C15986600	Perfluorodecanoic acid	100mg	PFDA	335-76-2	10
DRE-A15986600MW-50	Perfluoro-n-decanoic acid 50 µg/mL in Methanol:Water	1ml	PFDA	335-76-2	10
DRE-C13112600	11-H-Eicosaflluoroundecanoic acid	100mg	HPFUndA	1765-48-6	11
DRE-C15989010	2H,2H,3H,3H-Perfluoroundecanoic acid	50mg	H4PFUnA	34598-33-9	11
DRE-A15989010ME-50	2H,2H,3H,3H-Perfluoroundecanoic acid 50 µg/mL in Methanol	1ml	H4PFUnA	34598-33-9	11
DRE-A15989000MW-50	Perfluoro-n-undecanoic acid 50 µg/mL in Methanol:Water	1ml	PFUnA	2058-94-8	11
DRE-C15989000	Perfluoroundecanoic acid	100mg	PFUnA	2058-94-8	11
DRE-C15986621	2H,2H-Perfluorododecanoic acid	25mg	FDEA	53826-13-4	12
DRE-A15986621MW-100	2H,2H-Perfluorododecanoic acid 100 µg/mL in Methanol:Water	1ml	FDEA	53826-13-4	12
DRE-C15986624	2H-Perfluoro-2-dodecenoic acid	10mg	FDUEA	70887-94-4	12
DRE-A15986624AL-100	2H-Perfluoro-2-dodecenoic acid 100 µg/mL in Acetonitrile	1 mL	FDUEA	70887-94-4	12
DRE-C15986620	Perfluorododecanoic acid	50mg	PFDoA	307-55-1	12
DRE-A15986620MW-50	Perfluoro-n-dodecanoic acid 50 µg/mL in Methanol:Water	1ml	PFDoA	307-55-1	12
DRE-C15988000	Perfluorotridecanoic acid	100mg	PFTTrDA	72629-94-8	13
DRE-A15988003MW-50	Perfluorotridecanoic acid 13C2 (1,2-13C2) 50 µg/mL in Methanol:Water	1ml	PFTTrDA	-	13
DRE-A15988000MW-50	Perfluorotridecanoic acid 50 µg/mL in Methanol:Water	1ml	PFTTrDA	72629-94-8	13
DRE-CA15986929	1H,1H,2H,2H-Perfluoro-1-iodotetradecane	50mg	-	30046-31-2	14
DRE-C15987400	Perfluorotetradecanoic acid	50mg	PFTTeDA	376-06-7	14
DRE-A15987410MW-50	Perfluorotetradecanoic acid 13C2 (1,2-13C2) 50 µg/mL in Methanol:Water	1ml	PFTTeDA	2708218-82-8	14
DRE-A15987400MW-50	Perfluorotetradecanoic acid 50 µg/mL in Methanol:Water	1ml	PFTTeDA	376-06-7	14
DRE-C15986895	Perfluorohexadecanoic acid	50mg	PFHxDA	67905-19-5	16
DRE-A15986895MW-50	Perfluorohexadecanoic acid 50 µg/mL in Methanol:Water	1ml	PFHxDA	67905-19-5	16
DRE-C15987080	Perfluorooctadecanoic acid	50mg	PFODA	16517-11-6	18
DRE-A15987080MW-50	Perfluorooctadecanoic acid 50 µg/mL in Methanol:Water	1ml	PFODA	16517-11-6	18

Per- and Polyfluorosulfonic Acids

Per- and Polyfluorosulfonic Acids (PFSAs) are a subgroup of per- and polyfluoroalkyl substances (PFAS) characterized by a sulfonic acid functional group. Due to their exceptional stability and resistance to degradation, PFSAs have been widely used in various industrial applications, including stain-resistant fabrics, firefighting foams, and non-stick cookware. Their persistence in the environment and human body has raised significant health and environmental concerns, with studies linking PFSAs to adverse effects such as cancer, hormone disruption, and immune system impacts. Due to these risks, regulatory efforts are increasingly aimed at reducing their use and managing their environmental presence.

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
<i>DRE-C15986933</i>	Perfluoromethane sulfinic acid sodium	100mg	Triflinic	2926-29-6	1
DRE-A15986935MW-50	Perfluoromethanesulfonic acid 50 µg/mL in Methanol:Water	1ml	TFMS	1493-13-6	1
DRE-C15986935	Perfluoromethanesulfonic acid	250mg	TFMS	1493-13-6	1
<i>DRE-C17844760</i>	Trifluoromethanesulfonic acid sodium	250mg	TFMS	2926-30-9	2
DRE-A15986810MW-50	Perfluoroethanesulfonic acid 50 µg/mL in Methanol:Water	1ml	PFETs	354-88-1	2
DRE-CA15986810	Perfluoroethanesulfonic acid	10mg	PFETs	354-88-1	2
<i>DRE-CA15987235</i>	Perfluoropropanesulfonic acid sodium	10mg	-	359868-82-9	3
DRE-C15986820	Perfluoro(2-ethoxyethane) sulfonic acid	100mg	PFEESA	113507-82-7	4
DRE-A15986820MW-50	Perfluoro(2-ethoxyethane) sulfonic acid 50 µg/mL in Methanol:Water	1ml	PFEESA	113507-82-7	4
DRE-CA15986515	Perfluorobutanesulfonic acid	100mg	PFBS	375-73-5	4
DRE-A15986515MW-100	Perfluorobutanesulfonic acid 100 µg/mL in Methanol:Water	1ml	PFBS	375-73-5	4
<i>DRE-C15986517</i>	Perfluorobutanesulfonic acid potassium	100mg	PFBSK	29420-49-3	4
<i>DRE-CA15987190</i>	Perfluoropentanesulfonic acid	25mg	PFPeS	2706-91-4	5
DRE-A15987190MW-100	Perfluoropentanesulfonic acid 100 µg/mL in Methanol:Water	1 mL	PFPeS	2706-91-4	5
<i>DRE-A15987205MW-50</i>	Perfluoropentanesulfonic acid sodium 50 µg/mL in Methanol:Water	1ml	PFPeS	630402-22-1	5
DRE-C15986903	1H,1H,2H,2H-Perfluorohexanesulfonic acid	25mg	4:2 FTS	757124-72-4	6
DRE-A15986903MW-100	1H,1H,2H,2H-Perfluorohexanesulfonic acid 100 µg/mL in Methanol:Water	1ml	4:2 FTS	757124-72-4	6
<i>DRE-A15986629MW-50</i>	1H,1H,2H,2H-Perfluorohexanesulfonic acid 13C2 (1,2-13C2) sodium 50 µg/mL in Methanol:Water	1ml	13C2-4:2 FTSNa	2708218-88-4	6
DRE-C15986900	Perfluorohexanesulfonic acid	50mg	PFHxS	355-46-4	6
DRE-A15986900AL-100	Perfluorohexanesulfonic acid 100 µg/mL in Acetonitrile	1ml	PFHxS	355-46-4	6
DRE-A15986900MW-50	Perfluorohexanesulfonic acid 50 µg/mL in Methanol:Water	1ml	PFHxS	355-46-4	6
<i>DRE-CA15986905</i>	Perfluorohexanesulfonic acid sodium	10mg	PFHxS	82382-12-5	6
DRE-CA15986614	7H-Perfluoro-3,6-dioxo-4-methyl-octane-1-sulfonic acid	10mg	Hydro-PS Acid	749836-20-2	7
DRE-CA15986615	Perfluoro-3,6-dioxo-4-methyl-7-octene-1-sulfonic acid	10mg	-	29311-67-9	7
<i>DRE-C15986880</i>	Perfluoroheptanesulfonic acid	50mg	PFHpS	375-92-8	7
<i>DRE-A15986880AL-100</i>	Perfluoroheptanesulfonic acid 100 µg/mL in Acetonitrile	1ml	PFHpS	375-92-8	7
<i>DRE-C15987125</i>	1H,1H,2H,2H-Perfluorooctane sulfonic acid	10mg	6:2 FTS	27619-97-2	8

PFAS reference materials

Product Listings

Perfluoroalkyl Sulfonic Acids (PFSA). Continued from previous page

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-A15987125ME-100	1H,1H,2H,2H-Perfluorooctane sulfonic acid 100 µg/mL in Methanol	1ml	6:2 FTS	27619-97-2	8
DRE-A15987126MW-50	1H,1H,2H,2H-Perfluorooctane sulfonic acid sodium 50 µg/mL in Methanol:Water	1 mL	6:2 FTS	27619-94-9	8
<i>DRE-A15987127MW-50</i>	1H,1H,2H,2H-Perfluorooctanesulfonic acid 13C2 (1,2-13C2) sodium 50 µg/mL in Methanol:Water	1ml	13C2-6:2 FTSNa	2708218-89-5	8
<i>DRE-A11459000MW-50</i>	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid potassium 50 µg/mL in Methanol:Water	1ml	9Cl-PF3ONS	73606-19-6	8
DRE-C11041290	Capstone product A	10mg	-	80475-32-7	8
DRE-C11041300	Capstone product B	25mg	-	34455-29-3	8
<i>DRE-CA15987120</i>	Perfluorooctane sulfonic acid	25mg	PFOS	1763-23-1	8
DRE-XA15987120ME	Perfluorooctane sulfonic acid 100 µg/mL in Methanol	1ml	PFOS	1763-23-1	8
<i>DRE-C15987122</i>	Perfluorooctane sulfonic acid potassium	100mg	PFOS	2795-39-3	8
<i>DRE-A15987122MW-100</i>	Perfluorooctane sulfonic acid potassium 100 µg/mL in Methanol:Water	1ml	PFOS	2795-39-3	8
DRE-C15987130	Perfluorooctane sulfonyl fluoride	100mg	PFOS	307-35-7	8
<i>DRE-CA15987022</i>	Perfluorononanesulfonic acid sodium	5mg	PFNS	98789-57-2	9
<i>DRE-A15987022MW-50</i>	Perfluorononanesulfonic acid sodium 50 µg/mL in Methanol:Water	1 mL	PFNS	98789-57-2	9
<i>DRE-A11407100MW-50</i>	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid potassium 50 µg/mL in Methanol:Water	1ml	11Cl-PF3OUdS	83329-89-9	10
<i>DRE-CA11407100</i>	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid potassium	5mg	11Cl-PF3OUdS	83329-89-9	10
DRE-C15986585	1H,1H,2H,2H-Perfluorodecanesulfonic acid	25mg	8:2 FTS	39108-34-4	10
<i>DRE-A15986587MW-50</i>	1H,1H,2H,2H-Perfluorodecanesulfonic acid 13C2 (1,2-13C2) sodium 50 µg/mL in Methanol:Water	1ml	13C2-8:2 FTSNa	2708218-90-8	10
DRE-A15986585MW-50	1H,1H,2H,2H-Perfluorodecanesulfonic acid 50 µg/mL in Methanol:Water	1ml	8:2 FTS	39108-34-4	10
<i>DRE-A15986586MW-50</i>	1H,1H,2H,2H-Perfluorodecanesulfonic acid sodium 50 µg/mL in Methanol:Water	1ml	8:2 FTS	27619-96-1	10
DRE-CA15986580	Perfluorodecanesulfonic acid	5mg	PFDS	335-77-3	10
DRE-A15986580AL-100	Perfluorodecanesulfonic acid 100 µg/mL in Acetonitrile	1 mL	PFDS	335-77-3	10
DRE-A15986580MW-50	Perfluorodecanesulfonic acid 50 µg/mL in Methanol:Water	1 mL	PFDS	335-77-3	10
<i>DRE-CA15986581</i>	Perfluorodecanesulfonic acid sodium	5mg	PFDS	2806-15-7	10
<i>DRE-A15986581AL-100</i>	Perfluorodecanesulfonic acid sodium 100 µg/mL in Acetonitrile	1 mL	PFDS	2806-15-7	10
<i>DRE-A15986581MW-50</i>	Perfluorodecanesulfonic acid sodium 50 µg/mL in Methanol:Water	1ml	PFDS	2806-15-7	10
<i>DRE-A15988995MW-50</i>	Perfluoroundecanesulfonic acid sodium 50 µg/mL in Methanol:Water	1 mL	PFUnDS	441296-91-9	11
DRE-C15986622	1H,1H,2H,2H-Perfluorododecane sulfonic acid	25mg	10:2 FTS	120226-60-0	12
DRE-A15986622MW-100	1H,1H,2H,2H-Perfluorododecane sulfonic acid 100 µg/mL in Methanol:Water	1ml	H4PFDoS	120226-60-0	12
<i>DRE-A15986632AC-50</i>	1H,1H,2H,2H-Perfluorododecane sulfonic acid sodium 50 µg/mL in Acetone	1 mL	10:2 FTS	108026-35-3	12
<i>DRE-CA15986632</i>	1H,1H,2H,2H-Perfluorododecanesulfonic acid sodium	10mg	10:2 FTS	108026-35-3	12
<i>DRE-A15986627MW-50</i>	Perfluorododecanesulfonic acid sodium 50 µg/mL in Methanol:Water	1ml	PFD0DS	1260224-54-1	12
<i>DRE-A15987995MW-50</i>	Perfluorotridecanesulfonic acid sodium 50 µg/mL in Methanol:Water	1 mL	PFTriDS	791563-89-8	13

Italic Product Number = Salt version

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Fluorotelomer Alcohols (FTOH)

Volatile precursors to perfluorinated carboxylic Acids (PFCAs), fluorotelomer alcohols (FTOHs) are fluorotelomers with an alcohol functional group. FTOHs are environmental contaminants characterised by high volatility, prone to long-range atmospheric transport. FTOHs have been identified in consumer products, including stain repellents and windscreen wiper fluid.

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-CA15987237	1H,1H-Perfluoropropanol	100mg	-	422-05-9	3
DRE-CA14194190	1,1,1,3,3,3-Hexafluoro-2-propanol	1g	-	920-66-1	3
DRE-C15986540	1H,1H-Perfluorobutanol	100mg	-	375-01-9	4
DRE-C15986913	1H,1H-Perfluorohexanol	50mg	-	423-46-1	6
DRE-C15986915	1H,1H,2H,2H-Perfluoro-1-hexanol	100mg	4:2 FTOH	2043-47-2	6
DRE-C15986886	1H,1H,7H-Perfluoroheptanol	1g	-	335-99-9	7
DRE-CA15986887	1H,1H,2H,2H,3H,3H-Perfluoroheptanol	100mg	-	83310-97-8	7
DRE-C15987160	1H,1H,2H,2H-Perfluoro-1-octanol	100mg	6:2 FTOH	647-42-7	8
DRE-C15987161	1H,1H,8H-Perfluorooctanol	250mg	-	10331-08-5	8
DRE-C15986601	1H,1H,2H,2H-Perfluoro-1-decanol	100mg	8:2 FTOH	678-39-7	10
DRE-C16986625	1H,1H,2H,2H-Perfluoro-1-dodecanol	100mg	10:2 FTOH	865-86-1	12
DRE-CA15987415	1H,1H,2H,2H-Perfluorotetradecanol	50mg	-	39239-77-5	14



Perfluoroalkyl Sulfonamides

Perfluoroalkyl sulfonamides (PFASAs) are a subclass of per- and polyfluoroalkyl substances (PFAS) characterised by their strong carbon-fluorine bonds and the presence of a sulfonamide group. These compounds are known for their exceptional chemical stability, resistance to heat, water, and oil repellency. Due to these properties, PFASAs have been widely used in various industrial applications, including as surfactants, lubricants, and in the production of non-stick coatings and textiles. However, their environmental persistence and potential health impacts have raised significant concerns, leading to increased regulatory scrutiny and efforts to find safer alternatives.

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-C10653522	N,N-Bis(2-hydroxyethyl)perfluorobutane sulfonamide	100mg	-	34455-00-0	4
DRE-C12723258	N-[3-(Dimethylamino)propyl]perfluoro1-butan-sulfonamide	10mg	-	68555-77-1	4
DRE-C15115450	N-Methylperfluorobutanesulfonamide	50mg	MeFBSA	68298-12-4	4
DRE-C15986519	Perfluorobutanesulfonylamide(N-methyl)acetate	10mg	MeFBSAA	159381-10-9	4
DRE-C15986512	Perfluorobutane sulfonamide	50mg	PFBSA	30334-69-1	4
DRE-C12723276	N-[3-(Dimethylamino)propyl]perfluoro1-hexanesulfonamide	10mg	-	50598-28-2	6
DRE-C15115470	N-Methylperfluorohexane sulfonamide	50mg	N-Me-FHxSA	68259-15-4	6
DRE-C15986898	Perfluorohexane sulfonamide	50mg	FHxSA	41997-13-1	6
DRE-CA13349600	2-(N-Ethylperfluorooctanesulfonamido)acetic acid	25mg	N-EtFOSAA	2991-50-6	8
DRE-A13349600AL-100	2-(N-Ethylperfluorooctanesulfonamido)acetic acid 100 µg/mL in Acetonitrile	1ml	N-EtFOSAA	2991-50-6	8
DRE-A13349620MW-50	2-(N-Ethylperfluorooctanesulfonamido)acetic acid 13C4 50 µg/mL in Methanol:Water	1ml	13C4-N-Et-FOSAA	-	8
DRE-A13349600MW-50	2-(N-Ethylperfluorooctanesulfonamido)acetic acid 50 µg/mL in Methanol:Water	1ml	N-EtFOSAA	2991-50-6	8
DRE-CA15130000	2-(N-Methylperfluorooctanesulfonamido)acetic acid	10mg	N-MeFOSAA	2355-31-9	8
DRE-A15130000AL-100	2-(N-Methylperfluorooctanesulfonamido)acetic acid 100 µg/mL in Acetonitrile	1ml	N-MeFOSAA	2355-31-9	8
DRE-A15130020MW-50	2-(N-Methylperfluorooctanesulfonamido)acetic acid 13C3 50 µg/mL in Methanol:Water	1ml	13C3-N-Me-FOSAA	-	8
DRE-A15130000MW-50	2-(N-Methylperfluorooctanesulfonamido)acetic acid 50 µg/mL in Methanol:Water	1ml	N-MeFOSAA	2355-31-9	8
DRE-C14231570	N-(2-Hydroxyethyl)-N-methylperfluorooctanesulfonamide	25mg	N-MeFOSE	24448-09-7	8
DRE-A14231570ME-100	N-(2-Hydroxyethyl)-N-methylperfluorooctanesulfonamide 100 µg/mL in Methanol	1ml	N-MeFOSE	24448-09-7	8
DRE-C12723278	N-[3-(Dimethylamino)propyl]perfluoro1-octanesulfonamide	10mg	-	13417-01-1	8
DRE-C13342360	N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide	50mg	N-EtFOSE	1691-99-2	8
DRE-A13342360ME-100	N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide 100 µg/mL in Methanol	1ml	N-EtFOSE	1691-99-2	8
DRE-C15115500	N-Methylperfluorooctanesulfonamide	50mg	N-MeFOSA	31506-32-8	8
DRE-A15115500MW-100	N-Methylperfluorooctanesulfonamide 100 µg/mL in Methanol:Water	1ml	N-MeFOSA	31506-32-8	8
DRE-C15987110	Perfluorooctane sulfonamide	100mg	PFOSA	754-91-6	8
DRE-C17004000	Sulfluramide	100mg	EtFOSA	4151-50-2	8

Polyfluoroalkyl Acrylates

Polyfluoroalkyl acrylates are a class of per- and polyfluoroalkyl substances (PFAS) used primarily as polymerization agents in the production of water and stain-resistant coatings, textiles, and paper products. Despite their beneficial applications, polyfluoroalkyl acrylates raise environmental and health concerns due to their persistence and potential to degrade into more stable and bioaccumulative PFAS, such as perfluorooctanoic acid (PFOA). Consequently, there is growing regulatory scrutiny and research focused on safer alternatives and the environmental impact of these substances.

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-CA15987227	1H,1H,5H-Perfluoropentyl methacrylate	100mg	-	355-93-1	5
DRE-CA15987169	1H,1H,2H,2H-Perfluorooctyl methacrylate	250mg	6:2 FTMAC	2144-53-8	8
DRE-C15987170	1H,1H,2H,2H-Perfluorooctyl acrylate	100mg	-	17527-29-6	8
DRE-CA15986595	1H,1H,2H,2H-Perfluorodecyl methacrylate	100mg	8:2 FTMAC	1996-88-9	10
DRE-C15986602	1H,1H,2H,2H-Perfluorodecyl acrylate	100mg	8:2FTAcr	27905-45-9	10
DRE-CA15986658	1H,1H,2H,2H-Perfluorododecyl methacrylate	50mg	-	2144-54-9	12
DRE-C15986630	1H,1H,2H,2H-Perfluorododecyl acrylate	50mg	10:2FTAcr	17741-60-5	12



Polyfluorinated Phosphate Esters

Polyfluorinated phosphate esters are a class of PFAS compounds that have useful properties including high stability, low surface tension and resistance to heat and chemicals. Therefore, they are often used as surfactants, lubricants and in fire-retardant applications. However, despite their useful applications they have raised concerns in the scientific community due to their persistence in the environment and potential health risks.

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-C10655185	Bis[2-(perfluorohexyl)ethyl] phosphate	10mg	6:2 Di-PAPS	57677-95-9	8/8
DRE-C10655195	Bis[2-(perfluorooctyl)ethyl] phosphate	10mg	8:2 Di-PAPS	678-41-1	10/10
DRE-C15312100	Mono[2-(perfluorooctyl)ethyl] phosphate	5mg	8:2 PAPS	57678-03-2	10
DRE-A10655210AL-100	Bis(2-perfluorooctylsulfonyl-N-ethylaminoethyl) phosphate 100 µg/mL in Acetonitrile	1ml	-	2965-52-8	8/8

Per- and Polyfluoroalkyl Ether Carboxylic Acids

Per- and polyfluoroalkyl ether carboxylic acids are a type of perfluorinated compound used in various industrial applications such as surfactants, lubricants and coatings. They are particularly sought after as they are exceptionally stable, water and oil repellent and resistant to heat and chemicals. However, like with other PFAS compounds they are under scrutiny for their persistence in the environment and potential health effects making them a crucial group of compounds to test for.

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-A15986940MW-50	Perfluoro-2-methoxyacetic acid 50 µg/mL in Methanol:Water	1ml	PFMOAA	674-13-5	3
DRE-CA15986970	Perfluoro-3-methoxypropanoic acid	50mg	PFMOPrA	377-73-1	4
DRE-A15986970MW-50	Perfluoro-3-methoxypropanoic acid 50 µg/mL in Methanol:Water	1ml	PFMOPrA	377-73-1	4
DRE-C15986612	Perfluoro-3,6-dioxahexanoic acid	100mg	NFDHA	151772-58-6	5
DRE-C15986950	Perfluoro-4-methoxybutanoic acid	25mg	PFMOBA	863090-89-5	5
DRE-A15986950MW-50	Perfluoro-4-methoxybutanoic acid 50 µg/mL in Methanol:Water	1ml	PFMOBA	863090-89-5	5
DRE-A15987250MW-100	Perfluoro-2-propoxypropanoic acid 100 µg/mL in Methanol:Water	1ml	PFPrOPrA	13252-13-6	6
DRE-C15987250	Perfluoro-2-propoxypropanoic acid	50mg	PFPrOPrA	13252-13-6	6
DRE-C15986625	Perfluoro-3,6-dioxaoctanoic acid	10mg	-	80153-82-8	6
DRE-C15986618	3H-Perfluoro-4,8-dioxanonanoic acid	10mg	DONA	919005-14-4	7
DRE-C15986605	Perfluoro-2,5-dimethyl-3,6-dioxanonanoic acid	100mg	HFPO-TA	13252-14-7	9

Other PFAS

Product Number	Product Description	Pack Size	Abbreviation	CAS Number	Carbon Chain Length
DRE-CA15986555	1H,1H,2H-Perfluorocyclopentane	500mg	-	15290-77-4	5
DRE-A17846310AL-100	1,1,2-Trifluoro-2-(heptafluoropropoxy)ethene 100 µg/mL in Acetonitrile	1ml	-	1623-05-8	5
DRE-C15986990	Perfluoro-2-methyl-3-pentanone	100mg	-	756-13-8	6
DRE-C15986553	(Perfluorocyclohexyl)methanol	100mg	-	28788-68-3	7
DRE-C15115250	Perfluorooctanoic acid methyl ester	100mg	-	376-27-2	8
DRE-C15987155	Perfluorooctanoic acid-ethyl ester	100mg	-	3108-24-5	8
DRE-C15987172	(1H,1H,2H,2H-Perfluorooctyl)triethoxysilane	100mg	-	51851-37-7	8
DRE-CA15987100	Perfluorooctane	100mg	-	307-34-6	8
DRE-CA15987175	(1H,1H,2H,2H-Perfluorooctyl)trimethoxysilane	50mg	-	85857-16-5	8
DRE-C15986560	Perfluorodecanephosphonic acid	10mg	PFDPA	52299-26-0	10
DRE-C15986603	1H,1H,2H,2H-Perfluorodecyl acetate	100mg	8:2 FTOAc	37858-04-1	10
DRE-CA15986606	(1H,1H,2H,2H-Perfluorodecyl)triethoxysilane	100mg	-	101947-16-4	10
DRE-C10655193	Bis(perfluoromethanesulfonyl)imide lithium	100mg	-	90076-65-6	1/1
DRE-A15987500MB-1000	Perfluorotributylamine (PFTBA) 1000 µg/mL in Methyl-tert-butyl ether	1ml	PFTBA	311-89-7	4/4/4
DRE-C15987500	Perfluorotributylamine	100mg	PFTBA	311-89-7	4/4/4
DRE-C10655190	Bis(perfluorohexyl)phosphinic acid	25mg	6:6 PFPi	40143-77-9	6/6

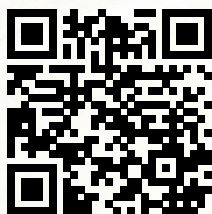
Matrix Materials

Due to their persistent nature, PFAS compounds bioaccumulate in various matrices, including water, soil, sediment, air, and biological matrices. The interaction between PFAS compounds and these matrices can complicate analyses. Therefore, the use of matrix materials plays a crucial role in understanding these effects. LGC offers a comprehensive range of matrix materials for PFAS testing, thanks to our partnerships with leading reference material producers.

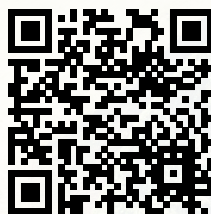
Part Number	Part Description
IRMM-427	Pike Perch - PFASs in fish tissue
IRMM-428	PFASs in Water
NIST-2781	Domestic Sludge
NMIA-MX019	PFAS in Soil
NIST-2585	Organic Contaminants in House Dust
NIST-1957	Organic Contaminants in Non-Fortified Human Serum (Freeze-Dried)
NIST-1958	Organic Contaminants in Fortified Human Serum (Freeze-Dried)
NIST-1950	Metabolites in Human Plasma
NIST-8690	PFAS in Aqueous Film-Forming Foams (AFFF) Formulation III
NIST-8691	PFAS in Aqueous Film-Forming Foams (AFFF) Formulation III
NIST-8692	PFAS in Aqueous Film-Forming Foams (AFFF) Formulation III
NIST-8693	PFAS in Aqueous Film-Forming Foams (AFFF) Formulation III
NIST-2586	Trace Elements in Soil Containing Lead From Paint
NMIJ CRM 8155-A	Perfluoroalkyl Substances in ABS Resin



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