Cambridge Isotope Laboratories, Inc.
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ENVIRONMENTAL STANDARDS

Per- and Polyfluoroalkyl Substances (PFAS)



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Introduction

Per- and polyfluoralkyl 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.

Table of Contents

Perfluorocarboxylic Acids (PFCA) 3
Perfluoroalkyl Sulfonates (PFAS) 4
PFCA/PFAS Mixtures 5
Ultrashort-chain (USC) PFAS 6
TOP Assay Oxidation Monitoring Surrogates 7
Fluoroethers and Polyethers 8
Fluorotelomer Sulfonates (FTS) 8
Fluorotelomer Acids (FTA) 9
Fluorotelomer Alcohols (FTOH) 9
Fluorotelomer Acrylates (FTAcr) 9
Perfluorooctanesulfonamides (FOSA) 9
Perfluorooctanesulfonamidoacetic Acids (FOSAA) 9
Perfluorooctanesulfonamido Ethanols (FOSE) 10
Fluorotelomer Iodides (FTI) 10
Other Fluorinated Compounds 10
Bile Acid Standards 10
EPA Method 1633A Mixtures 11
EPA Method 533 Mixtures 13
EPA Method 537.1 Mixtures 15
EPA Method 8327 Mixtures 16
Custom PFAS Mixtures 17

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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
CDLM-7943-1.2	Sodium monofluoroacetate (MFA) ($^{13}C_2$, 99%; 2,2-D_2, 98%)	1 mg/mL in water	1.2 mL
ULM-9674-1.2	Sodium monofluoroacetate (MFA) (unlabeled)	1 mg/mL in water	1.2 mL
CLM-11964-1.2	Sodium difluoroacetate (DFA) ($^{13}C_2$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11934-1.2	Sodium difluoroacetate (DFA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11046-1.2	Sodium trifluoroacetate (TFA) ($^{13}C_2$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11087-1.2	Sodium trifluoroacetate (TFA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11324-A-1.2	Perfluoropropanoic acid (PFPrA) ($^{13}C_3$, 99%)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
ULM-11323-A-1.2	Perfluoropropanoic acid (PFPrA) (unlabeled)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-10883-1.2	Sodium perfluoro-*n*-butyrate (PFBA) (2,3,4-$^{13}C_3$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-8173-1.2	Sodium perfluoro-*n*-butyrate (PFBA) ($^{13}C_4$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11058-1.2	Sodium perfluoro-*n*-butyrate (PFBA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-10931-1.2	Sodium perfluoro-*n*-pentanoate (PFPeA) (pentanoyl-$^{13}C_5$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-10960-1.2	Sodium perfluoro-*n*-pentanoate (PFPeA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-8340-1.2	Sodium perfluoro-*n*-hexanoate (PFHxA) ($^{13}C_6$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-11541-1.2	Sodium perfluoro-*n*-hexanoate (PFHxA) (4,5,6-$^{13}C_3$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-8342-1.2	Sodium perfluoro-*n*-hexanoate (PFHxA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-10624-1.2	Sodium perfluoro-*n*-heptanoate (PFHpA) ($^{13}C_7$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-11723-1.2	Sodium perfluoro-*n*-heptanoate (PFHpA) (5,6,7-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-9516-A-1.2	Perfluoro-*n*-heptanoic acid (PFHpA) (unlabeled)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-8005-A-1.2	Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_8$, 99%)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-11727-1.2	Perfluoro-*n*-octanoic acid (PFOA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-7181-1.2	Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_3$, 99%)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
ULM-11782-1.2	Sodium perfluoro-*n*-octanoate (PFOA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-8060-A-1.2	Perfluoro-*n*-nonanoic acid (PFNA) ($^{13}C_9$, 99%)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-11724-1.2	Perfluoro-*n*-nonanoic acid (PFNA) (7,8,9-$^{13}C_3$, 99%)	100 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-11537-1.2	Sodium perfluoro-*n*-nonanoate (PFNA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-8066-A-1.2	Perfluoro-*n*-nonanoic acid (PFNA) (unlabeled)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-11039-1.2	Sodium perfluoro-*n*-decanoate (PFDA) ($^{13}C_9$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-11538-1.2	Sodium perfluoro-*n*-decanoate (PFDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11038-1.2	Sodium perfluoro-*n*-decanoate (PFDA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-8789-1.2	Sodium perfluoro-*n*-undecanoate (PFUA) ($^{13}C_9$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-8084-1.2	Sodium perfluoro-*n*-undecanoate (PFUA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-10593-1.2	Sodium perfluoro-*n*-dodecanoate (PFDoA) ($^{13}C_{12}$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-10594-1.2	Sodium perfluoro-*n*-dodecanoate (PFDoA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11757-1.2	Sodium perfluoro-*n*-tridecanoate (PFTrDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11909-1.2	Sodium perfluoro-*n*-tridecanoate (PFTrDA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11535-1.2	Sodium perfluoro-*n*-tetradecanoate (PFTeDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-9956-A-1.2	Perfluoro-*n*-tetradecanoic acid (PFTeDA) (unlabeled)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-11544-1.2	Sodium perfluoro-*n*-hexadecanoate (PFHxDA) (1,2,3,4-$^{13}C_4$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-10721-A-1.2	Perfluoro-*n*-hexadecanoic acid (PFHxDA) (unlabeled)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
ULM-10722-A-1.2	Perfluoro-*n*-octadecanoic acid (PFODA) (unlabeled)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL

Perfluoroalkyl Sulfonates (PFAS)

Catalog No.	Description	Concentration	Amount
CLM-11766-1.2	Potassium trifluoromethanesulfonate (TFMS) (^{13}C, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11678-1.2	Sodium trifluoromethanesulfonate (TFMS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11679-1.2	Potassium perfluoroethanesulfonate (PFEtS) ($^{13}C_2$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11676-1.2	Sodium perfluoroethanesulfonate (PFEtS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11677-1.2	Potassium perfluoro-1-propanesulfonate (PFPrS) ($^{13}C_3$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11655-1.2	Sodium perfluoro-1-propanesulfonate (PFPrS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-9523-1.2	Potassium perfluoro-1-butanesulfonate (PFBS) ($^{13}C_4$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-9521-1.2	Potassium perfluoro-1-butanesulfonate (PFBS) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-9520-1.2	Sodium perfluoro-1-pentanesulfonate (PFPeS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-9526-1.2	Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}C_6$, 99%)	50 µg/mL in methanol	1.2 mL
CLM-11539-1.2	Potassium perfluoro-1-hexanesulfonate (PFHxS) (4,5,6-$^{13}C_3$, 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	Potassium perfluorohexanesulfonate (PFHxS) (unlabeled) mix of isomers	50 µg/mL in methanol	1.2 mL
ULM-9531-1.2	Sodium perfluoro-1-heptanesulfonate (PFHpS) (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
CLM-11540-1.2	Potassium perfluoro-1-octanesulfonate (PFOS) (1,2,3,4,5-$^{13}C_5$, 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-10655-1.2	Perfluorooctanesulfonate (PFOS) (unlabeled) mix of isomers	50 µg/ml in methanol	1.2 mL
ULM-9530-1.2	Sodium perfluoro-1-nonanesulfonate (PFNS) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-12322-1.2	Potassium perfluoro-1-decanesulfonate (PFDS) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-11635-1.2	Potassium perfluoro-1-undecanesulfonate (PFUnDS) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-11557-1.2	Potassium perfluoro-1-dodecanesulfonate (PFDoDS) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-11636-1.2	Potassium perfluoro-1-tridecanesulfonate (PFTrDS) (unlabeled)	50 µg/mL in methanol	1.2 mL

PFCA/PFAS Mixtures

Catalog No.	Description	Concentration	Amount
ES-5571	PFOS/PFOA Extraction Standard Mixture	in methanol	3 mL
	Labeled	**(ng/mL)***	
	Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_8$, 99%)	2000	
	Sodium perfluoro-1-octanesulfonate (PFOS) ($^{13}C_8$, 99%)	2000	
	**Gravimetric concentration is based on the salt form, where applicable.*		
ES-5572	PFOS/PFOA Injection Standard Mixture	in methanol	3 mL
	Labeled	**(ng/mL)***	
	Perfluoro-*n*-nonanoic acid (PFNA) ($^{13}C_9$, 99%)	2000	
	**Gravimetric concentration is based on the salt form, where applicable.*		
ES-5573	PFOS/PFOA Native Standard Mixture	in methanol	1.2 mL
	Unlabeled	**(ng/mL)***	
	Perfluoro-*n*-octanoic acid (PFOA)	5000	
	Sodium perfluoro-1-octanesulfonate (PFOS)	5000	
	**Gravimetric concentration is based on the salt form, where applicable.*		
ES-5649	PFOS/PFOA/PFHxS Labeled Standard Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Labeled	**(ng/mL)***	
	Potassium 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 salt form, where applicable.*		
ES-5648-A	PFOS/PFOA/PFHxS Native Analyte Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Potassium perfluoro-1-octanesulfonate (PFOS)	5000	
	Sodium perfluoro-*n*-octanoate (PFOA)	5000	
	Potassium perfluoro-1-hexanesulfonate (PFHxS)	5000	
	**Gravimetric concentration is based on the free acid, where applicable.*		
ES-5587-A	Perfluoroalkylcarboxylic acid (PFCA) C_4-C_{14} Native Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Sodium perfluoro-*n*-butyrate (PFBA)	2000	
	Sodium perfluoro-*n*-pentanoate (PFPeA)	2000	
	Sodium perfluoro-*n*-hexanoate (PFHxA)	2000	
	Perfluoro-*n*-heptanoic acid (PFHpA) unlabeled	2000	
	Sodium perfluoro-*n*-octanoate (PFOA)	2000	
	Perfluoro-*n*-nonanoic acid (PFNA)	2000	
	Sodium perfluoro-*n*-decanoate (PFDA)	2000	
	Sodium perfluoro-*n*-undecanoate (PFUA)	2000	
	Sodium perfluoro-*n*-dodecanoate (PFDoA)	2000	
	Perfluoro-*n*-tridecanoic acid (PFTrA)	2000	
	Perfluoro-*n*-tetradecanoic acid (PFTeA)	2000	
	**Gravimetric concentration is based on the salt form, where applicable.*		
ES-5576-A	Perfluoroalkylsulfonate (PFAS) C_4-C_{10} Native Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Potassium perfluoro-1-butanesulfonate (PFBS)	5000	
	Sodium perfluoro-1-pentanesulfonate (PFPeS)	5000	
	Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	5000	
	Sodium perfluoro-1-heptanesulfonate (PFHpS)	5000	
	Potassium perfluoro-1-octanesulfonate (PFOS)	5000	
	Sodium perfluoro-1-nonanesulfonate (PFNS)	5000	
	Potassium perfluoro-1-decanesulfonate (PFDS)	5000	
	**Gravimetric concentration is based on the free acid, where applicable.*		

Ultrashort-Chain (USC) PFAS

Catalog No.	Description	Concentration	Amount
CDLM-7943-1.2	Sodium monofluoroacetate (MFA) ($^{13}C_2$, 99%; 2,2-D_2, 98%)	1 mg/mL in water	1.2 mL
ULM-9674-1.2	Sodium monofluoroacetate (MFA) (unlabeled)	1 mg/mL in water	1.2 mL
CLM-11964-1.2	Sodium difluoroacetate (DFA) ($^{13}C_2$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11934-1.2	Sodium difluoroacetate (DFA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11046-1.2	Sodium trifluoroacetate (TFA) ($^{13}C_2$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11087-1.2	Sodium trifluoroacetate (TFA) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11324-A-1.2	Perfluoropropanoic acid (PFPrA) ($^{13}C_3$,99%)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
ULM-11323-A-1.2	Perfluoropropanoic acid (PFPrA) (unlabeled)	50 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
CLM-11766-1.2	Potassium trifluoromethanesulfonate (TFMS) (^{13}C, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11678-1.2	Sodium trifluoromethansulfonate (TFMS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11679-1.2	Potassium perfluoroethanesulfonate (PFEtS) ($^{13}C_2$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11676-1.2	Sodium perfluoroethanesulfonate (PFEtS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11677-1.2	Potassium perfluoro-1-propanesulfonate (PFPrS) ($^{13}C_3$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-11655-1.2	Sodium perfluoro-1-propanesulfonate (PFPrS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CNLM-11913-1.2	Potassium bis(trifluoromethanesulfonyl)imide (TFSI) ($^{13}C_2$, 99%; ^{15}N, 98%)	100 µg/mL in methanol	1.2 mL
ULM-11742-1.2	Lithium bis(trifluoromethanesulfonyl)imide (TFSI) (unlabeled)	100 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

ES-5676	Method 563 Native Analyte PDS	in methanol (with 4 molar equivalents NaOH)	1.2 mL

Unlabeled	(ng/mL)*
Sodium trifluoroacetate (TFA)	10,000
Perfluoropropanoic acid (PFPrA)	4000
Sodium trifluoromethanesulfonate (TFMS)	1000
Sodium perfluoroethanesulfonate (PFEtS)	1000
Sodium perfluoro-1-propanesulfonate (PFPrS)	1000
Lithium bis(trifluoromethanesulfonyl)imide (TFSI)	500
Sodium perfluoro-2-methoxyacetic acid (PFMOAA)	10,000

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

ES-9470	TFA/PFPrA Labeled Standard Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL

Labeled	(ng/mL)*
Sodium trifluoroacetate (TFA) ($^{13}C_2$, 99%)	2000
Perfluoropropanoic acid (PFPrA) ($^{13}C_3$, 99%)	2000

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

Ultrashort-Chain (USC) PFAS

Catalog No.	Description	Concentration	Amount
ES-9468	ASTM D8628 Native Analyte Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Sodium trifluoroacetate (TFA)	20,000	
	Perfluoropropanoic acid (PFPrA)	4000	
	Sodium trifluoromethanesulfonate (TFMS)	2000	
	Sodium perfluoroethanesulfonate (PFEtS)	1000	
	Sodium perfluoro-1-propanesulfonate (PFPrS)	1000	
	**Gravimetric concentration is based on the free acid, where applicable.*		
ES-9469	ASTM D8628 EIS Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Labeled	**(ng/mL)***	
	Sodium trifluoroacetate (TFA) ($^{13}C_2$, 99%)	2000	
	Perfluoropropanoic acid (PFPrA) ($^{13}C_3$, 99%)	2000	
	Potassium trifluoromethanesulfonate (TFMS) (^{13}C, 99%)	2000	
	Potassium perfluoroethanesulfonate (PFEtS) ($^{13}C_2$, 99%)	2000	
	Potassium perfluoro-1-propanesulfonate (PFPrS) ($^{13}C_3$, 99%)	2000	
	**Gravimetric concentration is based on the free acid, where applicable.*		
ES-5670	PARC 10 PFAS Native Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Sodium trifluoroacetate (TFA)	2000	
	Perfluoropropanoic acid (PFPrA)	2000	
	Sodium perfluoro-*n*-butyrate (PFBA)	2000	
	Sodium perfluoro-*n*-pentanoate (PFPeA)	2000	
	Sodium perfluoro-*n*-hexanoate (PFHxA)	2000	
	Sodium trifluoromethanesulfonate (TFMS)	2000	
	Sodium perfluoroethanesulfonate (PFEtS)	2000	
	Sodium perfluoro-1-propanesulfonate (PFPrS)	2000	
	Potassium perfluoro-1-butanesulfonate (PFBS)	2000	
	Sodium perfluoro-1-pentanesulfonate (PFPeS)	2000	
	**Gravimetric concentration is based on the free acid, where applicable.*		

TOP Assay Oxidation Monitoring Surrogates

Catalog No.	Description	Concentration	Amount
CLM-11722-1.2	Perfluoroheptanesulfonamide (PFHpSA) (5,6,7-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
CLM-11723-1.2	Sodium perfluoro-*n*-heptanoate (PFHpA) (5,6,7-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
CLM-11724-1.2	Perfluoro-*n*-nonanoic acid (PFNA) (7,8,9-$^{13}C_3$, 99%)	100 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL

Fluoroethers and Polyethers

Catalog No.	Description	Concentration	Amount
CLM-11543-1.2	Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA) "GenX" (propoxy-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-11542-1.2	Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA) "GenX" (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-11280-A-1.2	Dodecafluoro-3*H*-4,8-dioxanonanoic acid (DONA) (unlabeled)	100 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
ULM-10843-1.2	Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS) (F53B Major) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-10844-1.2	Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS) (F53B Minor) (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)	50 µg/mL in methanol	1.2 mL
ULM-11226-1.2	Perfluoro(3,5-dioxahexanoic) acid (PFO2HxA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-12320-1.2	Perfluoro-2-methoxypropanoic acid (PMPA), sodium salt (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-12321-1.2	Perfluoro-2-ethoxypropanoic acid (PEPA) (unlabeled)	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-A-1.2	Perfluoro-3-methoxypropanoic acid (PFMPA) (unlabeled)	100 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
ULM-10739-1.2	Perfluoro-4-methoxybutanoic acid (PFMBA) (unlabeled)	50 µg/mL in methanol	1.2 mL
ULM-10734-A-1.2	Perfluoro-3,6-dioxaheptanoic acid (PFDHA) (unlabeled)	100 µg/mL in methanol (with 4 molar equivalents NaOH)	1.2 mL
ULM-11128-1.2	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA) (unlabeled)	50 µg/mL in methanol	1.2 mL

Fluorotelomer Sulfonates (FTS)

Catalog No.	Description	Concentration	Amount
CDLM-10753-1.2	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	50 µg/mL in methanol	1.2 mL
ULM-10757-1.2	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CDLM-10752-1.2	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	50 µg/mL in methanol	1.2 mL
ULM-10756-1.2	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CDLM-10751-1.2	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	50 µg/mL in methanol	1.2 mL
ULM-10755-1.2	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS) (unlabeled)	50 µg/mL in methanol	1.2 mL
CDLM-11820-1.2	Potassium 1*H*,1*H*,2*H*,2*H*-perfluoro-1-dodecanesulfonate (10:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	50 µg/mL in methanol	1.2 mL
ULM-10754-1.2	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS) (unlabeled)	50 µg/mL in methanol	1.2 mL

ES-5661	Fluorotelomer Sulfonates (FTS) Labeled Standard Mixture	in methanol	1.2 mL
ES-5661-2X	Fluorotelomer Sulfonates (FTS) Labeled Standard Mixture (2x stock)	in methanol	1.2 mL

Labeled	ES-5661 (ng/mL)*	ES-5661-2X (ng/mL)*
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000	2000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000	2000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS) ($^{13}C_2$, 99%: D_4, 98%)	1000	2000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000	2000

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

ES-5662	Fluorotelomer Sulfonates (FTS) Native Standard Mixture	in methanol	1.2 mL

Unlabeled	(ng/mL)*
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS)	1000

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

Fluorotelomer Acids (FTA)

Catalog No.	Description	Concentration	Amount
ULM-10725-1.2	2*H*,2*H*-Perfluorooctanoic acid (6:2 FTA) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-10726-1.2	2*H*,2*H*-Perfluorodecanoic acid (8:2 FTA) (unlabeled)	100 µg/mL in methanol	1.2 mL
CLM-11822-1.2	2*H*,2*H*,3*H*,3*H*-Perfluorohexanoic acid (3:3 FTCA) (1,2,3-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-11532-1.2	2*H*,2*H*,3*H*,3*H*-Perfluorohexanoic acid (3:3 FTCA) (unlabeled)	100 µg/mL in methanol	1.2 mL
CLM-11823-1.2	2*H*,2*H*,3*H*,3*H*-Perfluorooctanoic acid (5:3 FTCA) (1,2,3-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-11533-1.2	2*H*,2*H*,3*H*,3*H*-Perfluorooctanoic acid (5:3 FTCA) (unlabeled)	100 µg/mL in methanol	1.2 mL
CLM-11824-1.2	2*H*,2*H*,3*H*,3*H*-Perfluorodecanoic acid (7:3 FTCA) (1,2,3-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-11534-1.2	2*H*,2*H*,3*H*,3*H*-Perfluorodecanoic acid (7:3 FTCA) (unlabeled) mix of isomers	100 µg/mL in methanol	1.2 mL

Fluorotelomer Alcohols (FTOH)

Catalog No.	Description	Concentration	Amount
ULM-10723-1.2	1*H*,1*H*,2*H*,2*H*-Perfluoro-1-hexanol (4:2 FTOH) (unlabeled)	100 µg/mL in methanol	1.2 mL
CDLM-10709-1.2	1*H*,1*H*,2*H*,2*H*-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	1*H*,1*H*,2*H*,2*H*-Perfluoro-1-octanol (6:2 FTOH) (unlabeled)	100 µg/mL in methanol	1.2 mL
CDLM-10712-1.2	1*H*,1*H*,2*H*,2*H*-Perfluoro-1-decanol (8:2 FTOH) (1,2-$^{13}C_2$, 99%; 1,1,2,2-D_4, 98%)	50 µg/mL in methanol	1.2 mL
ULM-10727-1.2	1*H*,1*H*,2*H*,2*H*-Perfluoro-1-decanol (8:2 FTOH) (unlabeled)	100 µg/mL in methanol	1.2 mL
CDLM-10715-1.2	1*H*,1*H*,2*H*,2*H*-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	1*H*,1*H*,2*H*,2*H*-Perfluoro-1-dodecanol (10:2 FTOH) (unlabeled)	50 µg/mL in methanol	1.2 mL

Fluorotelomer Acrylates (FTAcr)

Catalog No.	Description	Concentration	Amount
CDLM-11770-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorodecyl acrylate (8:2-FTAcr) ($^{13}C_2$, 99%; D_4, 98%) w/~200 ppm MeHQ	50 µg/mL in methanol	1.2 mL
ULM-11771-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorodecyl acrylate (8:2-FTAcr) (unlabeled) w/~200 ppm MeHQ	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-11722-1.2	Perfluoroheptanesulfonamide (PFHpSA) (5,6,7-$^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
CLM-11007-1.2	Perfluorooctanesulfonamide (PFOSA) ($^{13}C_8$, 99%)	50 µg/mL in methanol	1.2 mL
ULM-10977-A-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	*N*-Methylperfluorooctanesulfonamide (*N*-MeFOSA) (D_3, 98%)	100 µg/mL in methanol	1.2 mL
ULM-10779-1.2	*N*-Methylperfluorooctanesulfonamide (*N*-MeFOSA) (unlabeled) mix of isomers	100 µg/mL in methanol	1.2 mL
DLM-10741-1.2	*N*-Ethylperfluorooctanesulfonamide (*N*-EtFOSA) (D_5, 98%)	100 µg/mL in methanol	1.2 mL
ULM-10780-1.2	*N*-Ethylperfluorooctanesulfonamide (*N*-EtFOSA) (unlabeled) mix of isomers	100 µg/mL in methanol	1.2 mL

Perfluorooctanesulfonamidoacetic Acids (FOSAA)

Catalog No.	Description	Concentration	Amount
DLM-10663-1.2	*N*-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) (*N*-methyl-D_3, 98%)	50 µg/mL in methanol	1.2 mL
ULM-10656-1.2	*N*-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) (unlabeled) mix of isomers	50 µg/mL in methanol	1.2 mL
DLM-10664-1.2	*N*-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) (*N*-ethyl-D_5, 98%)	50 µg/mL in methanol	1.2 mL
ULM-10657-1.2	*N*-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) (unlabeled) mix of isomers	50 µg/mL in methanol	1.2 mL

Perfluorooctanesulfonamido Ethanols (FOSE)

Catalog No.	Description	Concentration	Amount
DLM-11035-1.2	*N*-Methylperfluorooctanesulfonamidoethanol (*N*-MeFOSE) (*N*-methyl-D_3, 98%)	50 µg/mL in methanol	1.2 mL
ULM-11034-1.2	*N*-Methylperfluorooctanesulfonamidoethanol (*N*-MeFOSE) (unlabeled) mix of isomers	50 µg/mL in methanol	1.2 mL
DLM-11037-1.2	*N*-Ethylperfluorooctanesulfonamidoethanol (*N*-EtFOSE) (*N*-ethyl-D_5, 98%)	50 µg/mL in methanol	1.2 mL
ULM-11036-1.2	*N*-Ethylperfluorooctanesulfonamidoethanol (*N*-EtFOSE) (unlabeled) mix of isomers	50 µg/mL in methanol	1.2 mL

Fluorotelomer Iodides (FTI)

Catalog No.	Description	Concentration	Amount
CDLM-10182-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorohexyl iodide (4:2 FTI) (1,2-$^{13}C_2$, 99%; 1,1,2,2-D_4, 98%)	50 µg/mL in acetonitrile	1.2 mL
ULM-11930-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorohexyl iodide (4:2 FTI) (unlabeled)	50 µg/mL in acetonitrile	1.2 mL
CDLM-10183-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorooctyl iodide (6:2 FTI) (1,2-$^{13}C_2$, 99%; 1,1,2,2-D_4, 98%)	50 µg/mL in acetonitrile	1.2 mL
ULM-11931-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorooctyl iodide (6:2 FTI) (unlabeled)	50 µg/mL in acetonitrile	1.2 mL
CDLM-10184-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorodecyl iodide (8:2 FTI) (1,2-$^{13}C_2$, 99%; 1,1,2,2-D_4, 98%)	50 µg/mL in acetonitrile	1.2 mL
ULM-11932-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorodecyl iodide (8:2 FTI) (unlabeled)	50 µg/mL in acetonitrile	1.2 mL
CDLM-10185-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorododecyl iodide (10:2 FTI) (1,2-$^{13}C_2$, 99%; 1,1,2,2-D_4, 98%)	50 µg/mL in acetonitrile	1.2 mL
ULM-11933-1.2	1*H*,1*H*,2*H*,2*H*-Perfluorododecyl iodide (10:2 FTI) (unlabeled)	50 µg/mL in acetonitrile	1.2 mL

Other Fluorinated Compounds

Catalog No.	Description	Concentration	Amount
ULM-11073-1.2	Bis(1*H*,1*H*,2*H*,2*H*-perfluorodecyl) phosphate (8:2-DiPAP) (unlabeled)	50 µg/mL in methanol	1.2 mL
CLM-11260-1.2	2,2-Difluoromalonic acid (MMF), sodium salt ($^{13}C_3$, 99%)	100 µg/mL in methanol	1.2 mL
ULM-12303-1.2	2,2-Difluoromalonic acid (MMF), sodium salt (unlabeled)	100 µg/mL in methanol	1.2 mL

Bile Acid Standards

Catalog No.	Description	Concentration	Amount
ULM-9942-0.01	Glycochenodeoxycholic acid (GCDCA), sodium salt (unlabeled)	neat	0.01 g
ULM-9943-0.05	Taurodeoxycholic acid (TDCA), sodium salt, hydrate (unlabeled)	neat	0.05 g
ULM-9561-0.01	Taurochenodeoxycholic acid (TCDCA), sodium salt (unlabeled)	neat	0.01 g
ULM-9885-0.01	Tauroursodeoxycholic acid (TUDCA), dihydrate (unlabeled)	neat	0.01 g

Note: Additional standards and mixtures are available (labeled and unlabeled). Please visit isotope.com for more information.

EPA Method 1633A Mixtures

Catalog No.	Description	Concentration	Amount
ES-5667	PFAS 40 Multi-Class Native Standard Solution	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Sodium perfluoro-*n*-butyrate (PFBA)	2000	
	Sodium perfluoro-*n*-pentanoate (PFPeA)	1000	
	Sodium perfluoro-*n*-hexanoate (PFHxA)	500	
	Perfluoro-*n*-heptanoic acid (PFHpA)	500	
	Sodium perfluoro-*n*-octanoate (PFOA)	500	
	Perfluoro-*n*-nonanoic acid (PFNA)	500	
	Sodium perfluoro-*n*-decanoate (PFDA)	500	
	Sodium perfluoro-*n*-undecanoate (PFUA)	500	
	Sodium perfluoro-*n*-dodecanoate (PFDoA)	500	
	Perfluoro-*n*-tridecanoic acid (PFTrDA)	500	
	Perfluoro-*n*-tetradecanoic acid (PFTeDA)	500	
	Potassium perfluoro-1-butanesulfonate (PFBS)	500	
	Sodium perfluoro-1-pentanesulfonate (PFPeS)	500	
	Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	500	
	Sodium perfluoro-1-heptanesulfonate (PFHpS)	500	
	Perfluorooctanesulfonate (PFOS) mix of isomers	500	
	Sodium perfluoro-1-nonanesulfonate (PFNS)	500	
	Potassium perfluoro-1-decanesulfonate (PFDS)	500	
	Potassium perfluoro-1-dodecanesulfonate (PFDoDS)	500	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS)	2000	
	Perfluorooctanesulfonamide (PFOSA) mix of isomers	500	
	N-Methylperfluorooctanesulfonamide (*N*-MeFOSA) mix of isomers	500	
	N-Ethylperfluorooctanesulfonamide (*N*-EtFOSA) mix of isomers	500	
	N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) mix of isomers	500	
	N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) mix of isomers	500	
	N-Methylperfluorooctanesulfonamidoethanol (*N*-MeFOSE) mix of isomers	5000	
	N-Ethylperfluorooctanesulfonamidoethanol (*N*-EtFOSE) mix of isomers	5000	
	Sodium tetrafluoro-2-(heptafluoropropoxy) propanoic acid (HFPO-DA) "GenX"	2000	
	Dodecafluoro-3*H*-4,8-dioxanonanoic acid (DONA)	2000	
	Perfluoro-3-methoxypropanoic acid (PFMPA)	1000	
	Perfluoro-4-methoxybutanoic acid (PFMBA)	1000	
	Perfluoro-3,6-dioxaheptanoic acid (PFDHA)	1000	
	Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS) (F53B Major)	2000	
	Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS) (F53B Minor)	2000	
	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	1000	
	2*H*,2*H*,3*H*,3*H*-Perfluorohexanoic acid (3:3 FTCA)	2500	
	2*H*,2*H*,3*H*,3*H*-Perfluorooctanoic acid (5:3 FTCA)	12,500	
	2*H*,2*H*,3*H*,3*H*-Perfluorodecanoic acid (7:3 FTCA) mix of isomers	12,500	

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

Catalog No.	Description	Concentration	Amount
ES-5669	8-Component PFAS 1633 Supplemental Mix	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Perfluoropropanoic acid (PFPrA)	8000	
	Perfluoro-*n*-hexadecanoic acid (PFHxDA)	2000	
	Perfluoro-*n*-octadecanoic acid (PFODA)	2000	
	Sodium perfluoro-1-propanesulfonate (PFPrS)	2000	
	Perfluorobutanesulfonamide (PFBSA)	2000	
	Perfluorohexanesulfonamide (PFHxSA)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS)	2000	
	Lithium bis(trifluoromethanesulfonyl)imide (TFSI)	2000	

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

EPA Method 1633A Mixtures

Catalog No.	Description	Concentration	Amount
ES-5658	EPA Method 1633A Expanded Extracted Internal Standard (EIS)	in methanol (with 4 molar equivalents NaOH)	1.2 mL
ES-5658-5ML	EPA Method 1633A Expanded Extracted Internal Standard (EIS)	in methanol (with 4 molar equivalents NaOH)	5 mL

Labeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA) ($^{13}C_4$, 99%)	2000
Sodium perfluoro-*n*-pentanoate (PFPeA) (pentanoyl-$^{13}C_5$, 99%)	1000
Sodium perfluoro-*n*-hexanoate (PFHxA) ($^{13}C_6$, 99%)	500
Sodium perfluoro-*n*-heptanoate (PFHpA) ($^{13}C_7$, 99%)	500
Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_8$, 99%)	500
Perfluoro-*n*-nonanoic acid (PFNA) ($^{13}C_9$, 99%)	250
Sodium perfluoro-*n*-decanoate (PFDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	250
Sodium perfluoro-*n*-undecanoate (PFUA) ($^{13}C_9$, 99%)	250
Sodium perfluoro-*n*-dodecanoate (PFDoA) ($^{13}C_{12}$, 99%)	250
Sodium perfluoro-*n*-tridecanoate (PFTrDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	250
Sodium perfluoro-*n*-tetradecanoate (PFTeDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	250
Potassium perfluoro-1-butanesulfonate (PFBS) ($^{13}C_4$, 99%)	500
Potassium perfluoro-1-hexanesulfonate (PFHxS) (4,5,6-$^{13}C_3$, 99%)	500
Potassium perfluoro-1-octanesulfonate (PFOS) ($^{13}C_8$, 99%)	500
Sodium 1*H*,1*H*,2*H*,2*H*-perfluoro-1-hexanesulfonate (4:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluoro-1-octanesulfonate (6:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluoro-1-decanesulfonate (8:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Perfluorooctanesulfonamide (PFOSA) ($^{13}C_8$, 99%)	500
N-Methylperfluorooctanesulfonamide (*N*-MeFOSA) (D_3, 98%)	500
N-Ethylperfluorooctanesulfonamide (*N*-EtFOSA) (D_5, 98%)	500
N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) (*N*-methyl-D_3, 98%)	1000
N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) (*N*-ethyl-D_5, 98%)	1000
N-Methylperfluorooctanesulfonamidoethanol (*N*-MeFOSE) (*N*-methyl-D_3, 98%)	5000
N-Ethylperfluorooctanesulfonamidoethanol (*N*-EtFOSE) (*N*-ethyl-D_5, 98%)	5000
Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate "GenX" (HFPO-DA) (propoxy-$^{13}C_3$, 99%)	2000
2*H*,2*H*,3*H*,3*H*-Perfluorohexanoic acid (3:3-FTCA) (1,2,3-$^{13}C_3$, 99%)	2500
2*H*,2*H*,3*H*,3*H*-Perfluorooctanoic acid (5:3-FTCA) (1,2,3-$^{13}C_3$, 99%)	6250
2*H*,2*H*,3*H*,3*H*-Perfluorodecanoic acid (7:3-FTCA) (1,2,3-$^{13}C_3$, 99%)	6250

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

ES-5659	EPA Method 1633A Non-Extracted Internal Standard (NIS)	in methanol (with 4 molar equivalents NaOH)	1.2 mL
ES-5659-5ML	EPA Method 1633A Non-Extracted Internal Standard (NIS)	in methanol (with 4 molar equivalents NaOH)	5 mL

Labeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA) (2,3,4-$^{13}C_3$, 99%)	1000
Sodium perfluoro-*n*-hexanoate (PFHxA) (4,5,6-$^{13}C_3$, 99%)	500
Perfluoro-*n*-octanoic acid (PFOA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	500
Sodium perfluoro-*n*-nonanoate (PFNA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	250
Sodium perfluoro-*n*-decanoate (PFDA) ($^{13}C_9$, 99%)	250
Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}C_6$, 99%)	500
Potassium perfluoro-1-octanesulfonate (PFOS) (1,2,3,4,5-$^{13}C_5$, 99%)	500

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

EPA Method 533 Mixtures

Catalog No.	Description	Concentration	Amount
ES-5654	EPA Method 533 Native Analyte PDS	in methanol (with 4 molar equivalents NaOH)	1.2 mL

Unlabeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA)	1000
Sodium perfluoro-*n*-pentanoate (PFPeA)	1000
Sodium perfluoro-*n*-hexanoate (PFHxA)	1000
Perfluoro-*n*-heptanoic acid (PFHpA)	1000
Perfluoro-*n*-octanoate (PFOA)	1000
Perfluoro-*n*-nonanoic acid (PFNA)	1000
Sodium perfluoro-*n*-decanoate (PFDA)	1000
Sodium perfluoro-*n*-undecanoate (PFUA)	1000
Sodium perfluoro-*n*-dodecanoate (PFDoA)	1000
Potassium perfluoro-1-butanesulfonate (PFBS)	1000
Sodium perfluoro-1-pentanesulfonate (PFPS)	1000
Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	1000
Sodium perfluoro-1-heptanesulfonate (PFHpS)	1000
Perfluorooctanesulfonate (PFOS) mix of isomers	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS)	1000
Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA) "GenX"	1000
Dodecafluoro-3*H*-4,8-dioxanonanoic acid (DONA)	1000
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS) (F53B Major)	1000
Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS) (F53B Minor)	1000
Perfluoro-3-methoxypropanoic acid (PFMPA)	1000
Perfluoro-4-methoxybutanoic acid (PFMBA)	1000
Perfluoro-3,6-dioxaheptanoic acid (PFDHA)	1000
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1000

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

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

Unlabeled	(ng/mL)*
N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) mix of isomers	2000
N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) mix of isomers	2000
Perfluoro-*n*-tridecanoic acid (PFTrDA)	2000
Perfluoro-*n*-tetradecanoic acid (PFTeDA)	2000

**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 equivalents NaOH)	1.2 mL
	Labeled	**(ng/mL)***	
	Sodium perfluoro-*n*-butyrate (PFBA) ($^{13}C_4$, 99%)	500	
	Sodium perfluoro-*n*-pentanoate (PFPeA) ($^{13}C_5$, 99%)	500	
	Sodium perfluoro-*n*-hexanoate (PFHxA) ($^{13}C_6$, 99%)	500	
	Sodium perfluoro-*n*-heptanoate (PFHpA) ($^{13}C_7$, 99%)	500	
	Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_8$, 99%)	500	
	Perfluoro-*n*-nonanoic acid (PFNA) ($^{13}C_9$, 99%)	500	
	Sodium perfluoro-*n*-decanoate (PFDA) ($^{13}C_9$, 99%)	500	
	Sodium perfluoro-*n*-undecanoate (PFUA) ($^{13}C_9$, 99%)	500	
	Sodium perfluoro-*n*-dodecanoate (PFDoA) ($^{13}C_{12}$, 99%)	500	
	Potassium perfluoro-1-butanesulfonate (PFBS) ($^{13}C_4$, 99%)	500	
	Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}C_6$, 99%)	500	
	Potassium perfluoro-1-octanesulfonate (PFOS) ($^{13}C_8$, 99%),	500	
	Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA) "GenX" ($^{13}C_3$, 99%)	500	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS) ($^{13}C_2$, 99%: D_4, 98%)	2000	

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

ES-5655	EPA Method 533 Isotope Performance Standard PDS	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Labeled	**(ng/mL)***	
	Sodium perfluoro-*n*-butyrate (PFBA) (2,3,4-$^{13}C_3$, 99%)	1000	
	Perfluoro-*n*-octanoic acid (PFOA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	1000	
	Potassium perfluoro-1-octanesulfonate (PFOS) (1,2,3,4,5-$^{13}C_5$, 99%)	3000	

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

EPA Method 537.1 Mixtures

Catalog No.	Description	Concentration	Amount
ES-5631-A	Method 537.1 Analyte Primary Dilution Standard (PDS)	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Sodium perfluoro-*n*-hexanoate (PFHxA)	2000	
	Perfluoro-*n*-heptanoic acid (PFHpA)	2000	
	Sodium perfluoro-*n*-octanoate (PFOA)	2000	
	Perfluoro-*n*-nonanoic acid (PFNA)	2000	
	Sodium perfluoro-*n*-decanoate (PFDA)	2000	
	Sodium perfluoro-*n*-undecanoate (PFUA)	2000	
	Sodium perfluoro-*n*-dodecanoate (PFDoA)	2000	
	Perfluoro-*n*-tridecanoic acid (PFTrDA)	2000	
	Perfluoro-*n*-tetradecanoic acid (PFTeDA)	2000	
	Potassium perfluoro-1-butanesulfonate (PFBS)	2000	
	Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	2000	
	Perfluorooctanesulfonate (PFOS) mix of isomers	2000	
	N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) mix of isomers	2000	
	N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) mix of isomers	2000	
	Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA) "GenX"	2000	
	Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS) (F53B Major)	2000	
	Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS) (F53B Minor)	2000	
	Dodecafluoro-3*H*-4,8-dioxanonanoic acid (DONA)	2000	
	**Gravimetric concentration is based on the free acid, where applicable.*		
ES-5610-A	Method 537.1 Internal Standard Primary Dilution Standard (ISPDS)	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Labeled	**(ng/mL)***	
	Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_8$, 99%)	1000	
	Potassium perfluoro-1-octanesulfonate (PFOS) ($^{13}C_8$, 99%)	3000	
	N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) (*N*-methyl-D_3, 98%)	4000	
	**Gravimetric concentration is based on the free acid, where applicable.*		
ES-5632-A	Method 537.1 Surrogate Primary Dilution Standard (SUR PDS)	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Labeled	**(ng/mL)***	
	Sodium perfluoro-*n*-hexanoate (PFHxA) ($^{13}C_6$, 99%)	1000	
	Sodium perfluoro-*n*-decanoate (PFDA) ($^{13}C_9$, 99%)	1000	
	N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) (*N*-ethyl-D_5, 98%)	4000	
	Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA) "GenX" ($^{13}C_3$, 99%)	1000	
	**Gravimetric concentration is based on the free acid, where applicable.*		

EPA Method 8327 Mixtures

Catalog No.	Description	Concentration	Amount
ES-5642	Method 8327 Target Analyte Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Sodium perfluoro-*n*-butyrate (PFBA)	2000	
	Sodium perfluoro-*n*-pentanoate (PFPeA)	2000	
	Sodium perfluoro-*n*-hexanoate (PFHxA)	2000	
	Perfluoro-*n*-heptanoic acid (PFHpA)	2000	
	Sodium perfluoro-*n*-octanoate (PFOA)	2000	
	Perfluoro-*n*-nonanoic acid (PFNA)	2000	
	Sodium perfluoro-*n*-decanoate (PFDA)	2000	
	Sodium perfluoro-*n*-undecanoate (PFUA)	2000	
	Sodium perfluoro-*n*-dodecanoate (PFDoA)	2000	
	Perfluoro-*n*-tridecanoic acid (PFTrDA)	2000	
	Perfluoro-*n*-tetradecanoic acid (PFTeDA)	2000	
	Potassium perfluoro-1-butanesulfonate (PFBS)	2000	
	Sodium perfluoro-1-pentanesulfonate (PFPeS)	2000	
	Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	2000	
	Sodium perfluoro-1-heptanesulfonate (PFHpS)	2000	
	Perfluorooctanesulfonic acid (PFOS) mix of isomers	2000	
	Sodium perfluoro-1-nonanesulfonate (PFNS)	2000	
	Potassium perfluoro-1-decanesulfonate (PFDS)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS)	2000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS)	2000	
	Perfluorooctanesulfonamide (PFOSA) mix of isomers	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.*

Catalog No.	Description	Concentration	Amount
ES-5643-A	Method 8327 Surrogate Spiking Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Labeled	**(ng/mL)***	
	Sodium perfluoro-*n*-butyrate (PFBA) (2,3,4-$^{13}C_3$, 99%)	1000	
	Sodium perfluoro-*n*-pentanoate (PFPeA) (pentanoyl-$^{13}C_5$, 99%)	1000	
	Sodium perfluoro-*n*-hexanoate (PFHxA) ($^{13}C_6$, 99%)	1000	
	Sodium perfluoro-*n*-heptanoate (PFHpA) (heptanoyl-$^{13}C_7$, 99%)	1000	
	Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_8$, 99%)	1000	
	Perfluoro-*n*-nonanoic acid (PFNA) ($^{13}C_9$, 99%)	1000	
	Sodium perfluoro-*n*-decanoate (PFDA) ($^{13}C_9$, 99%)	1000	
	Sodium perfluoro-*n*-undecanate (PFUA) ($^{13}C_9$, 99%)	1000	
	Sodium perfluoro-*n*-dodecanoate (PFDoA) (dodecanoyl-$^{13}C_{12}$, 99%)	1000	
	Sodium perfluoro-*n*-tetradecanoate (PFTeDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	1000	
	Potassium perfluoro-1-butanesulfonate (PFBS) ($^{13}C_4$, 99%)	1000	
	Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}C_6$, 99%)	1000	
	Potassium perfluoro-1-octanesulfonate (PFOS) ($^{13}C_8$, 99%)	1000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS) ($^{13}C_2$, 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.*

European Union Drinking Water Directive 2020/2184

Catalog No.	Description	Concentration	Amount
ES-9465	EU Drinking Water Directive PFAS Native Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL

Unlabeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA)	2000
Sodium perfluoro-*n*-pentanoate (PFPeA)	2000
Sodium perfluoro-*n*-hexanoate (PFHxA)	2000
Perfluoro-*n*-heptanoic acid (PFHpA)	2000
Sodium perfluoro-*n*-octanoate (PFOA)	2000
Perfluoro-*n*-nonanoic acid (PFNA)	2000
Sodium perfluoro-*n*-decanoate (PFDA)	2000
Sodium perfluoro-*n*-undecanoate (PFUA)	2000
Sodium perfluoro-*n*-dodecanoate (PFDoA)	2000
Perfluoro-*n*-tridecanoic acid (PFTrDA)	2000
Potassium perfluoro-1-butanesulfoante (PFBS)	2000
Sodium perfluoro-1-pentanesulfonate (PFPeS)	2000
Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	2000
Sodium perfluoro-1-heptanesulfonate (PFHpS)	2000
Perfluorooctanesulfonic acid (PFOS) mix of isomers	2000
Sodium perfluoro-1-nonanesulfonate (PFNS)	2000
Potassium perfluoro-1-decanesulfonate (PFDS)	2000
Potassium perfluoro-1-undecanesulfonate (PFUnDS)	2000
Potassium perfluoro-1-dodecanesulfonate (PFDoDS)	2000
Potassium perfluoro-1-tridecanesulfonate (PFTrDS)	2000

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

Custom PFAS Mixtures

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

Labeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA) ($^{13}C_3$, 99%)	1000
Sodium perfluoro-*n*-pentanoate (PFPeA) ($^{13}C_5$, 99%)	1000
Sodium perfluoro-*n*-hexanoate (PFHxA) ($^{13}C_6$, 99%)	1000
Sodium perfluoro-*n*-heptanoate (PFHpA) ($^{13}C_7$, 99%)	1000
Perfluoro-*n*-octanoic acid (PFOA) ($^{13}C_8$, 99%)	1000
Perfluoro-*n*-nonanoic acid (PFNA) ($^{13}C_9$, 99%)	1000
Sodium perfluoro-*n*-decanoate (PFDA) ($^{13}C_9$, 99%)	1000
Sodium perfluoro-*n*-undecanoate (PFUA) ($^{13}C_9$, 99%)	1000
Sodium perfluoro-*n*-dodecanoate (PFDoA) ($^{13}C_{12}$, 99%)	1000
Sodium perfluoro-*n*-tetradecanoate (PFTeDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	1000
Sodium perfluoro-*n*-hexadecanoate (PFHxDA) (1,2,3,4-$^{13}C_4$, 99%)	1000
Potassium perfluoro-1-butanesulfonate (PFBS) ($^{13}C_4$, 99%)	1000
Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}C_6$, 99%)	1000
Potassium perfluoro-1-octanesulfonate (PFOS) ($^{13}C_8$, 99%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Perfluorooctanesulfonamide (PFOSA) ($^{13}C_8$, 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
Sodium tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA) "GenX" ($^{13}C_3$, 99%)	1000

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

Catalog No.	Description	Concentration	Amount
ES-5641-A	PFAS SIL Superfund Mixture 2	in methanol (with 4 molar equivalents NaOH)	1.2 mL

Labeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA) ($^{13}C_3$, 99%)	1000
Sodium perfluoro-*n*-pentanoate (PFPeA) ($^{13}C_5$, 99%)	1000
Sodium perfluoro-*n*-hexanoate (PFHxA) ($^{13}C_6$, 99%)	1000
Perfluoro-*n*-decanoic acid (PFDA) ($^{13}C_9$, 99%)	1000
Sodium perfluoro-*n*-undecanoate (PFUA) ($^{13}C_9$, 99%)	1000
Sodium perfluoro-*n*-dodecanoate (PFDoA) ($^{13}C_{12}$, 99%)	1000
Sodium perfluoro-*n*-tetradecanoate (PFTeDA) (1,2,3,4,5,6-$^{13}C_6$, 99%)	1000
Potassium perfluoro-1-butanesulfonate (PFBS) ($^{13}C_4$, 99%)	1000
Potassium perfluoro-1-hexanesulfonate (PFHxS) ($^{13}C_6$, 99%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS) ($^{13}C_2$, 99%; D_4, 98%)	1000
Perfluorooctanesulfonamide (PFOSA) ($^{13}C_8$, 99%)	1000

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

Custom PFAS Mixtures

Catalog No.	Description	Concentration	Amount
ES-5639-A	PFAS Superfund Mixture 1	in methanol (with 4 molar equivalents NaOH)	1.2 mL

Unlabeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA)	2000
Sodium perfluoro-*n*-pentanoate (PFPeA)	2000
Sodium perfluoro-*n*-hexanoate (PFHxA)	2000
Perfluoro-*n*-heptanoic acid (PFHpA)	2000
Perfluoro-*n*-octanoic acid (PFOA)	2000
Perfluoro-*n*-nonanoic acid (PFNA)	2000
Sodium perfluoro-*n*-decanoate (PFDA)	2000
Sodium perfluoro-*n*-undecanoate (PFUA)	2000
Sodium perfluoro-*n*-dodecanoate (PFDoA)	2000
Perfluoro-*n*-tetradecanoic acid (PFTeDA)	2000
Perfluoro-*n*-hexadecanoic acid (PFHxDA)	2000
Perfluoro-*n*-octadecanoic acid (PFODA)	2000
Potassium perfluoro-1-butanesulfonate (PFBS)	2000
Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	2000
Perfluorooctanesulfonate (PFOS) mix of isomers	2000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS)	2000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS)	2000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS)	2000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS)	2000
Perfluorooctanesulfonamide (PFOSA) mix of isomers	2000
N-Methylperfluorooctanesulfonamide (*N*-MeFOSA) mix of isomers	2000
N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) mix of isomers	2000
N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) mix of isomers	2000
Tetrafluoro-2-(heptafluoropropoxy) propanoic acid (HFPO-DA) "GenX"	2000

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

Custom PFAS Mixtures

Catalog No.	Description	Concentration	Amount
ES-5665-1.2	PFAS RM-41 Native Spiking Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
ES-5665	PFAS RM-41 Native Spiking Mixture	in methanol (with 4 molar equivalents NaOH)	5 mL

Unlabeled	(ng/mL)*
Sodium perfluoro-*n*-butyrate (PFBA)	1000
Sodium perfluoro-*n*-pentanoate (PFPeA)	1000
Sodium perfluoro-*n*-hexanoate (PFHxA)	1000
Perfluoro-*n*-heptanoic acid (PFHpA)	1000
Perfluoro-*n*-octanoic acid (PFOA)	1000
Perfluoro-*n*-nonanoic acid (PFNA)	1000
Sodium perfluoro-*n*-decanoate (PFDA)	1000
Sodium perfluoro-*n*-undecanoate (PFUA)	1000
Sodium perfluoro-*n*-dodecanoate (PFDoA)	1000
Perfluoro-*n*-tridecanoic acid (PFTrDA)	1000
Perfluoro-*n*-tetradecanoic acid (PFTeDA)	1000
Perfluoro-*n*-hexadecanoic acid (PFHxDA)	1000
Perfluoro-*n*-octadecanoic acid (PFODA)	1000
Sodium perfluoro-1-propanesulfonate (PFPrS)	1000
Potassium perfluoro-1-butanesulfonate (PFBS)	1000
Sodium perfluoro-1-pentanesulfonate (PFPeS)	1000
Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	1000
Sodium perfluoro-1-heptanesulfonate (PFHpS)	1000
Perfluorooctanesulfonate (PFOS) mix of isomers	1000
Sodium perfluoro-1-nonanesulfonate (PFNS)	1000
Potassium perfluoro-1-decanesulfonate (PFDS)	1000
Potassium perfluoro-1-dodecanesulfonate (PFDoDS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS)	1000
Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS)	1000
Perfluorooctanesulfonamide (PFOSA) mix of isomers	1000
N-Methylperfluorooctanesulfonamide (*N*-MeFOSA) mix of isomers	1000
N-Ethylperfluorooctanesulfonamide (*N*-EtFOSA) mix of isomers	1000
N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) mix of isomers	1000
N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) mix of isomers	1000
N-Methylperfluorooctanesulfonamidoethanol (*N*-MeFOSE) mix of isomers	1000
N-Ethylperfluorooctanesulfonamidoethanol (*N*-EtFOSE) mix of isomers	1000
Sodium tetrafluoro-2-(heptafluoropropoxy) propanoic acid (HFPO-DA) "GenX"	1000
Dodecafluoro-3*H*-4,8-dioxanonanoic acid (DONA)	1000
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS) (F53B Major)	1000
Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS) (F53B Minor)	1000
Perfluoro-3-methoxypropanoic acid (PFMPA)	1000
Perfluoro-4-methoxybutanoic acid (PFMBA)	1000
Perfluoro-3,6-dioxaheptanoic acid (PFDHA)	1000
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	1000

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

Custom PFAS Mixtures

Catalog No.	Description	Concentration	Amount
ES-5636-A	PFAS EF-28 Native Mixture	in methanol (with 4 molar equivalents NaOH)	1.2 mL
	Unlabeled	**(ng/mL)***	
	Sodium perfluoro-*n*-butyrate (PFBA)	1000	
	Sodium perfluoro-*n*-pentanoate (PFPeA)	1000	
	Sodium perfluoro-*n*-hexanoate (PFHxA)	1000	
	Perfluoro-*n*-heptanoic acid (PFHpA)	1000	
	Perfluoro-*n*-octanoic acid (PFOA)	1000	
	Perfluoro-*n*-nonanoic acid (PFNA)	1000	
	Sodium perfluoro-*n*-decanoate (PFDA)	1000	
	Sodium perfluoro-*n*-undecanoate (PFUA)	1000	
	Sodium perfluoro-*n*-dodecanoate (PFDoA)	1000	
	Perfluoro-*n*-tridecanoic acid (PFTrDA)	1000	
	Perfluoro-*n*-tetradecanoic acid (PFTeDA)	1000	
	Perfluoro-*n*-hexadecanoic acid (PFHxDA)	1000	
	Perfluoro-*n*-octadecanoic acid (PFODA)	1000	
	Potassium perfluoro-1-butanesulfonate (PFBS)	1000	
	Sodium perfluoro-1-pentanesulfonate (PFPeS)	1000	
	Potassium perfluorohexanesulfonate (PFHxS) mix of isomers	1000	
	Sodium perfluoro-1-heptanesulfonate (PFHpS)	1000	
	Sodium perfluoro-1-octanesulfonate (PFOS)	1000	
	Potassium perfluoro-1-decanesulfonate (PFDS)	1000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorohexanesulfonate (4:2 FTS)	1000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorooctanesulfonate (6:2 FTS)	1000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorodecanesulfonate (8:2 FTS)	1000	
	Sodium 1*H*,1*H*,2*H*,2*H*-perfluorododecanesulfonate (10:2 FTS)	1000	
	Perfluorooctanesulfonamide (PFOSA) mix of isomers	1000	
	N-Methylperfluorooctanesulfonamide (*N*-MeFOSA) mix of isomers	1000	
	N-Methylperfluorooctanesulfonamidoacetic acid (*N*-MeFOSAA) mix of isomers	1000	
	N-Ethylperfluorooctanesulfonamidoacetic acid (*N*-EtFOSAA) mix of isomers	1000	
	Bis(1*H*,1*H*,2*H*,2*H*-perfluorodecyl)phosphate (8:2-DiPAP)	1000	

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

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