



Cambridge Isotope Laboratories, Inc.
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ENVIRONMENTAL STANDARDS

Per- and Polyfluoroalkyl Substances (PFAS)



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Introduction

Per- and polyfluoroalkyl substances (PFAS) are a class of industrial chemicals that are used to resist grease, oil, water, and heat. They are most commonly used in the manufacture of water- and stain-resistant fabrics and carpeting, food packaging, and fire-fighting foams.

PFAS have been one of the most discussed classes of chemical pollutants in recent years due to their widespread use, prevalence and persistence in the environment, and human-exposure concerns. Regulatory agencies worldwide have begun proposing or enacting bans on certain PFAS compounds to protect the environment and

human health from additional PFAS accumulation and exposure. And with ever-decreasing allowable limits, the need for more analytical standards is increasingly important.

CIL has been working diligently to produce high-purity stable isotope-labeled and native individual and multi-component PFAS standards to assist with ongoing environmental and biomonitoring studies. More standards are being developed and released as new compounds of concern are identified and standardized methods are established.

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Chemical purity for unlabeled/native compounds is 97-99% or greater unless otherwise specified; chemical purity for labeled compounds is 95-99% or greater unless otherwise specified.



Standards for Environmental Analysis

Through our collaborations with environmental testing laboratories, regulatory agencies, and research institutions around the world, CIL has developed numerous products to assist a wide range of testing applications. You will find more than 3,000 products developed specifically for trace and ultratrace analysis by isotope dilution mass spectrometry (IDMS). As new technology and methodologies advance, CIL maintains a leadership role in developing new standards and standard mixtures to keep pace with these new procedures. You will find throughout this catalog many new products developed in various solvents for use in not only new GC-MS applications, but also LC-MS methods that continue to gain importance as an integral part of the environmental testing laboratory.

Perfluorocarboxylic Acids (PFCA)

Catalog No.	Description	Concentration	Amount
CLM-11046-1.2	Trifluoroacetic acid (TFA), sodium salt ($^{13}\text{C}_2$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11087-1.2	Trifluoroacetic acid (TFA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11324-A-1.2	Perfluoropropanoic acid (PFPrA) ($^{13}\text{C}_3$, 99%)	50 µg/mL in methanol (w/4 molar equivalent NaOH)	1.2 mL
ULM-11323-A-1.2	Perfluoropropanoic acid (PFPrA) (unlabeled)	50 µg/mL in methanol (w/4 molar equivalent NaOH)	1.2 mL
CLM-10883-1.2	Perfluorobutyric acid (PFBA), sodium salt (2,3,4- $^{13}\text{C}_3$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-8173-1.2	Perfluorobutyric acid (PFBA), sodium salt ($^{13}\text{C}_4$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11058-1.2	Perfluorobutyric acid (PFBA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-10931-1.2	Perfluoropentanoic acid (PFPeA), sodium salt (pentanoyl- $^{13}\text{C}_5$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-10960-1.2	Perfluoropentanoic acid (PFPeA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-8340-1.2	Perfluorohexanoic acid (PFHxA), sodium salt ($^{13}\text{C}_6$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-8342-1.2	Perfluorohexanoic acid (PFHxA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-10624-1.2	Perfluoroheptanoic acid (PFHpA), sodium salt ($^{13}\text{C}_7$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-9516-1.2	Perfluoroheptanoic acid (PFHpA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-8005-A-1.2	Perfluoro-n-octanoic acid (PFOA) ($^{13}\text{C}_8$, 99%)	50 µg/mL in methanol (w/4 molar equivalent NaOH)	1.2 mL
ULM-7451-1.2	Perfluorooctanoic acid (PFOA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-8060-1.2	Perfluorononanoic acid (PFNA) ($^{13}\text{C}_9$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-11537-1.2	Sodium perfluoro-n-nonanoic acid (PFNA) (1,2,3,4,5,6- $^{13}\text{C}_6$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-8066-1.2	Perfluorononanoic acid (PFNA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11039-1.2	Perfluorodecanoic acid (PFDA), sodium salt ($^{13}\text{C}_9$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-11538-1.2	Sodium perfluoro-n-decanoic acid (PFDA) (1,2,3,4,5,6- $^{13}\text{C}_6$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11038-1.2	Perfluorodecanoic acid (PFDA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-8789-1.2	Perfluoroundecanoic acid (PFUA), sodium salt ($^{13}\text{C}_9$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-8084-1.2	Perfluoroundecanoic acid (PFUA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-10593-1.2	Perfluorododecanoic acid (PFDoA), sodium salt ($^{13}\text{C}_{12}$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-10594-1.2	Perfluorododecanoic acid (PFDoA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-9955-1.2	Perfluorotridecanoic acid (PFTrDA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-9956-1.2	Perfluorotetradecanoic acid (PFTeDA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-10721-1.2	Perfluorohexadecanoic acid (PFHxDA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-10722-1.2	Perfluorooctadecanoic acid (PFODA) (unlabeled)	50 µg/mL in methanol	1.2 mL

ES-5587	Perfluoroalkylcarboxylic acid (PFCA) C_4 - C_{14} Native Mixture	1.2 mL in methanol
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Unlabeled	(ng/mL)*
Perfluorobutyric acid (PFBA)	2000
Perfluoropentanoic acid (PFPA)	2000
Perfluorohexanoic acid (PFHxA), sodium salt	2000
Perfluoroheptanoic acid (PFHpA)	2000
Perfluorooctanoic acid (PFOA)	2000
Perfluorononanoic acid (PFNA)	2000
Perfluorodecanoic acid (PFDA)	2000
Perfluoroundecanoic acid (PFUA), sodium salt	2000
Perfluorododecanoic acid (PFDoA)	2000
Perfluorotridecanoic acid (PFTrA)	2000
Perfluorotetradecanoic acid (PFTeA)	2000

*Gravimetric concentration is based on the salt form, where applicable.

Perfluoroalkyl Sulfonates (PFAS)

Catalog No.	Description	Concentration	Amount
ULM-11655-1.2	Sodium perfluoro-1-propanesulfonate (PFPrS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-9523-1.2	Perfluorobutanesulfonate (PFBS), potassium salt (¹³ C ₄ , 99%)	50 µg/mL in methanol	1.2 mL
ULM-9521-1.2	Perfluorobutanesulfonate (PFBS), potassium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-9520-1.2	Perfluoropentanesulfonate (PFPeS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-9526-1.2	Perfluorohexanesulfonate (PFHxS), potassium salt (¹³ C ₆ , 99%)	50 µg/mL in methanol	1.2 mL
ULM-12310-1.2	Potassium perfluoro-1-hexanesulfonate (PFHxS) (unlabeled) (linear isomer)	50 µg/mL in methanol	1.2 mL
ULM-9524-1.2	Perfluorohexanesulfonate (PFHxS), potassium salt (unlabeled) (mix of isomers)	50 µg/mL in methanol	1.2 mL
ULM-9531-1.2	Perfluoroheptanesulfonate (PFHpS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11340-1.2	Potassium perfluoro-1-octanesulfonate (PFOS) (¹³ C ₈ , 99%)	50 µg/mL in methanol	1.2 mL
ULM-11563-1.2	Potassium perfluoro-1-octanesulfonate (PFOS) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-9001-1.2	Perfluorooctanesulfonate (PFOS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-10655-1.2	Perfluorooctanesulfonate (PFOS) (unlabeled) (mix of isomers)	50 µg/mL in methanol	1.2 mL
ULM-9530-1.2	Perfluorononanesulfonate (PFNS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-12322-1.2	Perfluorodecanesulfonate (PFDS), potassium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-11557-1.2	Perfluorododecanesulfonic acid (PFDoS), potassium salt (unlabeled)	50 µg/mL in methanol	1.2 mL

ES-5576-A	Perfluoroalkylsulfonate (PFAS) C ₄ -C ₁₀ Native Mixture	1.2 mL in methanol
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Unlabeled	(ng/mL)*
Perfluorobutanesulfonate (PFBS), potassium salt	5000
Perfluoropentanesulfonate (PFPeS), sodium salt	5000
Potassium perfluorohexanesulfonate (PFHxS) (mix of isomers)	5000
Perfluoroheptanesulfonate (PFHpS), sodium salt	5000
Sodium perfluoro-1-octanesulfonate (PFOS)	5000
Perfluorononanesulfonate (PFNS), sodium salt	5000
Perfluorodecanesulfonate (PFDS), potassium salt	5000

*Gravimetric concentration is based on the salt form, where applicable.

PFOS/PFOA Mixtures

Catalog No.	Description	Amount
ES-5570	PFOS/PFOA Calibration Series CS1-CS5	5 × 0.25 mL in methanol
ES-5570-CS0.25	PFOS/PFOA Calibration Series CS0.25	0.25 mL in methanol

All concentrations are in ng/mL*

Unlabeled	CS0.25**	CS1	CS2	CS3	CS4	CS5
Perfluorooctanoic acid (PFOA)	0.5	2	10	50	200	1000
Perfluorooctanesulfonate (PFOS), sodium salt	0.5	2	10	50	200	1000
Extraction						
Perfluorooctanoic acid (PFOA) (¹³ C ₈ , 99%)	50	50	50	50	50	50
Perfluorooctanesulfonate (PFOS), sodium salt (¹³ C ₈ , 99%)	50	50	50	50	50	50
Injection						
Perfluorononanoic acid (PFNA) (¹³ C ₉ , 99%)	50	50	50	50	50	50

*Gravimetric concentration is based on the salt form, where applicable. **Not included in ES-5570 – available for separate purchase.

ES-5571	PFOS/PFOA Extraction Standard Mixture	3 mL in methanol
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Labeled	(ng/mL)*
Perfluorooctanoic acid (PFOA) (¹³ C ₈ , 99%)	2000
Perfluorooctanesulfonate (PFOS), sodium salt (¹³ C ₈ , 99%)	2000

*Gravimetric concentration is based on the salt form, where applicable.

ES-5572	PFOS/PFOA Injection Standard Mixture	3 mL in methanol
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Labeled	(ng/mL)*
Perfluorononanoic acid (PFNA) (¹³ C ₉ , 99%)	2000

*Gravimetric concentration is based on the salt form, where applicable.

ES-5573	PFOS/PFOA Native Standard Mixture	1.2 mL in methanol
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Unlabeled	(ng/mL)*
Perfluorooctanoic acid (PFOA)	5000
Perfluorooctanesulfonate (PFOS), sodium salt	5000

*Gravimetric concentration is based on the salt form, where applicable.

ES-5649	PFOS/PFOA/PFHxS Labeled Standard Mixture	1.2 mL in methanol
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Labeled	(ng/mL)*
Sodium perfluoro-1-octanesulfonate (PFOS) (¹³ C ₈ , 99%)	2000
Perfluoro-n-octanoic acid (PFOA) (¹³ C ₈ , 99%)	2000
Potassium perfluoro-1-hexanesulfonate (PFHxS) (¹³ C ₆ , 99%)	2000

*Gravimetric concentration is based on the free acid, where applicable.

ES-5648	PFOS/PFOA/PFHxS Native Analyte Mixture	1.2 mL in methanol
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Unlabeled	(ng/mL)*
Sodium perfluoro-1-octanesulfonate (PFOS)	5000
Perfluoro-n-octanoic acid (PFOA)	5000
Potassium perfluoro-1-hexanesulfonate (PFHxS) (linear isomer)	5000

*Gravimetric concentration is based on the free acid, where applicable.

Fluoroethers and Polyethers

Catalog No.	Description	Concentration	Amount
CLM-11543-1.2	Tetrafluoro-2-(heptafluoropropoxy) propanoic acid ("GenX"), sodium salt ($^{13}\text{C}_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-11542-1.2	Tetrafluoro-2-(heptafluoropropoxy) propanoic acid ("GenX"), sodium salt (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-11280-1.2	Dodecafluoro-3H-4,8-dioxanonanoic acid (DONA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-10843-1.2	9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid, potassium salt (9Cl-PF3ONS) (F53BMAJ) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-10844-1.2	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid, potassium salt (11Cl-PF3OUdS) (F53BMIN) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-11230-1.2	Perfluoro-3,6-dioxa-4-methyl-7-octenesulfonic acid (Nafion BP1) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-11231-1.2	7H-Perfluoro-4-methyl-3,6-dioxaoctanesulfonic acid (Nafion BP2) (unlabeled) CP 95%	50 µg/mL in methanol	1.2 mL
ULM-11226-1.2	Perfluoro(3,5-dioxahexanoic) acid (PFO2HxA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-12320-1.2	Perfluoro-2-methoxypropanoic acid (PMPA) (unlabeled) (contains ~1.8% NaPEPA) CP 97%	50 µg/mL in methanol	1.2 mL
ULM-12321-1.2	Perfluoro-2-ethoxypropanoic acid, sodium salt (PEPA) (unlabeled) (contains ~2.4% PMPA)	50 µg/mL in methanol	1.2 mL
ULM-11223-1.2	Perfluoro-2-methoxyacetic acid (PFMOAA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-10738-1.2	Perfluoro-3-methoxypropanoic acid (PFMPA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-10739-1.2	Perfluoro-4-methoxybutanoic acid (PFMBA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-10734-1.2	Perfluoro-3,6-dioxaheptanoic acid (PFDHA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-11128-1.2	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA) (unlabeled)	50 µg/mL in methanol	1.2 mL

Other Fluorinated Compounds

Catalog No.	Description	Concentration	Amount
ULM-11073-1.2	Bis(1H,1H,2H,2H-perfluorodecyl) phosphate (8:2-DiPAP) (unlabeled) CP 94%	50 µg/mL in methanol	1.2 mL
CLM-11260-1.2	2,2-Difluoromalonic acid (MMF), disodium salt ($^{13}\text{C}_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-12303-1.2	2,2-Difluoromalonic acid (MMF), disodium salt (unlabeled)	100 µg/mL in methanol	1.2 mL

Fluorotelomer Sulfonates (FTS)

Catalog No.	Description	Concentration	Amount
CDLM-10753-1.2	1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	50 µg/mL in methanol	1.2 mL
ULM-10757-1.2	1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CDLM-10752-1.2	1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	50 µg/mL in methanol	1.2 mL
ULM-10756-1.2	1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CDLM-10751-1.2	1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	50 µg/mL in methanol	1.2 mL
ULM-10755-1.2	1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
CDLM-10750-1.2	1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	50 µg/mL in methanol	1.2 mL
ULM-10754-1.2	1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL

ES-5661	Fluorotelomer Sulfonates (FTS) Labeled Standard Mixture	1.2 mL in methanol
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Labeled	(ng/mL)*
1H,1H,2H,2H-Perfluorohexanesulfonate, sodium salt (4:2 FTS) ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
1H,1H,2H,2H-Perfluorooctanesulfonate, sodium salt (6:2 FTS) ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
1H,1H,2H,2H-Perfluorodecanesulfonate, sodium salt (8:2 FTS) ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
1H,1H,2H,2H-Perfluorododecanesulfonate, sodium salt (10:2 FTS) ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000

*Gravimetric concentration is based on the salt form, where applicable.

ES-5662	Fluorotelomer Sulfonates (FTS) Native Standard Mixture	1.2 mL in methanol
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Unlabeled	(ng/mL)*
1H,1H,2H,2H-Perfluorohexanesulfonate, sodium salt (4:2 FTS)	1000
1H,1H,2H,2H-Perfluorooctanesulfonate, sodium salt (6:2 FTS)	1000
1H,1H,2H,2H-Perfluorodecanesulfonate, sodium salt (8:2 FTS)	1000
1H,1H,2H,2H-Perfluorododecanesulfonate, sodium salt (10:2 FTS)	1000

*Gravimetric concentration is based on the salt form, where applicable.

Fluorotelomer Alcohols (FTOH)

Catalog No.	Description	Concentration	Amount
ULM-10723-1.2	1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH) (unlabeled)	100 µg/mL in methanol	1.2 mL
CDLM-10709-1.2	1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH) (1,2- ¹³ C ₂ , 99%; 1,1,2,2-D ₄ , 98%)	50 µg/mL in methanol	1.2 mL
ULM-10724-1.2	1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH) (unlabeled)	100 µg/mL in methanol	1.2 mL
CDLM-10712-1.2	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH) (1,2- ¹³ C ₂ , 99%; 1,1,2,2-D ₄ , 98%) CP 95%	50 µg/mL in methanol	1.2 mL
ULM-10727-1.2	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH) (unlabeled)	100 µg/mL in methanol	1.2 mL
CDLM-10715-1.2	1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH) (1,2- ¹³ C ₂ , 99%; 1,1,2,2-D ₄ , 98%)	50 µg/mL in methanol	1.2 mL
ULM-11175-1.2	1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH) (unlabeled)	50 µg/mL in methanol	1.2 mL

Fluorotelomer Acids (FTA)

Catalog No.	Description	Concentration	Amount
ULM-10725-1.2	2H,2H-Perfluorooctanoic acid (6:2 FTA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-10726-1.2	2H,2H-Perfluorodecanoic acid (8:2 FTA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-11532-1.2	2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-11533-1.2	2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-11534-1.2	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA) (unlabeled)	100 µg/mL in methanol	1.2 mL

Perfluorooctanesulfonamidoacetic Acids (FOSAA)

Catalog No.	Description	Concentration	Amount
DLM-10663-1.2	<i>N</i> -Methylperfluorooctanesulfonamidoacetic acid (<i>N</i> -MeFOSAA) (<i>N</i> -methyl-D ₃ , 98%)	50 µg/mL in methanol	1.2 mL
ULM-10656-1.2	<i>N</i> -Methylperfluorooctanesulfonamidoacetic acid (<i>N</i> -MeFOSAA) (unlabeled) (mix of isomers)	50 µg/mL in methanol	1.2 mL
DLM-10664-1.2	<i>N</i> -Ethylperfluorooctanesulfonamidoacetic acid (<i>N</i> -EtFOSAA) (<i>N</i> -ethyl-D ₅ , 98%)	50 µg/mL in methanol	1.2 mL
ULM-10657-1.2	<i>N</i> -Ethylperfluorooctanesulfonamidoacetic acid (<i>N</i> -EtFOSAA) (unlabeled) (mix of isomers)	50 µg/mL in methanol	1.2 mL

Perfluorooctanesulfonamides (FOSA)

Catalog No.	Description	Concentration	Amount
ULM-11129-1.2	Perfluorobutanesulfonamide (PFBSA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-11130-1.2	Perfluorohexanesulfonamide (PFHxSA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11007-1.2	Perfluorooctanesulfonamide (PFOSA) (¹³ C ₈ , 99%)	50 µg/mL in methanol	Inquire
ULM-10977-1.2	Perfluorooctanesulfonamide (PFOSA) (unlabeled) (mix of isomers)	50 µg/mL in methanol	1.2 mL
ULM-11309-1.2	Perfluorooctanesulfonamide (PFOSA) (unlabeled) (linear isomer)	50 µg/mL in methanol	1.2 mL
DLM-10740-1.2	<i>N</i> -Methylperfluorooctanesulfonamide (<i>N</i> -MeFOSA) (D ₃ , 98%)	100 µg/mL in methanol	1.2 mL
ULM-10779-1.2	<i>N</i> -Methylperfluorooctanesulfonamide (<i>N</i> -MeFOSA) (unlabeled)	100 µg/mL in methanol	1.2 mL
DLM-10741-1.2	<i>N</i> -Ethylperfluorooctanesulfonamide (<i>N</i> -EtFOSA) (D ₅ , 98%)	100 µg/mL in methanol	1.2 mL
ULM-10780-1.2	<i>N</i> -Ethylperfluorooctanesulfonamide (<i>N</i> -EtFOSA) (unlabeled)	100 µg/mL in methanol	1.2 mL

Perfluorooctanesulfonamido Ethanols (FOSE)

Catalog No.	Description	Concentration	Amount
DLM-11035-1.2	<i>N</i> -Methylperfluorooctanesulfonamidoethanol (<i>N</i> -MeFOSE) (<i>N</i> -methyl-D ₃ , 98%)	50 µg/mL in methanol	1.2 mL
ULM-11034-1.2	<i>N</i> -Methylperfluorooctanesulfonamidoethanol (<i>N</i> -MeFOSE) (unlabeled) (mix of isomers)	50 µg/mL in methanol	1.2 mL
DLM-11037-1.2	<i>N</i> -Ethylperfluorooctanesulfonamidoethanol (<i>N</i> -EtFOSE) (<i>N</i> -ethyl-D ₅ , 98%)	50 µg/mL in methanol	1.2 mL
ULM-11036-1.2	<i>N</i> -Ethylperfluorooctanesulfonamidoethanol (<i>N</i> -EtFOSE) (unlabeled) (mix of isomers)	50 µg/mL in methanol	1.2 mL

Bile Acid Salts

Catalog No.	Description	Concentration	Amount
ULM-9943-0.01	Taurodeoxycholic acid (TDCA), sodium salt hydrate (unlabeled)	neat	0.01 g
ULM-9561-0.01	Taurochenodeoxycholic acid (TCDC), sodium salt (unlabeled)	neat	0.01 g
ULM-9885-0.01	Tauroursodeoxycholic acid (TUDCA), dihydrate (unlabeled)	neat	0.01 g

EPA Method 537 Mixtures

Catalog No.	Description	Amount
ES-5609	Method 537 PFC Native Analyte Mix	1.2 mL in methanol
	Unlabeled	(ng/mL)*
	Perfluorohexanoic acid (PFHxA), sodium salt	2000
	Perfluoroheptanoic acid (PFHpA)	2000
	Perfluorooctanoic acid (PFOA)	2000
	Perfluorononanoic acid (PFNA)	2000
	Perfluorodecanoic acid (PFDA)	2000
	Perfluoroundecanoic acid (PFUA), sodium salt	2000
	Perfluorododecanoic acid (PFDoA)	2000
	Perfluorotridecanoic acid (PFTrDA)	2000
	Perfluorotetradecanoic acid (PFTeDA)	2000
	Perfluorobutanesulfonate (PFBS), potassium salt	2000
	Perfluorohexanesulfonate (PFHxS), potassium salt (mixed isomers)	2000
	Perfluorooctanesulfonate (PFOS) (mixed isomers)	2000
	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (mixed isomers)	8000
	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (mixed isomers)	8000
	<i>*Gravimetric concentration is based on the salt form, where applicable.</i>	
ES-5610	Method 537 PFC Internal Standard Mix (¹³ C; D)	1.2 mL in methanol
	Labeled	(ng/mL)*
	Perfluorooctanoic acid (PFOA) (¹³ C ₈ , 99%)	1000
	Perfluorooctanesulfonate (PFOS), sodium salt (¹³ C ₈ , 99%)	3000
	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (N-methyl-D ₃ , 98%)	4000
	<i>*Gravimetric concentration is based on the salt form, where applicable.</i>	
ES-5611	Method 537 PFC Surrogate Standard Mix (¹³ C; D)	1.2 mL in methanol
	Labeled	(ng/mL)*
	Perfluorohexanoic acid (PFHxA), sodium salt (¹³ C ₆ , 99%)	1000
	Perfluorodecanoic acid (PFDA) (¹³ C ₉ , 99%)	1000
	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (N-ethyl-D ₅ , 98%)	4000
	<i>*Gravimetric concentration is based on the salt form, where applicable.</i>	

EPA Method 537.1 Mixtures

Catalog No.	Description	Amount
ES-5631-A	Method 537.1 Analyte Primary Dilution Standard (PDS)	1.2 mL in methanol (with 4 molar equivalent NaOH)
	Unlabeled	(ng/mL)*
	Perfluorohexanoic acid (PFHxA), sodium salt	2000
	Perfluoroheptanoic acid (PFHpA)	2000
	Perfluorooctanoic acid (PFOA)	2000
	Perfluorononanoic acid (PFNA)	2000
	Perfluorodecanoic acid (PFDA), sodium salt	2000
	Perfluoroundecanoic acid (PFUA), sodium salt	2000
	Perfluorododecanoic acid (PFDoA), sodium salt	2000
	Perfluorotridecanoic acid (PFTrDA)	2000
	Perfluorotetradecanoic acid (PFTeDA)	2000
	Perfluorobutanesulfonate (PFBS), potassium salt	2000
	Potassium perfluorohexanesulfonate (PFHxS) (mixed isomers)	2000
	Perfluorooctanesulfonate (PFOS) (mixed isomers)	2000
	<i>N</i> -Methylperfluorooctanesulfonamidoacetic acid (<i>N</i> -MeFOSAA) (mixed isomers)	2000
	<i>N</i> -Ethylperfluorooctanesulfonamidoacetic acid (<i>N</i> -EtFOSAA) (mixed isomers)	2000
	Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA) ("GenX")	2000
	9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS) (F53BMAJ), potassium salt	2000
	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUds) (F53BMIN), potassium salt	2000
	Dodecafluoro-3H-4,8-dioxanonanoic acid (DONA)	2000
	<i>*Gravimetric concentration is based on the free acid, where applicable.</i>	
ES-5610-A	Method 537.1 Internal Standard Primary Dilution Standard (ISPDS)	1.2 mL in methanol (with 4 molar equivalent NaOH)
	Labeled	(ng/mL)*
	Perfluorooctanoic acid (PFOA) (¹³ C ₈ , 99%)	1000
	Sodium perfluorooctanesulfonate (PFOS) (¹³ C ₈ , 99%)	3000
	<i>N</i> -Methylperfluorooctanesulfonamidoacetic acid (<i>N</i> -MeFOSAA) (<i>N</i> -methyl-D ₃ , 98%)	4000
	<i>*Gravimetric concentration is based on the free acid, where applicable.</i>	
ES-5632	Method 537.1 Surrogate Primary Dilution Standard (SUR PDS)	1.2 mL in methanol (with 4 molar equivalent NaOH)
	Labeled	(ng/mL)*
	Perfluorohexanoic acid (PFHxA), sodium salt (¹³ C ₆ , 99%)	1000
	Perfluorodecanoic acid (PFDA) (¹³ C ₉ , 99%)	1000
	<i>N</i> -Ethylperfluorooctanesulfonamidoacetic acid (<i>N</i> -EtFOSAA) (<i>N</i> -ethyl-D ₅ , 98%)	4000
	Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA) ("GenX") (¹³ C ₃ , 99%)	1000
	<i>*Gravimetric concentration is based on the free acid, where applicable.</i>	

EPA Method 533 Mixtures

Catalog No.	Description	Concentration	Amount
ES-5654	EPA Method 533 Native Analyte PDS	in methanol (with 4 molar equivalent NaOH)	1.2 mL
Unlabeled			(ng/mL)*
	Perfluorobutyric acid (PFBA)		1000
	Perfluoropentanoic acid (PFPeA), sodium salt		1000
	Perfluorohexanoic acid (PFHxA), sodium salt		1000
	Perfluoroheptanoic acid (PFHpA)		1000
	Perfluorooctanoic acid (PFOA)		1000
	Perfluorononanoic acid (PFNA)		1000
	Perfluorodecanoic acid (PFDA), sodium salt		1000
	Perfluoroundecanoic acid (PFUnA), sodium salt		1000
	Perfluorododecanoic acid (PFDoA), sodium salt		1000
	Perfluorobutanesulfonate (PFBS), potassium salt		1000
	Perfluoropentanesulfonate (PFPS), sodium salt		1000
	Perfluorohexanesulfonate (PFHxS), potassium salt (mixed isomers)		1000
	Perfluoroheptanesulfonate (PFHpS), sodium salt		1000
	Perfluorooctanesulfonate (PFOS) (mixed isomers)		1000
	1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt		1000
	1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt		1000
	1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt		1000
	Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA) ("GenX")		1000
	Dodecafluoro-3H-4,8-dioxanonanoic acid (DONA)		1000
	9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS), potassium salt		1000
	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS), potassium salt		1000
	Perfluoro-3-methoxypropanoic acid (PFMPA)		1000
	Perfluoro-4-methoxybutanoic acid (PFMBA)		1000
	Perfluoro-3,6-dioxahexanoic acid (PFDHA)		1000
	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)		1000

*Gravimetric concentration is based on the free acid, where applicable.

EPA Method 533 Mixtures

Catalog No.	Description	Concentration	Amount
ES-5656	EPA Method 533 Isotope Dilution Standard PDS	in methanol (with 4 molar equivalent NaOH)	1.2 mL

Labeled	(ng/mL)*
Perfluorobutyric acid (PFBA) ($^{13}\text{C}_4$, 99%), sodium salt	500
Perfluoropentanoic acid (PFPeA) ($^{13}\text{C}_5$, 99%), sodium salt	500
Perfluorohexanoic acid (PFHxA) ($^{13}\text{C}_6$, 99%), sodium salt	500
Perfluoroheptanoic acid (PFHpA) ($^{13}\text{C}_7$, 99%), sodium salt	500
Perfluorooctanoic acid (PFOA) ($^{13}\text{C}_8$, 99%)	500
Perfluorononanoic acid (PFNA) ($^{13}\text{C}_9$, 99%)	500
Perfluorodecanoic acid (PFDA) ($^{13}\text{C}_{10}$, 99%)	500
Perfluoroundecanoic acid (PFUnA) ($^{13}\text{C}_{11}$, 99%), sodium salt	500
Perfluorododecanoic acid (PFDoA) ($^{13}\text{C}_{12}$, 99%), sodium salt	500
Perfluorobutanesulfonate (PFBS) ($^{13}\text{C}_4$, 99%), potassium salt	500
Perfluorohexanesulfonate (PFHxS) ($^{13}\text{C}_6$, 99%), potassium salt	500
Perfluorooctanesulfonate (PFOS) ($^{13}\text{C}_8$, 99%), sodium salt	500
Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA) ("GenX") ($^{13}\text{C}_3$, 99%)	500
1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS) ($^{13}\text{C}_2$, 99%; D_4 , 98%), sodium salt	2000
1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS) ($^{13}\text{C}_2$, 99%; D_4 , 98%), sodium salt	2000
1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS) ($^{13}\text{C}_2$, 99%; D_4 , 98%), sodium salt	2000

*Gravimetric concentration is based on the free acid, where applicable.

ES-5655	EPA Method 533 Isotope Performance Standard PDS	Inquire	Inquire
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Labeled	(ng/mL)*
Perfluorobutyric acid (PFBA) ($^{13}\text{C}_3$, 99%)	1000
Perfluorooctanoic acid (PFOA) ($^{13}\text{C}_3$, 99%)	1000
Perfluorooctanesulfonate (PFOS) ($^{13}\text{C}_3$, 99%)	3000

*Gravimetric concentration is based on the free acid, where applicable.

UCMR 5 Supplemental Mixture

Catalog No.	Description	Concentration	Amount
ES-5664	UCMR 5 Supplemental Native PFAS 4-Component Mix	in methanol (with 4 molar equivalent NaOH)	1.2 mL

Unlabeled	(ng/mL)*
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (mixed isomers)	2000
N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (mixed isomers)	2000
Perfluorotetradecanoic acid (PFTeA)	2000
Perfluorotridecanoic acid (PFTrA)	2000

*Gravimetric concentration is based on the free acid, where applicable.

EPA Method 8327 Mixtures

Catalog No.	Description	Amount
ES-5643	Method 8327 Surrogate Spiking Mixture	1.2 mL in methanol (with 4 molar equivalent NaOH)

Labeled	(ng/mL)*
Perfluorobutyric acid (PFBA), sodium salt (2,3,4- ¹³ C ₃ , 99%)	1000
Perfluoropentanoic acid (PFPeA), sodium salt (pentanoyl- ¹³ C ₅ , 99%)	1000
Perfluorohexanoic acid (PFHxA), sodium salt (¹³ C ₆ , 99%)	1000
Perfluoroheptanoic acid (PFHpA), sodium salt (heptanoyl- ¹³ C ₇ , 99%)	1000
Perfluoro-n-octanoic acid (PFOA) (¹³ C ₈ , 99%)	1000
Perfluorononanoic acid (PFNA) (¹³ C ₉ , 99%)	1000
Perfluorodecanoic acid (PFDA) (¹³ C ₉ , 99%)	1000
Perfluoroundecanoic acid (PFUA), sodium salt (¹³ C ₉ , 99%)	1000
Perfluorododecanoic acid (PFDoA), sodium salt (dodecanoyl- ¹³ C ₁₂ , 99%)	1000
Perfluorotetradecanoic acid (PFTeDA) (¹³ C ₂ , 99%)	1000
Perfluorobutanesulfonate (PFBS), potassium salt (¹³ C ₄ , 99%)	1000
Potassium perfluoro-1-hexanesulfonate (PFHxS) (¹³ C ₆ , 99%)	1000
Potassium perfluoro-1-octanesulfonate (PFOS) (¹³ C ₈ , 99%)	1000
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2 FTS), sodium salt (¹³ C ₂ , 99%; D ₄ , 98%)	1000
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2 FTS), sodium salt (¹³ C ₂ , 99%; D ₄ , 98%)	1000
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2 FTS), sodium salt (¹³ C ₂ , 99%; D ₄ , 98%)	1000
Perfluorooctanesulfonamide (PFOSA) (¹³ C ₈ , 99%)	1000
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (N-methyl-D ₃ , 98%)	1000
N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (N-ethyl-D ₅ , 98%)	1000

*Gravimetric concentration is based on the free acid, where applicable.

ES-5642	Method 8327 Target Analyte Mixture	1.2 mL in methanol (with 4 molar equivalent NaOH)
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Unlabeled	(ng/mL)*
Perfluorobutyric acid (PFBA), sodium salt	2000
Perfluoropentanoic acid (PFPeA), sodium salt	2000
Perfluorohexanoic acid (PFHxA), sodium salt	2000
Perfluoroheptanoic acid (PFHpA)	2000
Perfluoro-n-octanoic acid (PFOA)	2000
Perfluorononanoic acid (PFNA)	2000
Perfluorodecanoic acid (PFDA), sodium salt	2000
Perfluoroundecanoic acid (PFUA), sodium salt	2000
Perfluorododecanoic acid (PFDoA), sodium salt	2000
Perfluorotridecanoic acid (PFTrDA)	2000
Perfluorotetradecanoic acid (PFTeDA)	2000
Perfluorobutanesulfonate (PFBS), potassium salt	2000
Perfluoropentanesulfonate (PFPeS), sodium salt	2000
Potassium perfluorohexanesulfonate (PFHxS) (mix of isomers)	2000
Perfluoroheptanesulfonate (PFHpS), sodium salt	2000
Perfluorooctanesulfonic acid (PFOS) (mix of isomers)	2000
Perfluorononanesulfonate (PFNS), sodium salt	2000
Perfluorodecanesulfonate (PFDS), potassium salt	2000
1H,1H,2H,2H-Perfluorohexane sulfonate (4:2 FTS), sodium salt	2000
1H,1H,2H,2H-Perfluorooctane sulfonate (6:2 FTS), sodium salt	2000
1H,1H,2H,2H-Perfluorodecane sulfonate (8:2 FTS), sodium salt	2000
Perfluorooctanesulfonamide (PFOSA)	2000
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (mix of isomers)	2000
N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (mix of isomers)	2000

*Gravimetric concentration is based on the free acid, where applicable.

PFAS Mixtures

Catalog No.	Description	Amount
ES-5640	PFAS SIL Superfund Mixture 1	1.2 mL in methanol (with 4 molar equivalent NaOH)

Labeled	(ng/mL)*
Perfluorobutyric acid (PFBA), sodium salt ($^{13}\text{C}_3$, 99%)	1000
Perfluoropentanoic acid (PFPeA), sodium salt ($^{13}\text{C}_5$, 99%)	1000
Perfluorohexanoic acid (PFHxA), sodium salt ($^{13}\text{C}_6$, 99%)	1000
Perfluoroheptanoic acid (PFHpA), sodium salt ($^{13}\text{C}_7$, 99%)	1000
Perfluoro-n-octanoic acid (PFOA) ($^{13}\text{C}_8$, 99%)	1000
Perfluorononanoic acid (PFNA) ($^{13}\text{C}_9$, 99%)	1000
Perfluorodecanoic acid (PFDA) ($^{13}\text{C}_9$, 99%)	1000
Perfluoroundecanoic acid (PFUA), sodium salt ($^{13}\text{C}_9$, 99%)	1000
Perfluorododecanoic acid (PFDoA), sodium salt ($^{13}\text{C}_{12}$, 99%)	1000
Perfluorotetradecanoic acid (PFTeDA) ($^{13}\text{C}_2$, 99%)	1000
Perfluorohexadecanoic acid (PFHxDA) ($^{13}\text{C}_2$, 99%)	1000
Perfluorobutanesulfonate (PFBS), potassium salt ($^{13}\text{C}_4$, 99%)	1000
Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}\text{C}_6$, 99%)	1000
Sodium perfluoro-1-octanesulfonate (PFOS) ($^{13}\text{C}_8$, 99%)	1000
1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
Perfluorooctanesulfonamide (PFOSA) ($^{13}\text{C}_8$, 99%)	1000
N-Methylperfluorooctanesulfonamide (N-MeFOSA) (D_3 , 98%)	1000
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (D_3 , 98%)	1000
N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (D_5 , 98%)	1000
Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA) ("GenX") ($^{13}\text{C}_3$, 99%)	1000

*Gravimetric concentration is based on the free acid, where applicable.

ES-5641	PFAS SIL Superfund Mixture 2	1.2 mL in methanol (with 4 molar equivalent NaOH)
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Labeled	(ng/mL)*
Perfluorobutyric acid (PFBA), sodium salt ($^{13}\text{C}_3$, 99%)	1000
Perfluoropentanoic acid (PFPeA), sodium salt ($^{13}\text{C}_5$, 99%)	1000
Perfluorohexanoic acid (PFHxA), sodium salt ($^{13}\text{C}_6$, 99%)	1000
Perfluorodecanoic acid (PFDA) ($^{13}\text{C}_9$, 99%)	1000
Perfluoroundecanoic acid (PFUA), sodium salt ($^{13}\text{C}_9$, 99%)	1000
Perfluorododecanoic acid (PFDoA), sodium salt ($^{13}\text{C}_{12}$, 99%)	1000
Perfluorotetradecanoic acid (PFTeDA) ($^{13}\text{C}_2$, 99%)	1000
Perfluorobutanesulfonate (PFBS), potassium salt ($^{13}\text{C}_4$, 99%)	1000
Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}\text{C}_6$, 99%)	1000
1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt ($^{13}\text{C}_2$, 99%; D_4 , 98%)	1000
Perfluorooctanesulfonamide (PFOSA) ($^{13}\text{C}_8$, 99%)	1000

*Gravimetric concentration is based on the free acid, where applicable.

PFAS Mixture

Catalog No.	Description	Amount
ES-5639-A	PFAS Superfund Mixture 1	1.2 mL in methanol (with 4 molar equivalent NaOH)
	Unlabeled	(ng/mL)*
	Perfluorobutyric acid (PFBA), sodium salt	2000
	Perfluoropentanoic acid (PFPeA), sodium salt	2000
	Perfluorohexanoic acid (PFHxA), sodium salt	2000
	Perfluoroheptanoic acid (PFHpA)	2000
	Perfluorooctanoic acid (PFOA)	2000
	Perfluorononanoic acid (PFNA)	2000
	Perfluorodecanoic acid (PFDA), sodium salt	2000
	Perfluoroundecanoic acid (PFUA), sodium salt	2000
	Perfluorododecanoic acid (PFDoA), sodium salt	2000
	Perfluorotetradecanoic acid (PFTeDA)	2000
	Perfluorohexadecanoic acid (PFHxDA)	2000
	Perfluorooctadecanoic acid (PFODA)	2000
	Perfluorobutanesulfonate (PFBS), potassium salt	2000
	Potassium perfluorohexanesulfonate (PFHxS) (mixed isomers)	2000
	Perfluorooctanesulfonate (PFOS) (mixed isomers)	2000
	1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt	2000
	1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt	2000
	1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt	2000
	1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt	2000
	Perfluorooctanesulfonamide (PFOSA)	2000
	<i>N</i> -Methylperfluorooctanesulfonamide (<i>N</i> -MeFOSA)	2000
	<i>N</i> -Methylperfluorooctanesulfonamidoacetic acid (<i>N</i> -MeFOSAA) (mixed isomers)	2000
	<i>N</i> -Ethylperfluorooctanesulfonamidoacetic acid (<i>N</i> -EtFOSAA) (mixed isomers)	2000
	Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA) ("GenX")	2000

*Gravimetric concentration is based on the free acid, where applicable.

PFAS Mixture

Catalog No.	Description	Amount
ES-5636-A	PFAS EF-28 Native Mixture	1.2 mL in methanol

Unlabeled	(ng/mL)*
Perfluorobutyric acid (PFBA), sodium salt	1000
Perfluoropentanoic acid (PFPeA), sodium salt	1000
Perfluorohexanoic acid (PFHxA), sodium salt	1000
Perfluoroheptanoic acid (PFHpA)	1000
Perfluoro-n-octanoic acid (PFOA)	1000
Perfluorononanoic acid (PFNA)	1000
Perfluorodecanoic acid (PFDA), sodium salt	1000
Perfluoroundecanoic acid (PFUA), sodium salt	1000
Perfluorododecanoic acid (PFDoA), sodium salt	1000
Perfluorotridecanoic acid (PFTrDA)	1000
Perfluorotetradecanoic acid (PFTeDA)	1000
Perfluorohexadecanoic acid (PFHxDA)	1000
Perfluorooctadecanoic acid (PFODA)	1000
Perfluorobutanesulfonate (PFBS), potassium salt	1000
Perfluoropentanesulfonate (PFPeS), sodium salt	1000
Perfluorohexanesulfonate (PFHxS), potassium salt (mixed isomers)	1000
Perfluoroheptanesulfonate (PFHpS), sodium salt	1000
Perfluoro-1-octanesulfonate (PFOS), sodium salt	1000
Perfluorodecanesulfonate (PFDS), potassium salt	1000
1H,1H,2H,2H-Perfluorohexanesulfonate (4:2 FTS), sodium salt	1000
1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS), sodium salt	1000
1H,1H,2H,2H-Perfluorodecanesulfonate (8:2 FTS), sodium salt	1000
1H,1H,2H,2H-Perfluorododecanesulfonate (10:2 FTS), sodium salt	1000
Perfluorooctanesulfonamide (PFOSA)	1000
N-Methylperfluorooctanesulfonamide (N-MeFOSA)	1000
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) (mixed isomers)	1000
N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) (mixed isomers)	1000
Bis(1H,1H,2H,2H-perfluorodecyl)phosphate (8:2-DiPAP)	1000

*Gravimetric concentration is based on the free acid, where applicable.

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