Perfluoroalkylated substances (PFAS) reference materials

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PFAS — What you need to know

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

Two compounds – perfluorooctanoic Acid (PFOA) and perfluorooctane-sulphonic Acid (PFOS) – recently came under intense scrutiny by the Stockholm Convention on Persistent Organic Pollutants (POPs). 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 sulphonic Acid (PFHxS). This action followed hot on the heels of the U.S. Senate's PFAS Release Disclosure and Protection Act of 2019, which requires the regulation of PFAS in relation to safe drinking water and the 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).

PFAS have been in use since the 1950s, when manufacturers used them to produce cookware coatings, food packaging, firefighting foam and a wide range of textiles, clothing, and other household goods. Unfortunately, the same properties which lend PFAS their utility – hardiness, oil and water resistance – also make these compounds incredibly environmentally persistent, lending them the nickname 'forever chemicals'. This tenacity is largely a result of the carbon and fluorine bonds that make up PFAS molecules. Consequently, 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 of age.

The legal ramifications of the emerging PFAS problem are significant. To date, at least 700 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 reached an in-principle agreement with the Australian Department of Defence, securing a reported $212.5 million AUD for three communities affected by PFAS contamination linked to the use of PFAS compounds on army bases, fire stations, and industrial sites from the 1970s to the 2000s.

There are thousands of different types of PFAS compounds, all of them varying in terms of the degree to which they pose a threat to human, animal, and environmental health. Thus, the research and monitoring necessary to set standards on a case-by-case basis would be a lengthy and highly resource-intensive process. Instead, complementary and precautionary approaches to managing PFAS are being explored. Nevertheless, there exists a core group of more widely used compounds which dominate both the research and the wider conversation surrounding PFAS repercussions.

On the following pages you will find a selection of PFAS-related products, including both neat and single solutions. The EPA method tailored solutions improve the efficiency of your laboratory. Our Stable Isotopically Labelled products (SIL) offer a range of options to suit your testing needs.

Our comprehensive range of reference materials can always be explored on our website at **lgcstandards.com**

Perfluoroalkylated substances (PFAS) reference materials
Product listings

LGC offers a comprehensive range of reference materials for Perfluoroalkylated substances (PFAS) testing through our Dr. Ehrenstorfer portfolio and our preferred partners The National Institute of Standards and Technology (NIST), Cambridge Isotope Laboratories (CIL) and Joint Research Centre (JRC).

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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:

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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 neats, single and multicomponent solutions.

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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.

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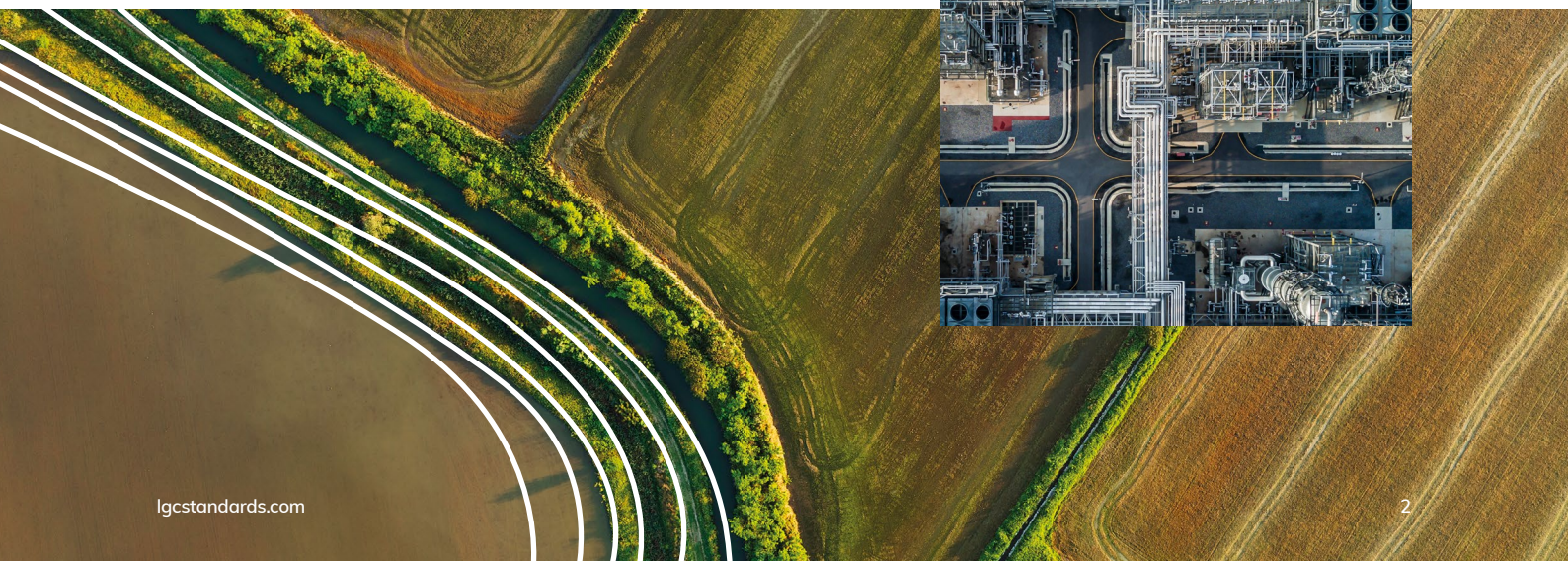
Dr. Ehrenstorfer is built upon more than 40 years of history in planning, developing, producing, analysing, packaging and delivering high quality reference materials to our customers around the world with speed and reliability. We are passionate about our work which supports you in your **science for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



Perfluoroalkylated substances (PFAS) reference materials
Dr. Ehrenstorfer

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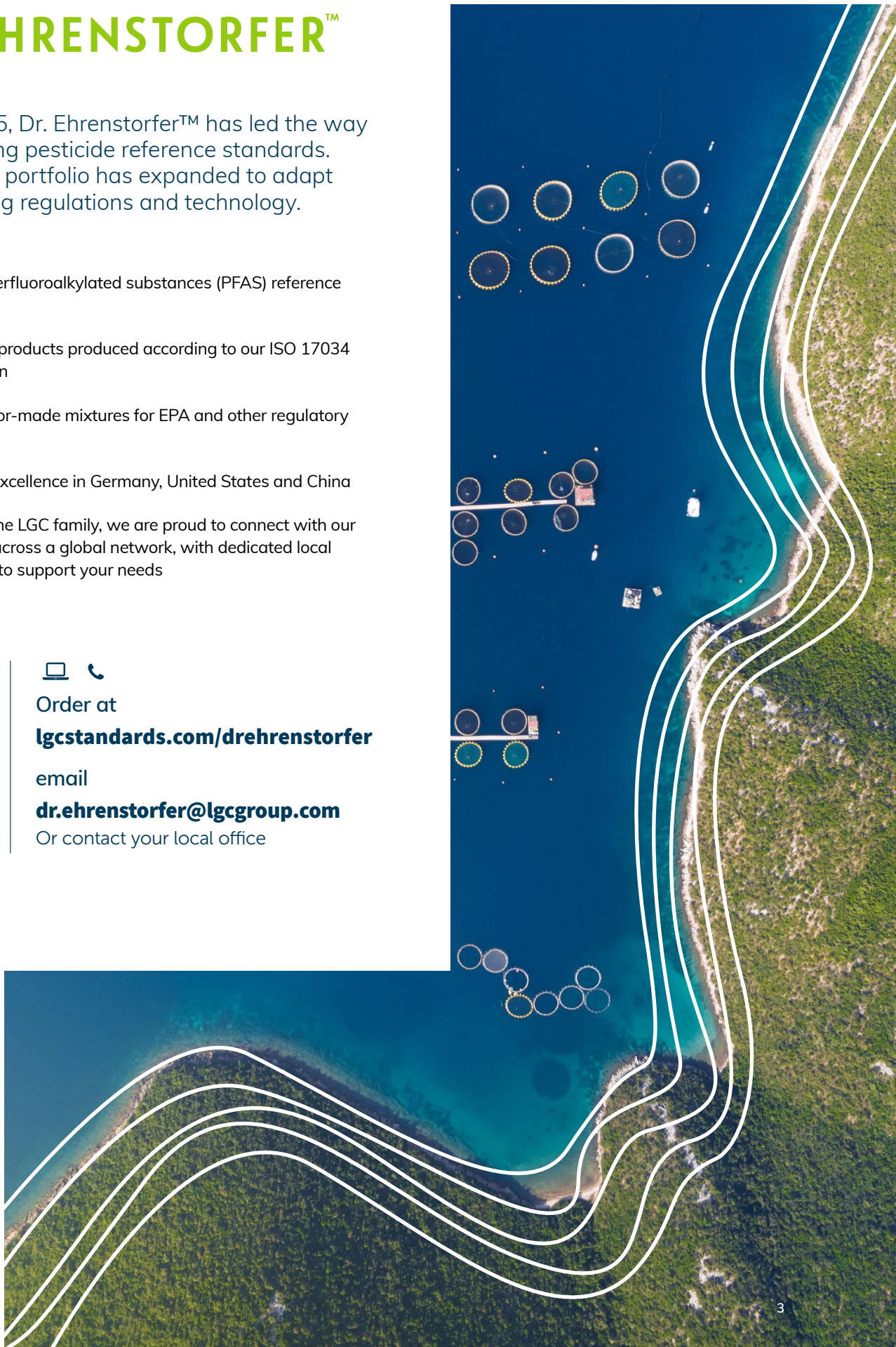

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Perfluorocarboxylic Acids (PFCA)

Perfluorocarboxylic Acids, also known as perfluorinated carboxylic 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 code	Product description	Analyte	Pack size	CAS number
DRE-C17844400	Trifluoroacetic Acid	Trifluoroacetic Acid	1 mL	76-05-1
CIL-ULM-11087-1.2	Trifluoroacetic Acid (TFA), sodium salt (unlabeled) 50 µg/mL in methanol	Trifluoroacetic Acid (TFA), sodium salt	1.2 mL	2923-18-4
CIL-CLM-11046-1.2	Trifluoroacetic Acid (TFA), sodium salt (13C2, 99%) 50 µg/mL in methanol	Trifluoroacetic Acid (TFA), sodium salt (13C2, 99%)	1.2 mL	N/A
DRE-C15986520	Perfluorobutanoic Acid	Perfluorobutanoic Acid	100 mg	375-22-4
DRE-A15986520AL-100	Perfluorobutanoic Acid 100 µg/mL in Acetonitrile	Perfluorobutanoic Acid	1 mL	375-22-4
CIL-ULM-11058-1.2	Perfluorobutyric Acid (PFBA), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluorobutyric Acid (PFBA) sodium salt	1.2 mL	2218-54-4
CIL-CLM-10883-1.2	Perfluorobutyric Acid (PFBA), sodium salt (2,3,4-13C3, 99%) 50 µg/mL in methanol	Perfluorobutyric Acid (PFBA), sodium salt (2,3,4-13C3, 99%)	1.2 mL	N/A
CIL-CLM-8173-1.2	Perfluorobutyric Acid (PFBA), sodium salt (13C4, 99%) 50 µg/mL in methanol	Perfluorobutyric Acid (PFBA), sodium salt (13C4, 99%)	1.2 mL	N/A
DRE-C15987200	Perfluoropentanoic Acid	Perfluoropentanoic Acid	100 mg	2706-90-3
DRE-A15987200MW-50	Perfluoro-n-pentanoic Acid 50 µg/mL in Methanol/Water	Perfluoropentanoic Acid	1 mL	2706-90-3
DRE-A15987200MW-100	Perfluoropentanoic Acid 100 µg/mL in Methanol/Water	Perfluoropentanoic Acid	1 mL	2706-90-3
CIL-ULM-10960-1.2	Perfluoropentanoic Acid (PFPeA), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluoropentanoic Acid Sodium Salt	1.2 mL	2706-89-0
CIL-CLM-10931-1.2	Perfluoropentanoic Acid (PFPeA), sodium salt (pentanoyl-13C5, 99%) 50 µg/mL in methanol	Perfluoropentanoic Acid, sodium salt (13C5, 99%)	1.2 mL	N/A
DRE-C15986910	Perfluorohexanoic Acid	Perfluorohexanoic Acid	100 mg	307-24-4
DRE-A15986910AL-100	Perfluorohexanoic Acid 100 µg/mL in Acetonitrile	Perfluorohexanoic Acid	1 mL	307-24-4
CIL-ULM-8342-1.2	Perfluorohexanoic Acid (PFHxA), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluorohexanoic Acid, sodium salt	1.2 mL	2923-26-4
CIL-CLM-8340-1.2	Perfluorohexanoic Acid (PFHxA), sodium salt (13C6, 99%) 50 µg/mL in methanol	Perfluorohexanoic Acid, sodium salt (13C6, 99%)	1.2 mL	N/A
DRE-C15986890	Perfluoroheptanoic Acid	Perfluoroheptanoic Acid	100 mg	375-85-9
DRE-A15986890MW-50	Perfluoro-n-heptanoic Acid 50 µg/mL in Methanol/Water	Perfluoroheptanoic Acid	1 mL	375-85-9
CIL-ULM-9516-1.2	Perfluoroheptanoic Acid (PFHpA) (unlabeled) 50 µg/mL in methanol	Perfluoroheptanoic Acid	1.2 mL	375-85-9
CIL-CLM-10624-1.2	Perfluoroheptanoic Acid (PFHpA), sodium salt (13C7, 99%) 50 µg/mL in methanol	Perfluoroheptanoic Acid, sodium salt (13C7, 99%)	1.2 mL	N/A
DRE-C15986892	7H-Perfluoroheptanoic Acid	7H-Perfluoroheptanoic Acid	100 mg	1546-95-8
DRE-A15986890MW-100	Perfluoroheptanoic Acid 100 µg/mL in Methanol/Water	Perfluoroheptanoic Acid	1 mL	375-85-9

Product code	Product description	Analyte	Pack size	CAS number
CIL-ULM-7451-1.2	Perfluorooctanoic Acid (PFOA) (unlabeled) 50 µg/mL in methanol	Perfluorooctanoic Acid	1.2 mL	335-67-1
CIL-CLM-8005-1.2	Perfluorooctanoic Acid (PFOA) (13C8, 99%) 50 µg/mL in methanol	Perfluorooctanoic Acid (13C8, 99%)	1.2 mL	1350614-84-4
DRE-C15987150	Perfluorooctanoic Acid	Perfluorooctanoic Acid	100 mg	335-67-1
DRE-C15987145	2H,2H-Perfluorooctanoic Acid	2H,2H-Perfluorooctanoic Acid	10 mg	53826-12-3
DRE-C15987152	Perfluorooctanoic Acid ammonium	Perfluorooctanoic Acid ammonium salt PFOA POAA	100 mg	3825-26-1
DRE-A15987150AL-100	Perfluorooctanoic Acid 100 µg/mL in Acetonitrile	Perfluorooctanoic Acid	1 mL	335-67-1
DRE-C15986608	Perfluoro(3,7-bis(trifluoromethyl))octanoic Acid	Perfluoro(3,7-bis(trifluoromethyl))octanoic Acid	100 mg	172155-07-6
DRE-C15987000	Perfluorononanoic Acid	Perfluorononanoic Acid	100 mg	375-95-1
DRE-A15987000AL-100	Perfluorononanoic Acid 100 µg/mL in Acetonitrile	Perfluorononanoic Acid	1 mL	375-95-1
CIL-ULM-8066-1.2	Perfluorononanoic Acid (PFNA) (unlabeled) 50 µg/mL in methanol	Perfluorononanoic Acid	1.2 mL	375-95-1
CIL-CLM-8060-1.2	Perfluorononanoic Acid (PFNA) (13C9, 99%) 50 µg/mL in methanol	Perfluorononanoic Acid (13C9, 99%)	1.2 mL	N/A
DRE-C15986600	Perfluorodecanoic Acid	Perfluorodecanoic Acid	100 mg	335-76-2
DRE-A15986600MW-50	Perfluoro-n-decanoic Acid 50 µg/mL in Methanol/Water	Perfluorodecanoic Acid	1 mL	335-76-2
CIL-ULM-11038-1.2	Perfluorodecanoic Acid (PFDA), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluorodecanoic Acid, sodium salt	1.2 mL	3830-45-3
CIL-CLM-8172-1.2	Perfluorodecanoic Acid (PFDA) (13C9, 99%) 50 µg/mL in methanol	Perfluorodecanoic Acid (13C9, 99%)	1.2 mL	N/A
DRE-C15989000	Perfluoroundecanoic Acid	Perfluoroundecanoic Acid	100 mg	2058-94-8
DRE-A15989000MW-50	Perfluoro-n-undecanoic Acid 50 µg/mL in Methanol/Water	Perfluoroundecanoic Acid	1 mL	2058-94-8
CIL-ULM-8084-1.2	Perfluoroundecanoic Acid (PFUA), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluoroundecanoic Acid, sodium salt	1.2 mL	60871-96-7
CIL-CLM-8789-1.2	Perfluoroundecanoic Acid (PFUA), sodium salt (13C9, 99%) 50 µg/mL in methanol	Perfluoroundecanoic Acid, sodium salt (13C9, 99%)	1.2 mL	N/A
DRE-C15989010	2H,2H,3H,3H-Perfluoroundecanoic Acid	2H,2H,3H,3H Perfluoroundecanoic Acid	50 mg	34598-33-9
DRE-C15986620	Perfluorododecanoic Acid	Perfluorododecanoic Acid	50 mg	307-55-1
CIL-ULM-10594-1.2	Perfluorododecanoic Acid (PFDoA), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluorododecanoic Acid sodium salt	1.2 mL	307-67-5
CIL-CLM-10593-1.2	Perfluorododecanoic Acid (PFDoA), sodium salt (13C12, 99%) 50 µg/mL in methanol	Perfluorododecanoic Acid, sodium salt (13C12, 99%)	1.2 mL	N/A
DRE-C15988000	Perfluorotridecanoic Acid	Perfluorotridecanoic Acid	100 mg	72629-94-8
CIL-ULM-9955-1.2	Perfluorotridecanoic Acid (PFTrDA) (unlabeled) 50 µg/mL in methanol	Perfluorotridecanoic Acid	1.2 mL	72629-94-8
DRE-C15987400	Perfluorotetradecanoic Acid	Perfluorotetradecanoic Acid	50 mg	376-06-7
CIL-ULM-9956-1.2	Perfluorotetradecanoic Acid (PFTeDA) (unlabeled) 50 µg/mL in methanol	Perfluorotetradecanoic Acid	1.2 mL	376-06-7
DRE-C15986895	Perfluorohexadecanoic Acid	Perfluorohexadecanoic Acid	50 mg	67905-19-5
CIL-ULM-10721-1.2	Perfluorohexadecanoic Acid (PFHxDA) (unlabeled) 50 µg/mL in methanol	Perfluorohexadecanoic Acid	1.2 mL	67905-19-5
DRE-C15987080	Perfluorooctadecanoic Acid	Perfluorooctadecanoic Acid	50 mg	16517-11-6
CIL-ULM-10722-1.2	Perfluorooctadecanoic Acid (PFODA) (unlabeled) 50 µg/mL in methanol	Perfluorooctadecanoic Acid	1.2 mL	16517-11-6

PFCA Multicomponent Solutions

Product code	Product description	Pack size	Number of analytes
CIL-ES-5587	Perfluoroalkylcarboxylic Acid (PFCA) C4-C14 Native Mixture	1.2 mL	11

Analyte	CAS number	Analyte concentration
Perfluorobutanoic Acid	375-22-4	2000 µg/mL
Perfluoropentanoic Acid	2706-90-3	2000 µg/mL
Perfluorohexanoic Acid sodium salt	2923-26-4	2000 µg/mL
Perfluoroheptanoic Acid	375-85-9	2000 µg/mL
Perfluorooctanoic Acid	335-67-1	2000 µg/mL
Perfluorononanoic Acid	375-95-1	2000 µg/mL
Perfluorodecanoic Acid	335-76-2	2000 µg/mL
Perfluoroundecanoic Acid sodium salt	60871-96-7	2000 µg/mL
Perfluorododecanoic Acid	307-55-1	2000 µg/mL
Perfluorotridecanoic Acid	72629-94-8	2000 µg/mL
Perfluorotetradecanoic Acid	376-06-7	2000 µg/mL

Perfluoroalkyl Sulphonates (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are a family of human-made chemicals that are found in a wide range of products used by consumers and industry. The widespread use of PFAS and their ability to remain intact in the environment means that over time PFAS levels from past and current uses can result in increasing levels of environmental contamination. Accumulation of certain PFAS has also been shown through blood tests to occur in humans and animals. While the science surrounding potential health effects of this bioaccumulation of certain PFAS is developing, evidence suggests it may cause serious health conditions.

Product code	Product description	Analyte	Pack size	CAS number
DRE-C15986515	Perfluorobutanesulfonic Acid	Perfluorobutanesulfonic Acid	100 mg	375-73-5
DRE-C15986517	Perfluorobutanesulfonic Acid potassium	Perfluorobutanesulfonic Acid, potassium salt	100 mg	29420-49-3
CIL-ULM-9521-1.2	Perfluorobutanesulfonate (PFBS), potassium salt (unlabeled) 50 µg/mL in methanol	Perfluorobutanesulfonic Acid, potassium salt	1.2 mL	29420-49-3
CIL-CLM-9523-1.2	Perfluorobutanesulfonate (PFBS), potassium salt (13C4, 99%) 50 µg/mL in methanol	Perfluorobutanesulfonate (PFBS), potassium salt (13C4, 99%)	Inquire	N/A
DRE-C15987190	Perfluoropentanesulfonic Acid	Perfluoropentanesulfonic Acid	25 mg	2706-91-4
DRE-A15987205MW-50	Perfluoropentanesulfonic Acid sodium 50 µg/mL in Methanol/Water	Perfluoropentanesulfonic Acid sodium salt	1 mL	630402-22-1
CIL-ULM-9520-1.2	Perfluoropentanesulfonate (PFPeS), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluoropentanesulfonic Acid, sodium salt	1.2 mL	630402-22-1
DRE-C15986900	Perfluorohexanesulfonic Acid	Perfluorohexanesulfonic Acid	50 mg	355-46-4
DRE-A15986900MW-50	Perfluorohexanesulfonic Acid 50 µg/mL in Methanol/Water	Perfluorohexanesulfonic Acid	1 mL	355-46-4
DRE-A15986900AL-100	Perfluorohexanesulfonic Acid 100 µg/mL in Acetonitrile	Perfluorohexanesulfonic Acid	1 mL	355-46-4
CIL-ULM-9524-1.2	Perfluorohexanesulfonate (PFHxS), potassium salt (unlabeled) mix of isomers 50 µg/mL in methanol	Perfluorohexanesulfonic Acid, potassium salt	1.2 mL	3871-99-6
CIL-CLM-9526-1.2	Perfluorohexanesulfonate (PFHxS), potassium salt (13C6, 99%) 50 µg/mL in methanol	Perfluorohexanesulfonate, potassium salt (13C6, 99%)	1.2 mL	N/A
DRE-C11041300	Capstone B; N-(carboxymethyl)-N,N-dimethyl-3-((((perfluorohexyl)ethyl)sulfonyl)amino)- hydroxide	N-(carboxymethyl)-N,N-dimethyl-3-((((perfluorohexyl)ethyl)sulfonyl)amino)-hydroxide	50 mg	34455-29-3
DRE-C15986880	Perfluoroheptanesulfonic Acid	Perfluoroheptanesulfonic Acid	50 mg	375-92-8
DRE-A15986880AL-100	Perfluoroheptanesulfonic Acid 100 µg/mL in Acetonitrile	Perfluoroheptanesulfonic Acid	1 mL	375-92-8
CIL-ULM-9531-1.2	Perfluoroheptanesulfonate (PFHpS), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluoroheptanesulfonic Acid, sodium salt	1.2 mL	21934-50-9
DRE-C15987120	Perfluorooctane sulfonic Acid	Perfluorooctane sulfonic Acid	10 mg	1763-23-1
DRE-C15987122	Perfluorooctane sulfonic Acid potassium	Perfluorooctane sulfonic Acid, potassium salt	100 mg	2795-39-3
DRE-C15987130	Perfluorooctane sulfonyl fluoride	Perfluorooctane sulfonyl fluoride	100 mg	307-35-7

Product code	Product description	Analyte	Pack size	CAS number
DRE-XA15987120ME	Perfluorooctane sulfonic Acid 100 µg/mL in Methanol	Perfluorooctane sulfonic Acid	1 mL	1763-23-1
CIL-ULM-9001-1.2	Perfluorooctanesulfonate (PFOS), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluorooctanesulfonate, sodium salt	1.2 mL	4021-47-0
CIL-ULM-10655-1.2	Perfluorooctanesulfonate (PFOS) (unlabeled) mix of isomers 50 µg/mL in methanol	Perfluorooctanesulfonate	1.2 mL	1763-23-1
CIL-CLM-8505-1.2	Perfluorooctanesulfonate (PFOS), sodium salt (13C8, 99%) 50 µg/mL in methanol	Perfluorooctanesulfonate, sodium salt (13C8, 99%)	1.2 mL	N/A
CIL-ULM-9530-1.2	Perfluorononanesulfonate (PFNS), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluorononanesulfonic Acid, sodium salt	1.2 mL	98789-57-2
CIL-ULM-9527-1.2	Perfluorodecanesulfonate (PFDS), sodium salt (unlabeled) 50 µg/mL in methanol	Perfluorodecanesulfonic Acid, sodium salt	1.2 mL	2806-15-7

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS1 Mixture in Methanol	5 x 0.25 mL	5

Analyte	CAS number	Analyte concentration
Perfluorooctanoic Acid	335-67-1	2 ng/mL
Perfluorooctane sulfonate, sodium salt	27619-94-9	2 ng/mL
Perfluorooctanoic Acid (13C8, 99%)	1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)	N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)	N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS2 Mixture in Methanol	5 x 0.25 mL	5

Analyte	CAS number	Analyte concentration
Perfluorooctanoic Acid	335-67-1	10 ng/mL
Perfluorooctane sulfonate, sodium salt	27619-94-9	10 ng/mL
Perfluorooctanoic Acid (13C8, 99%)	1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)	N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)	N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS3 Mixture in Methanol	5 x 0.25 mL	5

Analyte	CAS number	Analyte concentration
Perfluorooctanoic Acid	335-67-1	50 ng/mL
Perfluorooctane sulfonate, sodium salt	27619-94-9	50 ng/mL
Perfluorooctanoic Acid (13C8, 99%)	1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)	N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)	N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS4 Mixture in Methanol	5 x 0.25 mL	5
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctanoic Acid		335-67-1	200 ng/mL
Perfluorooctane sulfonate, sodium salt		27619-94-9	200 ng/mL
Perfluorooctanoic Acid (13C8, 99%)		1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)		N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)		N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS5 Mixture in Methanol	5 x 0.25 mL	5
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctanoic Acid		335-67-1	1000 ng/mL
Perfluorooctane sulfonate, sodium salt		27619-94-9	1000 ng/mL
Perfluorooctanoic Acid (13C8, 99%)		1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)		N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)		N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5571	PFOS/PFOA Extraction Standard Mixture	3 mL	2
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctane sulfonic Acid (13C8, 99%)		N/A	2000 ng/mL
Perfluorooctanoic Acid (13C8, 99%)		1350614-84-4	2000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5572	PFOS/PFOA Injection Standard Mixture	1.2 mL	1
Analyte		**CAS number**	**Analyte concentration**
Perfluorononanoic Acid (13C9, 99%)		N/A	2000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5573	PFOS/PFOA Native Standard Mixture	1.2 mL	2
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctane sulfonic Acid		1763-23-1	5000 ng/mL
Perfluorooctanoic Acid		335-67-1	5000 ng/mL

Fluoropolymers Sulfonates (FTS)

Fluoropolymers are fluorocarbon-based polymers with multiple carbon-fluorine bonds. They are characterised by a high resistance to solvents, Acids, and bases. Perhaps the best known fluoropolymer is polytetrafluoroethylene (PTFE), otherwise known as Teflon. Generally speaking, fluoropolymers are of low concern when it comes to human health, although polymer fume fever, a rare disease caused by inhalation of thermal degradation products, can be dangerous.

Product code	Product description	Analyte	Pack size	CAS number
CIL-ULM-10757-1.2	1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt (unlabeled) 50 µg/mL in methanol	1H,1H,2H,2H-Perfluorohexanesulfonate, sodium salt	1.2 mL	N/A
CIL-CDLM-10753-1.2	1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt (13C2, 99%; D4, 98%) 50 µg/mL in methanol	1H,1H,2H,2H-Perfluorohexanesulfonate, sodium salt (13C2, 99%;D4, 98%)	1.2 mL	N/A
DRE-C15987125	1H,1H,2H,2H-Perfluorooctane sulfonic Acid	1H,1H,2H,2H Perfluoro-octanesulfonic Acid	10 mg	27619-97-2
CIL-ULM-10756-1.2	1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt (unlabeled) 50 µg/mL in methanol	1H,1H,2H,2H-Perfluorooctane sulfonic Acid, sodium salt	1.2 mL	27619-94-9
CIL-CDLM-10752-1.2	1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt (13C2, 99%; D4, 98%) 50 µg/mL in methanol	1H,1H,2H,2H Perfluoro-octanesulfonic Acid, sodium salt (1,2-13C2; 1,1,2,2-D4)	1.2 mL	N/A
DRE-C15986585	1H,1H,2H,2H-Perfluorodecanesulfonic Acid	1H,1H,2H,2H Perfluorodecane-sulfonic Acid	25 mg	39108-34-4
CIL-ULM-10 755-1.2	1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt (unlabeled) 50 µg/mL in methanol	1H,1H,2H,2H-Perfluorodecane-sulfonate, (8:2 FTS), sodium salt	1.2 mL	27619-96-1
CIL-CDLM-10751-1.2	1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt (13C2, 99%; D4, 98%) 50 µg/mL in methanol	1H,1H,2H,2H Perfluorodecane-sulfonic Acid sodium salt (1,2-13C2; 1,1,2,2-D4)	1.2 mL	N/A
CIL-ULM-10754-1.2	1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt (unlabeled) 50 µg/mL in methanol	1H,1H,2H,2H Perfluorododecane-sulfonic Acid, sodium salt	1.2 mL	N/A
CIL-CDLM-10750-1.2	1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt (13C2, 99%; D4, 98%) 50 µg/mL in methanol	1H,1H,2H,2H Perfluorododecane-sulfonic Acid, sodium salt (1,2-13C2; 1,1,2,2-D4)	1.2 mL	N/A

Fluorotelomer Alcohols (FTOH)

Volatile precursors to the 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 code	Product description	Analyte	Pack size	CAS number
DRE-C15986540	1H,1H-Perfluorobutanol	1H,1H-Perfluorobutanol	100 mg	375-01-9
DRE-C15986915	1H,1H,2H,2H-Perfluoro-1-hexanol	1H,1H,2H,2H-Perfluoro-1-hexanol	100 mg	2043-47-2
DRE-C15986913	1H,1H-Perfluorohexanol	1H,1H-Perfluorohexanol	50 mg	423-46-1
CIL-ULM-10723-1.2	1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH) (unlabeled) 100 µg/mL in methanol	1H,1H,2H,2H-Perfluoro-1-hexanol	1.2 mL	2043-47-2
DRE-C15987160	1H,1H,2H,2H-Perfluoro-1-octanol	1H,1H,2H,2H-Perfluoro-1-octanol	100 mg	647-42-7
CIL-ULM-10724-1.2	1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH) (unlabeled) 100 µg/mL in methanol	1H,1H,2H,2H-Perfluoro-1-octanol	1.2 mL	647-42-7
DRE-C15986601	1H,1H,2H,2H-Perfluoro-1-decanol	1H,1H,2H,2H-Perfluoro-1-decanol	100 mg	678-39-7
CIL-ULM-10727-1.2	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH) (unlabeled) 100 µg/mL in methanol	1H,1H,2H,2H-Perfluoro-1-decanol	1.2 mL	678-39-7
DRE-C16986625	1H,1H,2H,2H-Perfluoro-1-dodecanol	1H,1H,2H,2H-Perfluoro-1-dodecanol	100 mg	865-86-1
CIL-ULM-11175-1.2	1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH) (unlabeled) 50 µg/mL in methanol	1H,1H,2H,2H-Perfluoro-1-dodecanol	1.2 mL	865-86-1

Perfluorooctane Sulfonamides (FOSA)

Perfluorooctane sulfonamides acid is a monocarboxylic Acid that is (sulphonamino)acetic Acid substituted by a heptadecafluorooctyl group at the sulphur atom. It is an organofluorine compound, a sulphonamide, and a monocarboxylic Acid, derivable from perfluorooctanesulphonamide (FOSA). It is an environmental contaminant and a xenobiotic.

Product code	Product description	Analyte	Pack size	CAS number
CIL-ULM-11129-1.2	Perfluorobutanesulfonamide (PFBSA) (unlabeled) 50 µg/mL in methanol	Perfluorobutane Sulfonamide	Inquire	30334-69-1
CIL-ULM-11130-1.2	Perfluorohexanesulfonamide (PFHxSA) (unlabeled) 50 µg/mL in methanol	Perfluorohexane Sulfonamide	Inquire	41997-13-1
DRE-C15987110	Perfluorooctane sulfonamide	Perfluorooctane sulfonamide PFOSA	100 mg	754-91-6
CIL-ULM-10977-1.2	Perfluorooctanesulfonamide (PFOSA) (unlabeled) 50 µg/mL in methanol	Perfluorooctane sulfonamide PFOSA	1.2 mL	754-91-6
CIL-CLM-11007-1.2	Perfluorooctanesulfonamide (PFOSA) (13C8, 99%) 50 µg/mL in methanol	Perfluorooctanesulfonamide (PFOSA) (13C8, 99%)	Inquire	N/A
DRE-C15115500	N-Methylperfluorooctanesulfonamide	N-Methylperfluoro-octanesulfonamide	50 mg	31506-32-8
DRE-C14231570	N-(2-Hydroxyethyl)-N-methylperfluorooctanesulfonamide	N-(2-Hydroxyethyl)-N-methylperfluoro-octanesulfonamide	25 mg	24448-09-7
CIL-ULM-10779-1.2	N-Methylperfluorooctanesulfonamide (N-MeFOSA) (unlabeled) 100 µg/mL in methanol	N-Methylperfluoro-octanesulfonamide	1.2 mL	31506-32-8
CIL-DLM-10740-1.2	N-Methylperfluorooctanesulfonamide (N-MeFOSA) (D3, 98%) 100 µg/mL in methanol	N-methylperfluoroctane-sulfonamide (D3, 98%)	1.2 mL	N/A
CIL-ULM-10780-1.2	N-Ethylperfluorooctanesulfonamide (N-EtFOSA) (unlabeled) 100 µg/mL in methanol	N-Ethylperfluoro-octanesulfonamide	1.2 mL	4151-50-2
CIL-DLM-10741-1.2	N-Ethylperfluorooctanesulfonamide (N-EtFOSA) (D5, 98%) 100 µg/mL in methanol	N-Ethylperfluoro-octanesulfonamide (D5, 98%)	1.2 mL	936109-40-9

Perfluorooctane Sulphonamido Ethanols (FOSE)

Perfluorooctane sulphonamido ethanol is a precursor of perfluoroctonae sulphonate (PFOS), which can be biodegraded in soil and biotransformed in earthworms to several metabolites, including n-ethylperfluorooctane sulphonamide acetate (N-EtFOSAA), perfluorooctane sulphonamide acetate (FOSAA), perfluorooctane sulphonamide (FOSA) and PFOS.

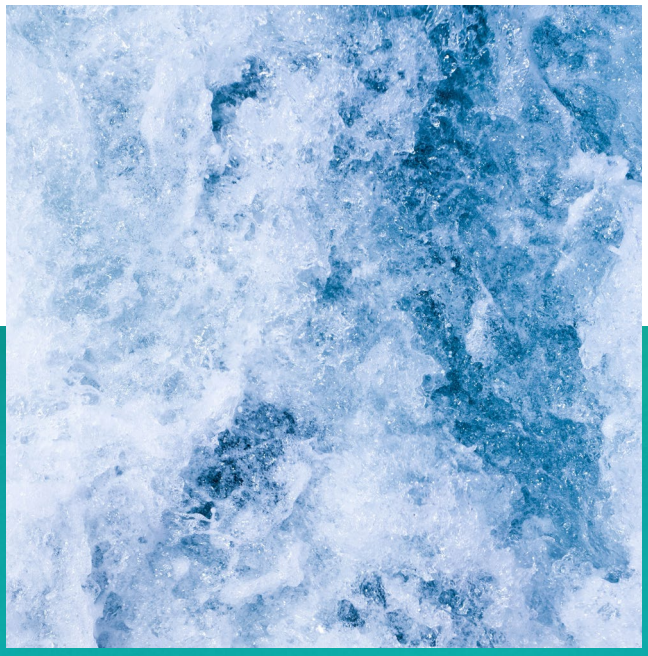
Product code	Product description	Analyte	Pack size	CAS number
DRE-C13342360	N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide	N-Ethyl-N-(2-hydroxyethyl)-perfluorooctylsulfonamide	50 mg	1691-99-2
CIL-ULM-11034-1.2	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE) (unlabeled) (mixed isomers) 50 µg/mL in methanol	N-(2-Hydroxyethyl)-N-methylp-erfluorooctanesulfonamide	1.2 mL	24448-09-7
CIL-DLM-11035-1.2	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE) (N-methyl-D3, 98%) 50 µg/mL in methanol	N-Methylperfluorooctane-sulfonamidoethanol (N-MeFOSE) (N-methyl-D3, 98%)	1.2 mL	N/A
CIL-ULM-11036-1.2	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE) (unlabeled) (mixed isomers) 50 µg/mL in methanol	N-Ethylperfluorooctane-sulfonamidoethanol	1.2 mL	1691-99-2
CIL-DLM-11037-1.2	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE) (N-ethyl-D5, 98%) 50 µg/mL in methanol	N-Ethylperfluorooctane-sulfonamidoethanol (N-EtFOSE) (N-ethyl-D5, 98%)	1.2 mL	N/A
CIL-ULM-10656-1.2	N-Methylperfluorooctanesulfonamidoacetic Acid (N-MeFOSAA) (unlabeled) mix of isomers 50 µg/mL in methanol	2-(N-Methylperfluoro-octanesulfonamido)acetic Acid	1.2 mL	2355-31-9
CIL-DLM-10663-1.2	N-Methylperfluorooctanesulfonamidoacetic Acid (N-MeFOSAA) (N-methyl-D3, 98%) 50 µg/mL in methanol	2-(N-Methylperfluoro-octanesulfonamido)acetic Acid D3 (N-methyl D3)	1.2 mL	1400690-70-1
CIL-ULM-10657-1.2	N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA) (unlabeled) mix of isomers 50 µg/mL in methanol	2-(N-Ethylperfluoro-octanesulfonamido)acetic Acid	1.2 mL	2991-50-6
CIL-DLM-10664-1.2	N-Ethylperfluorooctanesulfonamidoacetic Acid (N-EtFOSAA) (N-ethyl-D5, 98%) 50 µg/mL in methanol	2-(N-Ethylperfluoro-octanesulfonamido)acetic Acid-D5	1.2 mL	N/A

Fluoropolymers

Product code	Product description	Analyte	Pack size	CAS number
DRE-C15986970	Perfluoro-3-methoxypropanoic Acid	Perfluoro-3-methoxypropanoic Acid (PFMOPrA)	50 mg	377-73-1
CIL-ULM-10738-1.2	Perfluoro-3-methoxypropanoic Acid (PFMPA) (unlabeled) 100 µg/mL in methanol	Perfluoro-3-methoxypropanoic Acid (PFMOPrA)	1.2 mL	377-73-1
DRE-C15986950	Perfluoro-4-methoxybutanoic Acid	Perfluoro-4-methoxybutanoic Acid (PFMOBA)	25 mg	863090-89-5
CIL-ULM-10739-1.2	Perfluoro-4-methoxybutanoic Acid (PFMBA) (unlabeled) 50 µg/mL in methanol	Perfluoro-4-methoxybutanoic Acid (PFMBA)	Inquire	863090-89-5
DRE-C15986990	Perfluoro-2-methyl-3-pentanone	Perfluoro-2-methyl-3-pentanone	100 mg	756-13-8
CIL-ULM-11128-1.2	Perfluoro(2-ethoxyethane) sulfonic Acid (PFEESA) (unlabeled) 50 µg/mL in methanol	Perfluoro(2-ethoxyethane) sulfonic Acid (PFEESA)	Inquire	113507-82-7
CIL-ULM-10734-1.2	Perfluoro-3,6-dioxaheptanoic Acid (PFDHA) (unlabeled) 100 µg/mL in methanol	Perfluoro-3,6-dioxaheptanoic Acid (PFDHA)	1.2 mL	151772-58-6
DRE-C15987250	Perfluoro-2-propoxypropanoic Acid	Perfluoro-2-propoxypropanoic Acid (PFPrOPrA)	50 mg	13252-13-6
CIL-ULM-10728-1.2	"GenX" (tetrafluoro-2-(heptafluoropropoxy)propanoic Acid) (HFPO-DA) (unlabeled) 100 µg/mL in methanol	Perfluoro-2-propoxypropanoic Acid (PFPrOPrA)	1.2 mL	13252-13-6
CIL-ULM-10968-1.2	Dodecafluoro-3H-4,8-dioxanonanoic Acid, sodium salt (NaDONA) (unlabeled) 100 µg/mL in methanol	Dodecafluoro-3H-4,8-dioxanonanoic Acid, sodium salt (NaDONA)	Inquire	N/A
CIL-ULM-10843-1.2	9-Chlorohexadecafluoro-3-oxanone-1-sulfonic Acid, potassium salt (9Cl-PF3ONS) (F53BMAJ) (unlabeled) 100 µg/mL in methanol	9-Chloro-perfluoro-3-oxanonanesulfonic Acid, potassium salt	1.2 mL	73606-19-6
CIL-ULM-10844-1.2	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid, potassium salt (11Cl-PF3OUdS) (F53BMIN) (unlabeled) 100 µg/mL in methanol	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid, potassium salt	1.2 mL	83329-89-9
CIL-ULM-11073-1.2	Bis(1H,1H,2H,2H-perfluorodecyl) phosphate (8:2-DiPAP) (unlabeled) CP 94% 50 µg/mL in methanol	Bis(1H,1H,2H,2H-Perfluorodecyl) phosphate	1.2 mL	678-41-1

Perfluoroalkyl Acrylates

Product code	Product description	Analyte	Pack size	CAS number
DRE-C15987170	1H,1H,2H,2H-Perfluorooctyl acrylate	1H,1H,2H,2H Perfluorooctyl acrylate	100 mg	17527-29-6
DRE-C15986602	1H,1H,2H,2H-Perfluorodecyl acrylate	1H,1H,2H,2H Perfluorodecyl acrylate	100 mg	27905-45-9
DRE-C15986630	1H,1H,2H,2H-Perfluorododecyl acrylate	1H,1H,2H,2H-Perfluorododecyl acrylate	50 mg	17741-60-5



EPA Method 537 Multicomponent Solutions

For the determination of selected perfluorinated alkyl Acids (PFCS) in drinking water by SPE and LC/MS/MS

The 1996 amendments to the Safe Drinking Water Act (SDWA) required the EPA to establish a Contaminant Candidate List (CCL) containing a list of drinking water contaminants that the EPA will consider for future regulation. EPA Method 537 is a drinking water method for 14 perfluorinated alkyl compounds (PFCs) using solid phase extraction and liquid chromatography/tandem mass spectrometry (LC/MS/MS). EPA 537 should not be used for any sample matrix other than drinking water, and, as with most EPA drinking water methods, EPA 537 is prescriptive – the only allowable modifications are mentioned in the method.

Product code	Product description	Pack size	Number of analytes
CIL-ES-5609	Method 537 PFC Native Analyte Mixture 2000-8000 ng/mL in methanol	1.2 mL	14

Analyte	CAS number	Analyte concentration
Perfluorobutanesulfonic Acid potassium salt	29420-49-3	2000 ng/mL
Perfluorohexanesulfonic Acid potassium salt (mix of isomers)	N/A	2000 ng/mL
Perfluorohexanoic Acid	307-24-4	2000 ng/mL
Perfluoroheptanoic Acid	375-85-9	2000 ng/mL
Perfluorooctanesulfonic Acid (mix of isomers)	N/A	2000 ng/mL
Perfluorooctanoic Acid	335-67-1	2000 ng/mL
Perfluorononanoic Acid	375-95-1	2000 ng/mL
Perfluorodecanoic Acid	335-76-2	2000 ng/mL
Perfluoroundecanoic Acid	2058-94-8	2000 ng/mL
Perfluorododecanoic Acid	307-55-1	2000 ng/mL
Perfluorotridecanoic Acid	72629-94-8	2000 ng/mL
Perfluorotetradecanoic Acid	376-06-7	2000 ng/mL
N-Methylperfluorooctanesulfonamidoacetic Acid (mix of isomers)	N/A	8000 ng/mL
N-Ethylperfluorooctanesulfonamidoacetic Acid (mix of isomers)	N/A	8000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5610	Method 537 PFC Internal Standard Mixture (13C; D) 1000-4000 ng/mL in methanol	1.2 mL	3

Analyte	CAS number	Analyte concentration
Perfluorooctanoic Acid (13C8, 99%)	1350614-84-4	1000 ng/mL
Sodium Perfluorooctanesulfonate (13C8, 99%)	N/A	3000 ng/mL
2-(N-Methylperfluorooctanesulfonamido)acetic Acid (N-methyl-D3, 98%)	1400690-70-1	4000 ng/mL

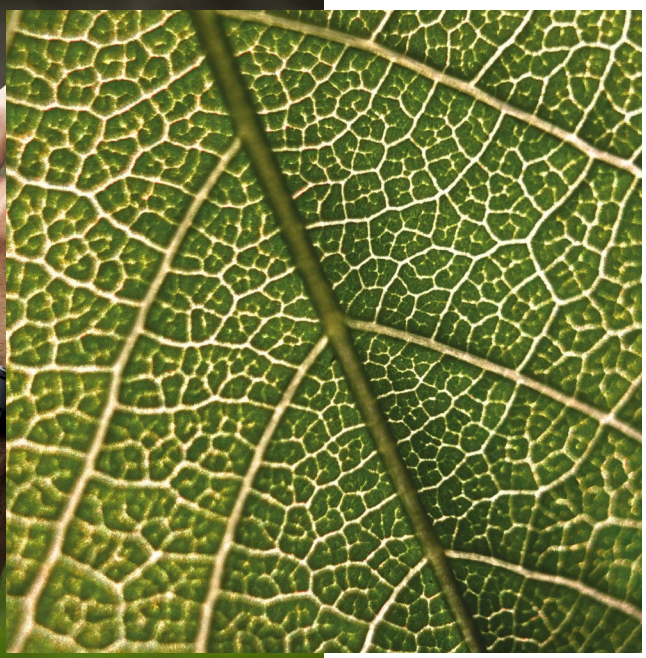
Product code	Product description	Pack size	Number of analytes
CIL-ES-5611	Method 537 PFC Surrogate Standard Mixture (13C; D) 1000-4000 ng/mL in methanol	1.2 mL	3
Analyte		**CAS number**	**Analyte concentration**
Perfluorohexanoic Acid sodium salt (13C6, 99%)		N/A	1000 ng/mL
Perfluorodecanoic Acid (2,3,4,5,6,7,8,9,10-13C9, 99%)		N/A	1000 ng/mL
2-(N-Ethylperfluorooctanesulfonamido)acetic Acid-(D5, 98%)		N/A	4000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5610-A	Method 537.1 Internal Standard Primary Dilution Standard (ISPDS) Mixture 1000-4000 ng/mL in methanol	Inquire	3
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctanoic Acid (13C8, 99%)		1350614-84-4	1000 ng/mL
Sodium Perfluorooctanesulfonate (13C8, 99%)		N/A	3000 ng/mL
2-(N-Methylperfluorooctanesulfonamido)acetic Acid		2355-31-9	4000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5631	Method 537.1 Analyte Primary Dilution Standard (PDS) Mixture 2000 ng/mL in methanol	1.2 mL	18
Analyte		**CAS number**	**Analyte concentration**
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid potassium		83329-89-9	2000 ng/mL
N-Ethylperfluorooctanesulfonamidoacetic Acid (mix of isomers)		N/A	2000 ng/mL
N-Methylperfluorooctanesulfonamidoacetic Acid (mix of isomers)		N/A	2000 ng/mL
Perfluorobutanesulfonic Acid, potassium salt		29420-49-3	2000 ng/mL
Perfluorodecanoic Acid, sodium salt		N/A	2000 ng/mL
Perfluorododecanoic Acid, sodium salt		307-67-5	2000 ng/mL
Perfluoroheptanoic Acid		375-85-9	2000 ng/mL
Perfluorohexanoic Acid, sodium salt		2923-26-4	2000 ng/mL
Perfluorononanoic Acid		375-95-1	2000 ng/mL
Perfluorooctane sulfonic Acid		1763-23-1	2000 ng/mL
Perfluorooctanoic Acid		335-67-1	2000 ng/mL
Perfluorotetradecanoic Acid		376-06-7	2000 ng/mL
Perfluorotridecanoic Acid		72629-94-8	2000 ng/mL
Perfluoroundecanoic Acid, sodium salt		60871-96-7	2000 ng/mL
Sodium Perfluorohexanesulfonate		82382-12-5	2000 ng/mL
Perfluorotetradecanoic Acid		376-06-7	2000 ng/mL
N-Methylperfluorooctanesulfonamidoacetic Acid (mixed isomers)		N/A	2000 ng/mL
N-Ethylperfluorooctanesulfonamidoacetic Acid (mixed isomers)		N/A	2000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5632	Method 537.1 Surrogate Primary Dilution Standard (SUR PDS) Mixture 1000-4000 ng/mL in methanol	Inquire	4

Analyte	CAS number	Analyte concentration
Tetrafluoro-2-(heptafluoropropoxy)propanoic Acid (13C3, 99%)	N/A	1000 ng/mL
Perfluorohexanoic Acid, sodium salt (13C6, 99%)	N/A	1000 ng/mL
Perfluorodecanoic Acid (13C9, 99%)	N/A	1000 ng/mL
N-Ethylperfluorooctanesulfonamidoacetic Acid (N-ethyl-D5, 98%)	N/A	4000 ng/mL



Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS1 Mixture in Methanol	5 x 0.25 mL	5

Analyte	CAS number	Analyte concentration
Perfluorooctanoic Acid	335-67-1	2 ng/mL
Perfluorooctane sulfonate, sodium salt	27619-94-9	2 ng/mL
Perfluorooctanoic Acid (13C8, 99%)	1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)	N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)	N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS2 Mixture in Methanol	5 x 0.25 mL	5

Analyte	CAS number	Analyte concentration
Perfluorooctanoic Acid	335-67-1	10 ng/mL
Perfluorooctane sulfonate, sodium salt	27619-94-9	10 ng/mL
Perfluorooctanoic Acid (13C8, 99%)	1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)	N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)	N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS3 Mixture in Methanol	5 x 0.25 mL	5

Analyte	CAS number	Analyte concentration
Perfluorooctanoic Acid	335-67-1	50 ng/mL
Perfluorooctane sulfonate, sodium salt	27619-94-9	50 ng/mL
Perfluorooctanoic Acid (13C8, 99%)	1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)	N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)	N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS4 Mixture in Methanol	5 x 0.25 mL	5
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctanoic Acid		335-67-1	200 ng/mL
Perfluorooctane sulfonate, sodium salt		27619-94-9	200 ng/mL
Perfluorooctanoic Acid (13C8, 99%)		1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)		N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)		N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5570	PFOS/PFOA Calibration Series CS5 Mixture in Methanol	5 x 0.25 mL	5
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctanoic Acid		335-67-1	1000 ng/mL
Perfluorooctane sulfonate, sodium salt		27619-94-9	1000 ng/mL
Perfluorooctanoic Acid (13C8, 99%)		1350614-84-4	50 ng/mL
Perfluorooctane sulfonate, sodium salt (13C8, 99%)		N/A	50 ng/mL
Perfluorononanoic Acid (13C9, 99%)		N/A	50 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5571	PFOS/PFOA Extraction Standard Mixture	3 mL	2
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctane sulfonic Acid (13C8, 99%)		N/A	2000 ng/mL
Perfluorooctanoic Acid (13C8, 99%)		1350614-84-4	2000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5572	PFOS/PFOA Injection Standard Mixture	1.2 mL	1
Analyte		**CAS number**	**Analyte concentration**
Perfluorononanoic Acid (13C9, 99%)		N/A	2000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5573	PFOS/PFOA Native Standard Mixture	1.2 mL	2
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctane sulfonic Acid		1763-23-1	5000 ng/mL
Perfluorooctanoic Acid		335-67-1	5000 ng/mL

PFAS Multicomponent Solutions

Product code	Product description	Pack size	Number of analytes
DRE-A50000152MW	EPA Method 537.1 PFAS Mixture 152 100 µg/mL in Methanol:Water	1 mL	18
Analyte		**CAS number**	**Analyte concentration**
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid potassium		83329-89-9	100 µg/mL
2-(N-Ethylperfluorooctanesulfonamido)acetic Acid		2991-50-6	100 µg/mL
2-(N-Methylperfluorooctanesulfonamido)acetic Acid		2355-31-9	100 µg/mL
3H-Perfluoro-4,8-dioxanonanoic Acid		919005-14-4	100 µg/mL
9-Chloro-perfluoro-3-oxanonanesulfonic Acid potassium		73606-19-6	100 µg/mL
Perfluoro-2-propoxypropanoic Acid (PFPrOPrA)		13252-13-6	100 µg/mL
Perfluorobutanesulfonic Acid		375-73-5	100 µg/mL
Perfluorodecanoic Acid		335-76-2	100 µg/mL
Perfluorododecanoic Acid		307-55-1	100 µg/mL
Perfluoroheptanoic Acid		375-85-9	100 µg/mL
Perfluorohexanesulfonic Acid		355-46-4	100 µg/mL
Perfluorohexanoic Acid		307-24-4	100 µg/mL
Perfluorononanoic Acid		375-95-1	100 µg/mL
Perfluorooctane sulfonic Acid		1763-23-1	100 µg/mL
Perfluorooctanoic Acid		335-67-1	100 µg/mL
Perfluorotetradecanoic Acid		376-06-7	100 µg/mL
Perfluorotridecanoic Acid		72629-94-8	100 µg/mL
Perfluoroundecanoic Acid		2058-94-8	100 µg/mL

Product code	Product description	Pack size	Number of analytes
DRE-A50000647MW	PFASi Mix 100 µg/mL in Methanol:Water	1 mL	27

Analyte	CAS number	Analyte concentration
Perfluorobutanesulfonic Acid	375-73-5	100 µg/mL
Perfluoropentanesulfonic Acid	2706-91-4	100 µg/mL
Perfluorohexanesulfonic Acid	355-46-4	100 µg/mL
Perfluoroheptanesulfonic Acid	375-92-8	100 µg/mL
Perfluorooctane sulfonic Acid	1763-23-1	100 µg/mL
Perfluoro(2-ethoxyethane) sulfonic Acid	113507-82-7	100 µg/mL
Perfluorobutanoic Acid	375-22-4	100 µg/mL
Perfluoropentanoic Acid	2706-90-3	100 µg/mL
Perfluorohexanoic Acid	307-24-4	100 µg/mL
Perfluoroheptanoic Acid	375-85-9	100 µg/mL
Perfluorooctanoic Acid	335-67-1	100 µg/mL
Perfluorononanoic Acid	375-95-1	100 µg/mL
Perfluorodecanoic Acid	335-76-2	100 µg/mL
Perfluoroundecanoic Acid	2058-94-8	100 µg/mL
3H-Perfluoro-4,8-dioxanonanoic Acid	919005-14-4	100 µg/mL
Perfluorododecanoic Acid	307-55-1	100 µg/mL
Perfluorotridecanoic Acid	72629-94-8	100 µg/mL
Perfluorotetradecanoic Acid	376-06-7	100 µg/mL
Perfluoro-3,6-dioxaheptanoic Acid	151772-58-6	100 µg/mL
Perfluoro-4-methoxybutanoic Acid (PFMOBA)	863090-89-5	100 µg/mL
Perfluoro-3-methoxypropanoic Aid (PFMOPrA)	377-73-1	100 µg/mL
Perfluoro-2-propoxypropanoic Acid (PFPrOPrA)	13252-13-6	100 µg/mL
2-(N-Methylperfluorooctanesulfonamido)acetic Acid	2355-31-9	100 µg/mL
2-(N-Ethylperfluorooctanesulfonamido)acetic Acid	2991-50-6	100 µg/mL
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	757124-72-4	100 µg/mL
1H,1H,2H,2H-Perfluorooctane sulfonic Acid	27619-97-2	100 µg/mL
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	39108-34-4	100 µg/mL

Product code	Product description	Pack size	Number of analytes
DRE-GS09000218MW	PFAA Mixture 218 100 µg/mL in Methanol:Water 96%:4%	5 x 1 mL	11

Analyte	CAS number	Analyte concentration
Perfluorobutanesulfonic Acid	375-73-5	100 µg/mL
Perfluorohexanoic Acid	307-24-4	100 µg/mL
Perfluoroheptanoic Acid	375-85-9	100 µg/mL
Perfluorooctane Sulfonic Acid	1763-23-1	100 µg/mL
Perfluorooctanoic Acid	335-67-1	100 µg/mL
Perfluorononanoic Acid	375-95-1	100 µg/mL
Perfluorodecanoic Acid	335-76-2	100 µg/mL
Perfluoroundecanoic Acid	2058-94-8	100 µg/mL
Perfluorododecanoic Acid	307-55-1	100 µg/mL
Perfluorotridecanoic Acid	72629-94-8	100 µg/mL
Perfluorotetradecanoic Acid	376-06-7	100 µg/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5636	PFAS EF-28 Native Mixture 1000 ng/mL in methanol	1.2 mL	28

Analyte	CAS number	Analyte concentration
1,1,2,2H-Perfluorodecanesulfonic Acid, sodium salt	27619-96-1	1000 ng/mL
1H,1H,2H,2H-Perfluorododecane sulfonic Acid sodium	108026-35-3	1000 ng/mL
1H,1H,2H,2H-Perfluorohexanesulfonic Acid sodium	27619-93-8	1000 ng/mL
1H,1H,2H,2H-Perfluorooctane sulfonic Acid sodium	27619-94-9	1000 ng/mL
2-(N-Ethylperfluorooctanesulfonamido)acetic Acid	2991-50-6	1000 ng/mL
2-(N-Methylperfluorooctanesulfonamido)acetic Acid	2355-31-9	1000 ng/mL
Bis(1H,1H,2H,2H-Perfluorodecyl) phosphate	678-41-1	1000 ng/mL
N-Methylperfluorooctanesulfonamide	31506-32-8	1000 ng/mL
Perfluorobutanesulfonic Acid, potassium salt	29420-49-3	1000 ng/mL
Perfluorobutanoic Acid	375-22-4	1000 ng/mL
Perfluorodecanesulfonic Acid, sodium salt	2806-15-7	1000 ng/mL
Perfluorodecanoic Acid	335-76-2	1000 ng/mL
Perfluorododecanoic Acid, sodium salt	307-67-5	1000 ng/mL
Perfluoroheptanesulfonic Acid, sodium salt	21934-50-9	1000 ng/mL
Perfluoroheptanoic Acid	375-85-9	1000 ng/mL
Perfluorohexadecanoic Acid	67905-19-5	1000 ng/mL

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Analyte	CAS number	Analyte concentration
Perfluorohexanesulfonic Acid, potassium salt	3871-99-6	1000 ng/mL
Perfluorohexanoic Acid, sodium salt	2923-26-4	1000 ng/mL
Perfluorononanoic Acid	375-95-1	1000 ng/mL
Perfluorooctadecanoic Acid	16517-11-6	1000 ng/mL
Perfluorooctane Sulfonamide PFOSA	754-91-6	1000 ng/mL
Perfluorooctanoic Acid	335-67-1	1000 ng/mL
Perfluoropentanesulfonic Acid, sodium salt	630402-22-1	1000 ng/mL
Perfluoropentanoic Acid, sodium salt	2706-89-0	1000 ng/mL
Perfluorotetradecanoic Acid	376-06-7	1000 ng/mL
Perfluorotridecanoic Acid	72629-94-8	1000 ng/mL
Perfluoroundecanoic Acid, sodium salt	60871-96-7	1000 ng/mL
Sodium Perfluorooctanesulfonate	4021-47-0	1000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5639	PFAS Superfund Mixture 1 2000 ng/mL in methanol	1.2 mL	24

Analyte	CAS number	Analyte concentration
1,1,2,2H-Perfluorodecanesulfonic Acid, sodium salt	27619-96-1	2000 ng/mL
1H,1H,2H,2H-Perfluorododecane sulfonic Acid sodium	108026-35-3	2000 ng/mL
1H,1H,2H,2H-Perfluorohexanesulfonic Acid sodium	27619-93-8	2000 ng/mL
1H,1H,2H,2H-Perfluorooctane sulfonic Acid sodium	27619-94-9	2000 ng/mL
2-(N-Ethylperfluorooctanesulfonamido)acetic Acid	2991-50-6	2000 ng/mL
2-(N-Methylperfluorooctanesulfonamido)acetic Acid	2355-31-9	2000 ng/mL
N-Methylperfluorooctanesulfonamide	31506-32-8	2000 ng/mL
Perfluoro-2-propoxypropanoic Acid (PFPrOPrA)	13252-13-6	2000 ng/mL
Perfluorobutanesulfonic Acid, potassium salt	29420-49-3	2000 ng/mL
Perfluorobutanoic Acid	375-22-4	2000 ng/mL
Perfluorododecanoic Acid, sodium salt	307-67-5	2000 ng/mL
Perfluorododecanoic Acid, sodum salt	3830-45-3	2000 ng/mL
Perfluoroheptanoic Acid	375-85-9	2000 ng/mL
Perfluorohexadecanoic Acid	67905-19-5	2000 ng/mL
Perfluorohexanesulfonic Acid, potassium salt	3871-99-6	2000 ng/mL
Perfluorohexanoic Acid, sodium salt	2923-26-4	2000 ng/mL
Perfluorononanoic Acid	375-95-1	2000 ng/mL
Perfluorooctadecanoic Acid	16517-11-6	2000 ng/mL
Perfluorooctane Sulfonamide PFOSA	754-91-6	2000 ng/mL
Perfluorooctane Sulfonic Acid	1763-23-1	2000 ng/mL
Perfluorooctanoic Acid	335-67-1	2000 ng/mL
Perfluoropentanoic Acid, sodium salt	2706-89-0	2000 ng/mL
Perfluorotetradecanoic Acid	376-06-7	2000 ng/mL
Perfluoroundecanoic Acid, sodium salt	60871-96-7	2000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5640	PFAS SIL Superfund Mixture 1	1.2 mL	23

Analyte	CAS number	Analyte concentration
Perfluorobutyric acid (PFBA), sodium salt (13C3, 99%)	N/A	1000 ng/mL
Perfluoropentanoic acid (PFPeA), sodium salt (13C5, 99%)	2483735-37-9	1000 ng/mL
Perfluorohexanoic acid (PFHxA), sodium salt (13C6, 99%)	N/A	1000 ng/mL
Perfluoroheptanoic acid (PFHpA), sodium salt (13C7, 99%)	N/A	1000 ng/mL
Perfluoro-n-octanoic acid (PFOA) (13C8, 99%)	1350614-84-4	1000 ng/mL
Perfluorononanoic acid (PFNA) (13C9, 99%)	N/A	1000 ng/mL
Perfluorodecanoic acid (PFDA) (13C9, 99%)	N/A	1000 ng/mL
Perfluoroundecanoic acid (PFUA), sodium salt (13C9, 99%)	N/A	1000 ng/mL
Perfluorododecanoic acid (PFDoA), sodium salt (13C12, 99%)	2483735-15-3	1000 ng/mL
Perfluorotetradecanoic acid (PFTeDA) (13C2, 99%)	N/A	1000 ng/mL
Perfluorohexadecanoic acid (PFHxDA) (13C2, 99%)	N/A	1000 ng/mL
Perfluorobutanesulfonate (PFBS), potassium salt (13C4, 99%)	N/A	1000 ng/mL
Potassium perfluoro-1-hexanesulfonate (PFHxS) (13C6, 99%)	N/A	1000 ng/mL
Sodium perfluoro-1-octanesulfonate (PFOS) (13C8, 99%)	N/A	1000 ng/mL
1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt (13C2, 99%; D4, 98%)	N/A	1000 ng/mL
1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt (13C2, 99%; D4, 98%)	N/A	1000 ng/mL
1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt (13C2, 99%; D4, 98%)	N/A	1000 ng/mL
1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt (13C2, 99%; D4, 98%)	N/A	1000 ng/mL
Perfluorooctanesulfonamide (PFOSA) (13C8, 99%)	N/A	1000 ng/mL
N-Methylperfluorooctanesulfonamide (N-MeFOSA) (D3, 98%)	N/A	1000 ng/mL
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (D3, 98%)	N/A	1000 ng/mL
N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (D5, 98%)	N/A	1000 ng/mL
Tetrafluoro-2-(heptafluoropropoxy) propanoic acid (HFPO-DA) (“GenX”) (13C3, 99%)	N/A	1000 ng/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5641	PFAS SIL Superfund Mixture 2	1.2 mL	12

Analyte	CAS number	Analyte concentration
Perfluorobutyric acid (PFBA), sodium salt (13C3, 99%)	N/A	1000 ng/mL
Perfluoropentanoic acid (PFPeA), sodium salt (13C5, 99%)	2483735-37-9	1000 ng/mL
Perfluorohexanoic acid (PFHxA), sodium salt (13C6, 99%)	N/A	1000 ng/mL
Perfluorodecanoic acid (PFDA) (13C9, 99%)	N/A	1000 ng/mL
Perfluoroundecanoic acid (PFUA), sodium salt (13C9, 99%)	N/A	1000 ng/mL
Perfluorododecanoic acid (PFDoA), sodium salt (13C12, 99%)	2483735-15-3	1000 ng/mL
Perfluorotetradecanoic acid (PFTeDA) (13C2, 99%)	N/A	1000 ng/mL
Perfluorobutanesulfonate (PFBS), potassium salt (13C4, 99%)	N/A	1000 ng/mL
Potassium perfluoro-1-hexanesulfonate (PFHxS) (13C6, 99%)	N/A	1000 ng/mL
1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt (13C2, 99%; D4, 98%)	N/A	1000 ng/mL
1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt (13C2, 99%; D4, 98%)	N/A	1000 ng/mL
Perfluorooctanesulfonamide (PFOSA) (13C8, 99%)	N/A	1000 ng/mL

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Product code	Product description	Pack size	Number of analytes
CIL-ES-5587	Perfluoroalkylcarboxylic Acid (PFCA) C4-C14 Native Mixture	1.2 mL	11

Analyte	CAS number	Analyte concentration
Perfluorobutanoic Acid	375-22-4	2000 µg/mL
Perfluoropentanoic Acid	2706-90-3	2000 µg/mL
Perfluorohexanoic Acid, sodium salt	2923-26-4	2000 µg/mL
Perfluoroheptanoic Acid	375-85-9	2000 µg/mL
Perfluorooctanoic Acid	335-67-1	2000 µg/mL
Perfluorononanoic Acid	375-95-1	2000 µg/mL
Perfluorodecanoic Acid	335-76-2	2000 µg/mL
Perfluoroundecanoic Acid, sodium salt	60871-96-7	2000 µg/mL
Perfluorododecanoic Acid	307-55-1	2000 µg/mL
Perfluorotridecanoic Acid	72629-94-8	2000 µg/mL
Perfluorotetradecanoic Acid	376-06-7	2000 µg/mL

Product code	Product description	Pack size	Number of analytes
CIL-ES-5576	Perfluoroalkylsulfonate (PFAS) C4-C10 Native Mixture	1.2 mL	7

Analyte	CAS number	Analyte concentration
Perfluorobutanesulfonic Acid, potassium salt	29420-49-3	5000 ng/mL
Perfluoropentanesulfonic Acid, sodium salt	630402-22-1	5000 ng/mL
Perfluorohexanesulfonic Acid, potassium salt	3871-99-6	5000 ng/mL
Perfluoroheptanesulfonic Acid, sodium salt	21934-50-9	5000 ng/mL
Perfluorooctanesulfonate, sodium salt	4021-47-0	5000 ng/mL
Perfluorononanesulfonic Acid, sodium salt	98789-57-2	5000 ng/mL
Perfluorodecanesulfonic Acid, sodium salt	2806-15-7	5000 ng/mL

Matrix Materials

Product code	Product description	Pack size	Number of analytes
IRMM-427	IRMM-427 PIKE-PERCH (PFASs in fish tissue)	35g	4
Analyte		**CAS number**	**Analyte concentration**
Linear perfluorooctane sulfonate (L-PFOS)		N/A	16 ng/g
Perfluorodecanoic Acid (PFDA)		335-76-2	1.28 ng/g
Perfluoroundecanoic Acid (PFUnDA)		2058-94-8	0.74 ng/g
Perfluorododecanoic Acid (PFDoDA)		307-55-1	0.97 ng/g

Product code	Product description	Pack size	Number of analytes
IRMM-428	WATER (PFASs in water)	410g	6
Analyte		**CAS number**	**Analyte concentration**
Perfluorobutane sulfonate (PFBS)		N/A	5.5 ng/L
Perfluoropentanoic Acid (PFPeA)		2706-90-3	4 ng/L
Perfluorohexane sulfonate (PFHxS)		N/A	3.6 ng/L
Perfluorohexanoic Acid (PFHxA)		307-24-4	7.4 ng/L
Perfluoropheptanoic Acid (PFHpA)		375-85-9	3.7 ng/L
Linear perfluorooctane sulfonate (L-PFOS)		N/A	9.6 ng/L

Product code	Product description	Pack size	Number of analytes
NIST-1946	PFAS in Lake Superior Fish Tissue	5 x 7 g	68
Analyte		**CAS number**	**Analyte concentration**
Perfluorooctanesulfonic Acid (PFOS)		**1763-23-1**	**2.19 µg/kg**
11Z,14Z-Eicosadienoic Acid		N/A	0.099 %
2,2',3,4,4',5'-Hexachlorobiphenyl		35065-28-2	115 ppb
2,4'-DDD		53-19-0	2.2 ppb
4,4'-DDD		72-54-8	17.7 ppb
4,4'-DDE		72-55-9	373 ppb
4,4'-DDT		50-29-3	37.2 ppb
α-HCH		319-84-6	5.72 ppb
Arachidic Acid		506-30-9	0.01 %
Arsenic		7440-38-2	0.277 ppm
BDE 28		41318-75-6	0.742 ppb
BDE 99		60348-60-9	18.5 ppb
BDE 100		189084-64-8	8.57 ppb
BDE 153		68631-49-2	2.81 ppb
BDE 154		207122-15-4	5.77 ppb

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Analyte	CAS number	Analyte concentration
Cis α-Linolenic Acid (ALA)	463-40-1	0.221 %
Cis Docosapentaenoic Acid (DPA)	25182-74-5	0.335 %
Cis Eicosapentaenoic Acid (EPA)	10417-94-4	0.296 %
Cis-Chlordane (A Isomer)	5103-71-9	32.5 ppb
Cis-Docosahexaenoic Acid (DHA)	6217-54-5	0.92 %
Cis-Nonachlor	5103-73-1	59.1 ppb
Dieldrin	60-57-1	32.5 ppb
γ-HCH	58-89-9	1.14 ppb
Heptachlor epoxide	N/A	5.5 ppb
Hexachlorobenzene	118-74-1	7.25 ppb
Iron	7439-89-6	4 ppm
Linoleic Acid	60-33-3	0.348 %
Mercury	7439-97-6	0.433 ppm
Methylmercury	22967-92-6	0.394 ppm
Mirex	2385-85-5	6.47 ppb
Oxy-Chlordane	27304-13-8	18.9 ppb
Palmitic Acid	57-10-3	1.22 %
PBDE 47 (2,2',4,4'-Tetrabromodiphenyl ether)	5436-43-1	29.9 ppb
PBDE 66	189084-61-5	1.35 ppb
PCB No. 44	41464-39-5	4.66 ppb
PCB No. 49	41464-40-8	3.8 ppb
PCB No. 52	35693-99-3	8.1 ppb
PCB No. 66	32598-10-0	10.8 ppb
PCB No. 70	32598-11-1	14.9 ppb
PCB No. 74	32690-93-0	4.83 ppb
PCB No. 77 (3,3',4,4'-Tetrachlorobiphenyl)	32598-13-3	0.327 ppb
PCB No. 87	38380-02-8	9.4 ppb
PCB No. 95	38379-99-6	11.4 ppb
PCB No. 99 (2,2',4,4',5-Pentachlorobiphenyl)	38380-01-7	25.6 ppb
PCB No. 101	37680-73-2	34.6 ppb
PCB No. 105	32598-14-4	19.9 ppb
PCB No. 110	38380-03-9	22.8 ppb
PCB No. 118	31508-00-6	52.1 ppb
PCB No. 126	57465-28-8	0.38 ppb
PCB No. 128	38380-07-3	22.8 ppb
PCB No. 146	51908-16-8	30.1 ppb
PCB No. 149	38380-04-0	26.3 ppb
PCB No. 153	35065-27-1	170 ppb
PCB No. 156	38380-08-4	9.52 ppb
PCB No. 169	32774-16-6	0.106 ppb
PCB No. 170	35065-30-6	25.2 ppb
PCB No. 180	35065-29-3	74.4 ppb
PCB No. 183	52663-69-1	21.9 ppb
PCB No. 187	52663-68-0	55.2 ppb
PCB No. 194	35694-08-7	13 ppb
PCB No. 195	52663-78-2	5.3 ppb

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Analyte	CAS number	Analyte concentration
PCB No. 206	40186-72-9	5.4 ppb
PCB No. 209	2051-24-3	1.3 ppb
Stearic Acid	57-11-4	0.263 %
Total fat	N/A	10.17 %
Total Trans fatty Acids	N/A	8.76 %
Trans-Chlordane (γ Isomer)	5103-74-2	8.36 ppb
Trans-Nonachlor	39765-80-5	99.6 ppb

Product code	Product description	Pack size	Number of analytes
NIST-1947	PFAS in Lake Michigan Fish Tissue	5 x 8 g	64

Analyte	CAS number	Analyte concentration
Perfluorooctanesulfonic Acid (PFOS)	**1763-23-1**	**5.90 µg/kg**
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	162 ppb
2,4'-DDD	53-19-0	3.31 ppb
2,4'-DDE	3424-82-6	3.39 ppb
2,4'-DDT	789-02-6	15.7 ppb
4,4'-DDD	72-54-8	45.9 ppb
4,4'-DDE	72-55-9	720 ppb
4,4'-DDT	50-29-3	59.5 ppb
α-HCH	319-84-6	1.06 ppb
Arsenic	7440-38-2	0.732 ppm
BDE 99	60348-60-9	19.2 ppb
BDE 100	189084-64-8	17.1 ppb
BDE 153	68631-49-2	3.83 ppb
BDE 154	207122-15-4	6.88 ppb
Cis-Nonachlor	5103-73-1	54.1 ppb
Copper	7440-50-8	0.411 ppm
Dieldrin	60-57-1	80.8 ppb
Heptachlor epoxide	N/A	13.4 ppb
Hexachlorobenzene	118-74-1	7.48 ppb
Iron	7439-89-6	3.79 ppm
Manganese	7439-96-5	0.076 ppm
Mercury	7439-97-6	0.254 ppm
Methylmercury	22967-92-6	0.233 ppm
Mirex	2385-85-5	5.09 ppb
Oxy-Chlordane	27304-13-8	23.6 ppb
PBDE 47 (2,2',4,4'-Tetrabromodiphenyl ether)	5436-43-1	73.3 ppb
PBDE 49	243982-82-3	4.01 ppb
PBDE 66	189084-61-5	1.85 ppb
PCB No. 28	7012-37-5	14.1 ppb
PCB No. 31	16606-02-3	10.4 ppb

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Analyte	CAS number	Analyte concentration
PCB No. 44	41464-39-5	20.4 ppb
PCB No. 49	41464-40-8	27.3 ppb
PCB No. 52	35693-99-3	36.4 ppb
PCB No. 63	74472-34-7	4.75 ppb
PCB No. 66	32598-10-0	69.4 ppb
PCB No. 74	32690-93-0	33.7 ppb
PCB No. 87	38380-02-8	27.9 ppb
PCB No. 99 (2,2',4,4',5-Pentachlorobiphenyl)	38380-01-7	78 ppb
PCB No. 101	37680-73-2	90.8 ppb
PCB No. 105	32598-14-4	50.3 ppb
PCB No. 107	70424-68-9	17.1 ppb
PCB No. 110	38380-03-9	94.6 ppb
PCB No. 118	31508-00-6	112 ppb
PCB No. 128	38380-07-3	31.6 ppb
PCB No. 132	38380-05-1	20.8 ppb
PCB No. 146	51908-16-8	40.5 ppb
PCB No. 149	38380-04-0	67.1 ppb
PCB No. 153	35065-27-1	201 ppb
PCB No. 156	38380-08-4	13.3 ppb
PCB No. 158	74472-42-7	11.3 ppb
PCB No. 170	35065-30-6	29.2 ppb
PCB No. 174	38411-25-5	18.6 ppb
PCB No. 180	35065-29-3	80.8 ppb
PCB No. 183	52663-69-1	23.3 ppb
PCB No. 187	52663-68-0	54.8 ppb
PCB No. 193	69782-91-8	6.04 ppb
PCB No. 194	35694-08-7	13.2 ppb
PCB No. 195	52663-78-2	4.95 ppb
PCB No. 206	40186-72-9	6.24 ppb
Rubidium	7440-17-7	4.51 ppm
Selenium	7782-49-2	0.475 ppm
Trans-Chlordane (γ Isomer)	5103-74-2	12.8 ppb

Product code	Product description	Pack size	Number of analytes
NIST-1957	Organic Contaminants in Non-Fortified Human Serum (Freeze-Dried)	5 x 10.7 mL	18

Analyte	CAS number	Analyte concentration
Perfluorooctanesulfonic acid (PFOS)	**1763-23-1**	**21.1 µg/kg**
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	36.9 ppt
2,2',4,4',5,5'-Hexabromobiphenyl	59080-40-9	15.5 ppt
4,4'-DDE	72-55-9	921 ppt
BDE 99	60348-60-9	76 ppt
BDE 100	189084-64-8	49.7 ppt
BDE 153	68631-49-2	61 ppt
Hexachlorobenzene	118-74-1	29.7 ppt
PBDE 47 (2,2',4,4'-Tetrabromodiphenyl ether)	5436-43-1	268 ppt
PCB No. 118	31508-00-6	18.9 ppt
PCB No. 153	35065-27-1	58.2 ppt
PCB No. 170	35065-30-6	16.2 ppt
PCB No. 180 and 193	N/A	54.5 ppt
PCB No. 187	52663-68-0	15.5 ppt
PCB No. 194	35694-08-7	11.9 ppt
Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.172 µg/kg
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	4.00 µg/kg
Trans-Nonachlor	39765-80-5	58.3 ppt

Product code	Product description	Pack size	Number of analytes
NIST-1958	Organic Contaminants in Fortified Human Serum (Freeze-Dried) (PFAS)	5 x 10.7 mL	66

Analyte	CAS number	Analyte concentration
Perfluorooctanesulfonic acid (PFOS)	**1763-23-1**	**16.6 µg/kg**
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	473 ppt
2,2',4,4',5,5'-Hexabromobiphenyl	59080-40-9	421 ppt
2,4'-DDD	53-19-0	347 ppt
2,4'-DDE	3424-82-6	450 ppt
2,4'-DDT	789-02-6	313 ppt
4,4'-DDD	72-54-8	416 ppt
4,4'-DDE	72-55-9	1250 ppt
4,4'-DDT	50-29-3	293 ppt
BDE 28	41318-75-6	462 ppt
BDE 99	60348-60-9	492 ppt
BDE 100	189084-64-8	475 ppt
BDE 153	68631-49-2	455 ppt
BDE 154	207122-15-4	441 ppt
BDE 183	207122-16-5	453 ppt
Cis-Chlordane (A Isomer)	5103-71-9	412 ppt
Cis-Nonachlor	5103-73-1	425 ppt

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Analyte	CAS number	Analyte concentration
Hexachlorobenzene	118-74-1	442 ppt
Mirex	2385-85-5	384 ppt
Octachlorostyrene	29082-74-4	359 ppt
PBDE 17	147217-75-2	458 ppt
PBDE 47 (2,2',4,4'-Tetrabromodiphenyl ether)	5436-43-1	651 ppt
PBDE 66	189084-61-5	440 ppt
PBDE 85	182346-21-0	475 ppt
PBDE 206 (2,2',3,3',4,4',5,5',6-Nonabromodiphenyl Ether)	63387-28-0	426 ppt
PBDE 209	1163-19-5	417 ppt
PCB No. 18	37680-65-2	407 ppt
PCB No. 28	7012-37-5	402 ppt
PCB No. 44	41464-39-5	408 ppt
PCB No. 49	41464-40-8	414 ppt
PCB No. 52	35693-99-3	401 ppt
PCB No. 66	32598-10-0	414 ppt
PCB No. 74	32690-93-0	414 ppt
PCB No. 87	38380-02-8	396 ppt
PCB No. 99 (2,2',4,4',5-Pentachlorobiphenyl)	38380-01-7	385 ppt
PCB No. 101	37680-73-2	409 ppt
PCB No. 105	32598-14-4	419 ppt
PCB No. 110	38380-03-9	397 ppt
PCB No. 118	31508-00-6	412 ppt
PCB No. 128	38380-07-3	420 ppt
PCB No. 146	51908-16-8	378 ppt
PCB No. 149	38380-04-0	373 ppt
PCB No. 151	52663-63-5	381 ppt
PCB No. 153	35065-27-1	457 ppt
PCB No. 156	38380-08-4	418 ppt
PCB No. 157	69782-90-7	420 ppt
PCB No. 158	74472-42-7	365 ppt
PCB No. 167	52663-72-6	403 ppt
PCB No. 170	35065-30-6	422 ppt
PCB No. 172	52663-74-8	395 ppt
PCB No. 177	52663-70-4	392 ppt
PCB No. 178	52663-67-9	386 ppt
PCB No. 180	35065-29-3	459 ppt
PCB No. 183	52663-69-1	407 ppt
PCB No. 187	52663-68-0	411 ppt
PCB No. 189	39635-31-9	402 ppt
PCB No. 194	35694-08-7	387 ppt
PCB No. 195	52663-78-2	385 ppt
PCB No. 196	42740-50-1	397 ppt
PCB No. 199	52663-75-9	379 ppt
PCB No. 203	52663-76-0	398 ppt
PCB No. 206	40186-72-9	366 ppt

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Analyte	CAS number	Analyte concentration
PCB No. 209	2051-24-3	338 ppt
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	2.66 µg/kg
Trans-Chlordane (γ Isomer)	5103-74-2	412 ppt
Trans-Nonachlor	39765-80-5	469 ppt

Product code	Product description	Pack size	Number of analytes
NIST-2585	Organic Contaminants in House Dust (PFAS)	10 g	90

Analyte	CAS number	Analyte concentration
Perfluorobutanoic Acid (PFBA)	**375-22-4**	**230 µg/kg**
Perfluorohexanoic Acid (PFHxA)	**307-24-4**	**260 µg/kg**
Perfluoroheptanoic Acid (PFHpA)	**375-85-9**	**249 µg/kg**
Perfluorononanoic Acid (PFNA)	**375-95-1**	**99.4 µg/kg**
Perfluorododecanoic Acid (PFDoA)	**307-55-1**	**34.6 µg/kg**
Perfluorotridecanoic Acid (PFTriA)	**72629-94-8**	**29.4 µg/kg**
Perfluorohexanesulfonic Acid (PFHxS)	**355-46-4**	**1440 µg/kg**
Perfluorooctanesulfonic Acid (PFOS)	**1763-23-1**	**2310 µg/kg**
1-Methylphenanthrene	832-69-9	197 ppb
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	27.6 ppb
2,4'-DDT	789-02-6	44.5 ppb
2-Methylphenanthrene	2531-84-2	352 ppb
3-Methylphenanthrene	832-71-3	293 ppb
4,4'-DDD	72-54-8	27.3 ppb
4,4'-DDE	72-55-9	261 ppb
4,4'-DDT	50-29-3	111 ppb
4,5-Methylenephenanthrene	203-64-5	117 ppb
9-Methylphenanthrene	883-20-5	205 ppb
Anthracene	120-12-7	96 ppb
BDE 28	41318-75-6	46.9 ppb
BDE 99	60348-60-9	892 ppb
BDE 100	189084-64-8	145 ppb
BDE 153	68631-49-2	119 ppb
BDE 154	207122-15-4	83.5 ppb
BDE 183	207122-16-5	43 ppb
Benz(a)anthracene	56-55-3	1160 ppb
Benzo(a)fluoranthene	203-33-8	74.5 ppb
Benzo(b)chrysene	214-17-5	182 ppb
Benzo(b/k)fluoranthene	N/A	596 ppb
Benzo(c)phenanthrene	195-19-7	288 ppb
Benzo(e)pyrene	192-97-2	2160 ppb
Benzo(g,h,i)fluoranthene	203-12-3	317 ppb
Benzo(j)fluoranthene	205-82-3	1320 ppb
Benzo(k)fluoranthene	207-08-9	1330 ppb

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Analyte	CAS number	Analyte concentration
Benzo[a]pyrene	50-32-8	1140 ppb
Benzo[b]fluoranthene	205-99-2	2700 ppb
Benzo[ghi]perylene	191-24-2	2280 ppb
Chrysene	218-01-9	2260 ppb
Coronene	191-07-1	603 ppb
Dibenzo(a,e)pyrene	192-65-4	477 ppb
Dibenzo(a,h)anthracene	53-70-3	301 ppb
Dibenzo(a,j)anthracene	224-41-9	267 ppb
Dibenzo[a,c]anthracene	215-58-7	183 ppb
Dibenzothiophene	132-65-0	109 ppb
Fluoranthene	206-44-0	4380 ppb
Indeno[1,2,3-cd]pyrene	193-39-5	2080 ppb
Naphthalene	91-20-3	266 ppb
PBDE 17	147217-75-2	11.5 ppb
PBDE 47 (2,2',4,4'-Tetrabromodiphenyl ether)	5436-43-1	497 ppb
PBDE 49	243982-82-3	53.5 ppb
PBDE 85	182346-21-0	43.8 ppb
PBDE 138	182677-30-1	15.2 ppb
PBDE 155	35854-94-5	3.94 ppb
PBDE 203 (2,2',3,4,4',5,5',6-Octabromodiphenyl Ether)	337513-72-1	36.7 ppb
PBDE 206 (2,2',3,3',4,4',5,5',6-Nonabromodiphenyl Ether)	63387-28-0	271 ppb
PBDE 209	1163-19-5	2510 ppb
PCB No. 18	37680-65-2	12.8 ppb
PCB No. 28	7012-37-5	13.4 ppb
PCB No. 31	16606-02-3	14 ppb
PCB No. 44	41464-39-5	18.1 ppb
PCB No. 52	35693-99-3	21.8 ppb
PCB No. 56	41464-43-1	4.42 ppb
PCB No. 70	32598-11-1	13.1 ppb
PCB No. 74	32690-93-0	5.22 ppb
PCB No. 87	38380-02-8	16.6 ppb
PCB No. 92	52663-61-3	5.48 ppb
PCB No. 95	38379-99-6	22.7 ppb
PCB No. 99 (2,2',4,4',5-Pentachlorobiphenyl)	38380-01-7	11.6 ppb
PCB No. 101	37680-73-2	29.8 ppb
PCB No. 105	32598-14-4	13.2 ppb
PCB No. 107	70424-68-9	4.14 ppb
PCB No. 110	38380-03-9	28.1 ppb
PCB No. 118	31508-00-6	26.3 ppb
PCB No. 146	51908-16-8	4.89 ppb
PCB No. 149	38380-04-0	24.4 ppb
PCB No. 151	52663-63-5	6.92 ppb
PCB No. 153	35065-27-1	40.2 ppb
PCB No. 158	74472-42-7	4.5 ppb

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Analyte	CAS number	Analyte concentration
PCB No. 163	74472-44-9	7.2 ppb
PCB No. 170	35065-30-6	8.8 ppb
PCB No. 174	38411-25-5	8.83 ppb
PCB No. 180	35065-29-3	18.4 ppb
PCB No. 183	52663-69-1	5.27 ppb
PCB No. 187	52663-68-0	11.3 ppb
PCB No. 206	40186-72-9	3.81 ppb
Perylene	198-55-0	387 ppb
Phenanthrene	85-01-8	1920 ppb
Picene	213-46-7	413 ppb
Pyrene	129-00-0	3290 ppb
Triphenylene	217-59-4	589 ppb

Product code	Product description	Pack size	Number of analytes
NIST-2586	Trace Elements in Soil Containing Lead From Paint (Nominal Mass Fraction of 500 mg/kg Lead) (PFAS)	55 g	44

Analyte	CAS number	Analyte concentration
Perfluorooctane Sulfonate (PFOS)	**N/A**	**3.41 µg/kg**
Aluminium	7429-90-5	66520 mg/kg
Arsenic	7440-38-2	6.7 mg/kg
Barium	7440-39-3	413 mg/kg
Beryllium	7440-41-7	1.4 mg/kg
Cadmium	7440-43-9	2.3 mg/kg
Calcium	7440-70-2	22180 mg/kg
Cerium	7440-45-1	57.1 mg/kg
Chromium	7440-47-3	114 mg/kg
Cobalt	7440-48-4	35 mg/kg
Copper	7440-50-8	81 mg/kg
Dysprosium	7429-91-6	4.69 mg/kg
Erbium	7440-52-0	3.3 mg/kg
Europium	7440-53-1	1.33 mg/kg
Gadolinium	7440-54-2	6.04 mg/kg
Gallium	7440-55-3	14 mg/kg
Holmium	7440-60-0	1.1 mg/kg
Iron	7439-89-6	51610 mg/kg
Lanthanum	7439-91-0	27 mg/kg
Lead	7439-92-1	401.2 mg/kg
Lithium	7439-93-2	25 mg/kg
Magnesium	7439-95-4	17070 mg/kg
Manganese	7439-96-5	1000 mg/kg
Mercury	7439-97-6	0.367 mg/kg

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Analyte	CAS number	Analyte concentration
Neodymium	7440-00-8	27.2 mg/kg
Nickel	7440-02-0	75 mg/kg
Niobium	01/03/7660	6 mg/kg
Phosphorus	7723-14-0	1001 mg/kg
Potassium	07/09/7440	9760 mg/kg
Praseodymium	7440-10-0	6.78 mg/kg
Samarium	7440-19-9	6.02 mg/kg
Scandium	7440-20-2	24 mg/kg
Selenium	7782-49-2	0.6 mg/kg
Silicon	7440-21-3	291500 mg/kg
Sodium	7440-23-5	4680 mg/kg
Strontium	7440-24-6	84.1 mg/kg
Terbium	7440-27-9	0.79 mg/kg
Thorium	7440-29-1	7 mg/kg
Thulium	7440-30-4	0.5 mg/kg
Titanium	7440-32-6	6050 mg/kg
Vanadium	7440-62-2	160 mg/kg
Ytterbium	7440-64-4	2.06 mg/kg
Yttrium	7440-65-5	20.5 mg/kg
Zinc	7440-66-6	352 mg/kg

Product code	Product description	Pack size	Number of analytes
NIST-2781	Domestic Sludge (PFAS)	40 g	8

Analyte	CAS number	Analyte concentration
Perfluorohexanoic Acid (PFHxA)	307-24-4	13 mg/kg
Perfluoroheptanoic Acid (PFHpA)	375-85-9	7.96 mg/kg
Perfluorooctanonic Acid (PFOA)	335-67-1	28.5 mg/kg
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	9.39 mg/kg
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	225 mg/kg
Perfluorooctanesulfonamide (PFOSA)	754-91-6	6.31 mg/kg
Perfluorononanoic Acid (PFNA)	375-95-1	5.09 µg/kg
Perfluorodecanoic Acid (PFDA)	335-76-2	4.76 µg/kg

Product code	Product description	Pack size	Number of analytes
NIST-8446	Perfluorinated Carboxylic Acids and Perfluorooctane Sulfonamide in Methanol (PFAS)	4 x 1.2 mL	12

Analyte	CAS number	Analyte concentration
Perfluorobutanoic Acid	375-22-4	43 mg/kg
Perfluoropentanoic Acid	2706-90-3	60.9 mg/kg
Perfluorohexanoic Acid	307-24-4	59.1 mg/kg
Perfluoroheptanoic Acid	375-85-9	76 mg/kg
Perfluorooctane sulfonamide PFOSA	754-91-6	66.9 mg/kg
Perfluorooctanoic Acid	335-67-1	54.8 mg/kg
Perfluorononanoic Acid	375-95-1	63 mg/kg
Perfluorodecanoic Acid	335-76-2	58.1 mg/kg
Perfluoroundecanoic Acid	2058-94-8	62.8 mg/kg
Perfluorododecanoic Acid	307-55-1	59.5 mg/kg
Perfluorotridecanoic Acid	72629-94-8	62.9 mg/kg
Perfluorotetradecanoic Acid	376-06-7	58 mg/kg

Product code	Product description	Pack size	Number of analytes
NIST-8447	Perfluorinated Sulfonic Acids in Methanol (PFAS)	3 x 1.2 mL	3

Analyte	CAS number	Analyte concentration
Perfluorobutanesulfonic Acid	375-73-5	42.3 mg/kg
Perfluorohexanesulfonic Acid	355-46-4	55.2 mg/kg
Perfluorooctane sulfonic Acid	1763-23-1	56.6 mg/kg

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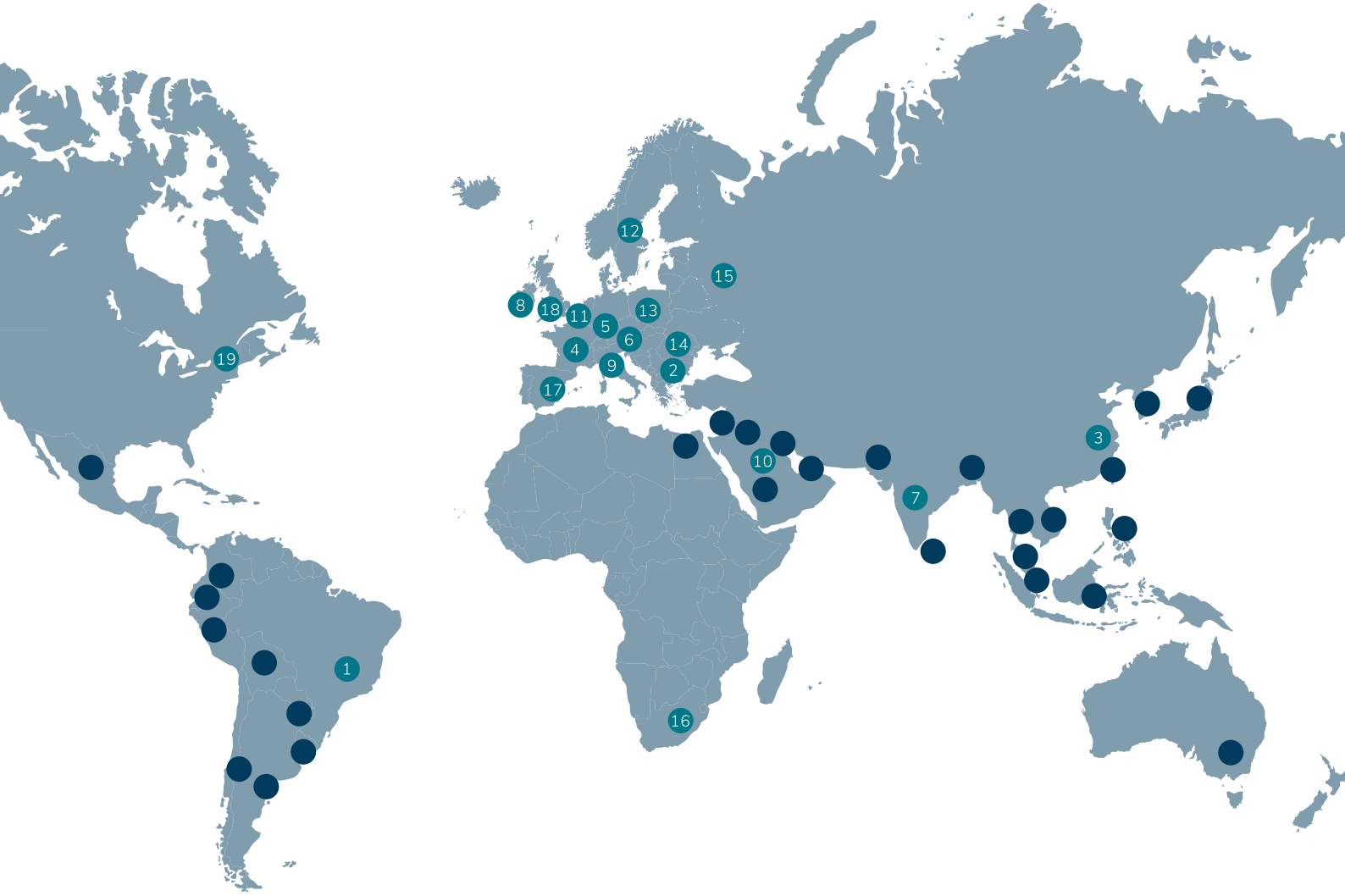

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