WELLINGTON LABORATORIES

Standards for Environmental Testing and Research

This document contains brochures of Wellington Reporters from the year **2018**. We have created a combined file that includes them all for the specified year:

- April 2018 - Native Reference Standards for U.S. EPA Method 537
- August 2018 - Native and Mass-Labelled Organochlorine Pesticides
- August 2018 - Polychlorinated Naphthalenes
- August 2018 - Mass-Labelled anti-Dechlorane Plus®
- August 2018 - Aqueous Film-Forming Foam PFAS

Distributed By

Greyhound CHROMATOGRAPHY

Greyhound Chromatography and Allied Chemicals
6 Kelvin Park
Birkenhead
Merseyside, CH41 1LT

Tel: 0151 649 4000 Fax: 0151 649 4001
Email: info@greyhoundchrom.com
Web: https://www.greyhoundchrom.com

WELLINGTON Reporter

PRODUCT UPDATES FROM WELLINGTON LABORATORIES

April 6, 2018

NEW PRODUCTS

U.S. EPA Method 537 Analyte Primary Dilution Standard Solution/Mixtures & Linear/Branched Solution/Mixtures of N-MeFOSAA and N-EtFOSAA

The U.S. Environmental Protection Agency developed Method 537 (Version 1.1) for the determination of selected perfluorinated alkyl acids in drinking water by solid phase extraction and liquid chromatography/ tandem mass spectrometry (LC/MS/MS). This method requires the use of branched/linear isomer mixtures of PFHxS, PFOS, N-MeFOSAA, and N-EtFOSAA. However, until now, characterized branched/ linear mixtures of N-MeFOSAA and N-EtFOSAA were not commerically available. Therefore, in response to market demand, **Wellington** is pleased to annouce the development and release of linear/branched isomer mixtures of N-MeFOSAA (**br-NMeFOSAA**) and N-EtFOSAA (**br-NEtFOSAA**) which have been characterized as to their isomeric content by ^{19}F NMR.

To facilitate the use of these new branched/linear standards according to EPA requirements, **Wellington** has also prepared two analyte primary dilution standard solutions for U.S. EPA Method 537. **EPA-537PDS** contains all of the native PFAS analytes required by Method 537 with PFHxS, PFOS, N-MeFOSAA, and N-EtFOSAA being present as linear/branched mixtures whereas **EPA-537PDS-L** contains only linear isomers of the same components.

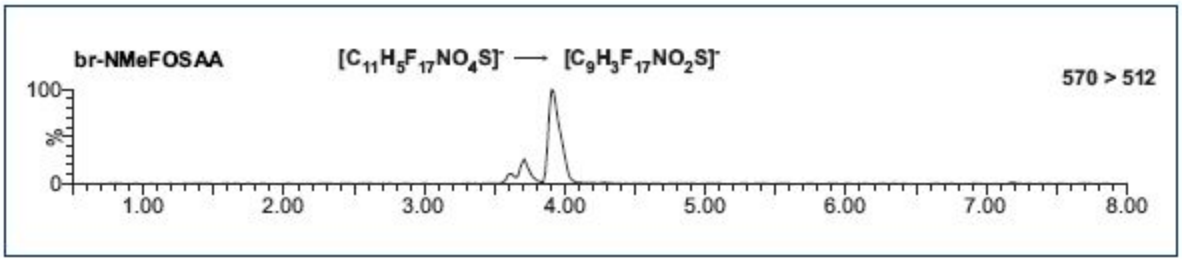
	Catalogue Number	Product (methanol)	Qty	Conc
NEW	br-NMeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid Isomeric Mixture	1.2 ml	50 µg/ml
NEW	br-NEtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid Isomeric Mixture	1.2 ml	50 µg/ml

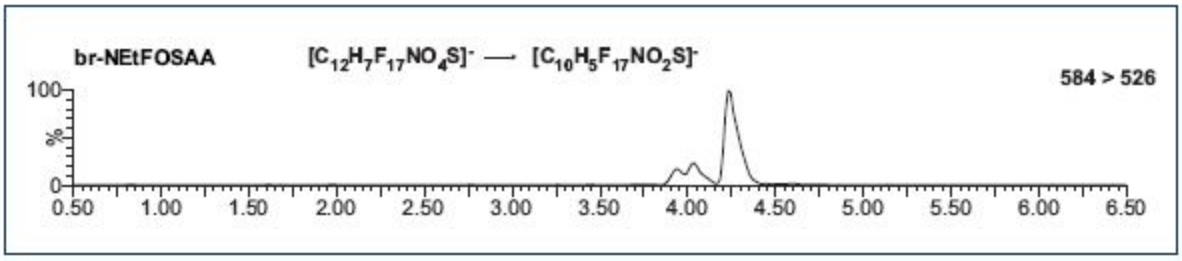
	Catalogue Number	Product (methanol)		Qty	Conc
NEW	EPA-537PDS	**Analyte Primary Dilution Standard (branched/linear mix)**		1.2 ml	2.0 µg/ml ea
NEW	EPA-537PDS-L	**Analyte Primary Dilution Standard (linear isomers only)**		1.2 ml	2.0 µg/ml ea
	EPA-537SS	**Surrogate Primary Dilution Standard (SUR PDS)**		1.2 ml	
		MPFHxA	Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid		1.0 µg/ml
		MPFDA	Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid		1.0 µg/ml
		d5-N-EtFOSAA	N-ethyl-d_5-perfluoro-1-octanesulfonamidoacetic acid		4.0 µg/ml
	EPA-537IS	**Internal Standard Primary Dilution Standard (IS PDS)**		1.2 ml	
		M2PFOA	Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid		1.0 µg/ml
		MPFOS	Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate		3.0 µg/ml
		d3-N-MeFOSAA	N-methyl-d_3-perfluoro-1-octanesulfonamidoacetic acid		4.0 µg/ml

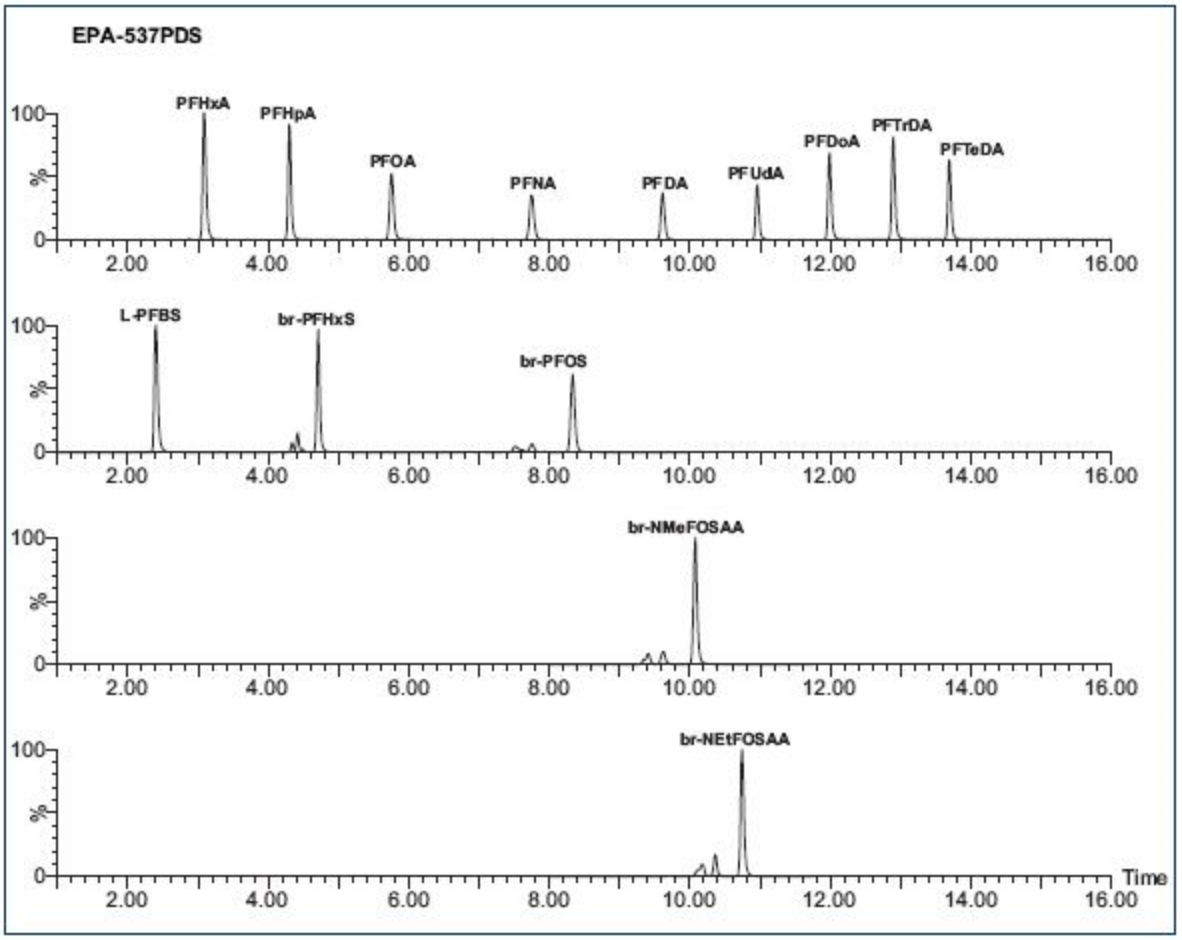
Please contact your local distributor or info@well-labs.com for pricing and delivery.

Visit our website (www.well-labs.com) for a complete listing of our new products.

LC/MS/MS Chromatograms





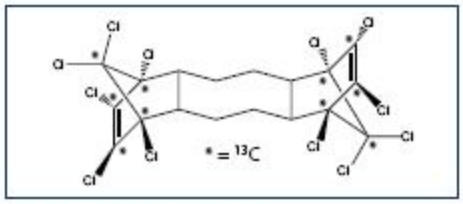


WELLINGTON Reporter
PRODUCT UPDATES FROM WELLINGTON LABORATORIES
August 27, 2018

NEW PRODUCT

Mass-Labelled anti-Dechlorane Plus
Ma-DP

Dechlorane Plus® (DP) is a current use additive polychlorinated flame retardant with a variety of applications including electronic cables and wiring, and plastic building materials. Due to rising concerns regarding the presence of DP, and its related compounds, in environmental samples, **Wellington** has expanded our DP product line to include a mass-labelled anti-DP certified reference standard which we hope will aid in the analysis of this group of compounds.



	Catalogue Number	Product (toluene)	Qty	Conc
NEW	Ma-DP	*anti*-Dechlorane Plus®-$^{13}C_{10}$	1.2 ml	50 µg/ml

Catalogue Number	Product (toluene)	Qty	Conc
a-DP	*anti*-Dechlorane Plus®	1.2 ml	50 µg/ml
s-DP	*syn*-Dechlorane Plus®	1.2 ml	50 µg/ml
aCl10DP	anti-Cl10-Dechlorane Plus®	1.2 ml	50 µg/ml
aCl11DP	anti-Cl11-Dechlorane Plus®	1.2 ml	50 µg/ml
DPMA	1,5-Dechlorane Plus® Mono Adduct	1.2 ml	50 µg/ml
1,3-DPMA	1,3-Dechlorane Plus® Mono Adduct	1.2 ml	50 µg/ml
DBCD	Dibromochlordene	1.2 ml	50 µg/ml
Dec-601	Dechlorane 601	1.2 ml	50 µg/ml
Dec-602	Dechlorane 602	1.2 ml	50 µg/ml
Dec-603	Dechlorane 603	1.2 ml	50 µg/ml
Dec-604	Dechlorane 604	1.2 ml	50 µg/ml
Dec-604CB	Dechlorane 604 Component B	1.2 ml	50 µg/ml
CPlus	Chlordene Plus	1.2 ml	50 µg/ml
DBALD	Dibromoaldrin	1.2 ml	50 µg/ml
HCPN	Hexachloro(phenyl)norbornene	1.2 ml	50 µg/ml

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Greyhound Chromatography & Allied Chemicals
6 Kelvin Park, Birkenhead,
Merseyside, CH41 1LT, U.K.
Tel: (+44)-0-151-649-4000 Fax: (+44)-0-151-649-4001
E-mail: info@ greyhoundchrom.com
Web: www.greyhoundchrom.com

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PRODUCT UPDATES FROM WELLINGTON LABORATORIES
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NEW PRODUCTS

Native and Mass-Labelled Organochlorine Pesticides

In response to customer requests, **Wellington** is proud to announce our new line of native and mass-labelled Organochlorine Pesticides (OC pesticides). To start, we are introducing solution/mixtures that contain select OC pesticides, and related compounds, that are listed in the Stockholm Convention.

Native OC Pesticide Solution/Mixture

Catalogue Number (nonane)	Acronym	Conc
OCP-MXA		
Aldrin	ALD	2.0 µg/ml
Kepone	KEP	2.0 µg/ml
Dieldrin	DELD	2.0 µg/ml
Mirex	MRX	2.0 µg/ml
Isodrin	ISOD	2.0 µg/ml
Endrin	END	2.0 µg/ml
Endrin Aldehyde	END-Ald	2.0 µg/ml
Endrin Ketone	END-Ket	2.0 µg/ml
Chlordene	HxChlor	2.0 µg/ml
1-Hydroxychlordene	1H-HxChlor	2.0 µg/ml
Heptachlor	HpChlor	2.0 µg/ml
o,p'-Methoxychlor	24P-DMDT	2.0 µg/ml
p,p'-Methoxychlor	44P-DMDT	2.0 µg/ml
cis-Chlordane (α)	cChlorD	2.0 µg/ml
trans-Chlordane (γ)	tChlorD	2.0 µg/ml
Pentachlorobenzene	PeCB	2.0 µg/ml
Hexachlorobenzene	HxCB	2.0 µg/ml

Mass-Labelled OC Pesticide Solution/Mixture

Catalogue Number (nonane)	Acronym	Conc
MOCP-MXA		
Aldrin-$^{13}C_{12}$	MALD	2.0 µg/ml
Kepone-$^{13}C_{10}$	MKEP	2.0 µg/ml
Dieldrin-$^{13}C_{12}$	MDELD	2.0 µg/ml
Mirex-$^{13}C_{10}$	MMRX	2.0 µg/ml
Isodrin-$^{13}C_{12}$	MISOD	2.0 µg/ml
Endrin-$^{13}C_{12}$	MEND	2.0 µg/ml
Chlordene-$^{13}C_{10}$	MHxChlor	2.0 µg/ml
Heptachlor-$^{13}C_{10}$	MHpChlor	2.0 µg/ml
p,p'-Methoxychlor-$^{13}C_{12}$	M44P-DMDT	2.0 µg/ml
cis-Chlordane-$^{13}C_{10}$ (α)	McChlorD	2.0 µg/ml
trans-Chlordane-$^{13}C_{10}$ (γ)	MtChlorD	2.0 µg/ml
Pentachlorobenzene-$^{13}C_6$	MPeCB	2.0 µg/ml
Hexachlorobenzene-$^{13}C_6$	MHxCB	2.0 µg/ml

Native DDT & Related Compound Solution/Mixture

Catalogue Number (nonane)	Acronym	Conc
DET-MXA		
1-(2-Chlorophenyl)-1-(4-chlorophenyl)-2,2-dichloroethane	24P-DDD	2.0 µg/ml
1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane	44P-DDD	2.0 µg/ml
2-(2-Chlorophenyl)-2-(4-chlorophenyl)-1,1-dichloroethene	24P-DDE	2.0 µg/ml
1,1-Bis(4-chlorophenyl)-2,2-dichloroethene	44P-DDE	2.0 µg/ml
1,1,1-Trichloro-2-(2-chlorophenyl)-2-(4-chlorophenyl)ethane	24P-DDT	2.0 µg/ml
1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane	44P-DDT	2.0 µg/ml

Mass-Labelled DDT & Related Compound Solution/Mixture

Catalogue Number (nonane)	Acronym	Conc
MDET-MXA		
1-(2-Chloro[$^{13}C_6$]phenyl)-1-(4-chloro[$^{13}C_6$]phenyl)-2,2-dichloroethane	M24P-DDD	2.0 µg/ml
1,1-Dichloro-2,2-bis(4-chloro[$^{13}C_6$]phenyl)ethane	M44P-DDD	2.0 µg/ml
1,1-Bis(4-chloro[$^{13}C_6$]phenyl)-2,2-dichloroethene	M44P-DDE	2.0 µg/ml
1,1,1-Trichloro-2-(2-chloro[$^{13}C_6$]phenyl)-2-(4-chloro[$^{13}C_6$]phenyl)ethane	M24P-DDT	2.0 µg/ml
1,1,1-Trichloro-2,2-bis(4-chloro[$^{13}C_6$]phenyl)ethane	M44P-DDT	2.0 µg/ml

Native HCH Solution/Mixture

Catalogue Number (nonane)	Acronym	Conc
HCH-MXA		
alpha-1,2,3,4,5,6-Hexachlorocyclohexane	aHCH	2.0 µg/ml
beta-1,2,3,4,5,6-Hexachlorocyclohexane	bHCH	2.0 µg/ml
gamma-1,2,3,4,5,6-Hexachlorocyclohexane	gHCH	2.0 µg/ml
delta-1,2,3,4,5,6-Hexachlorocyclohexane	dHCH	2.0 µg/ml

Mass-Labelled HCH Solution/Mixture

Catalogue Number (nonane)	Acronym	Conc
MHCH-MXA		
alpha-1,2,3,4,5,6-Hexachloro[$^{13}C_6$]cyclohexane	MaHCH	2.0 µg/ml
beta-1,2,3,4,5,6-Hexachloro[$^{13}C_6$]cyclohexane	MbHCH	2.0 µg/ml
gamma-1,2,3,4,5,6-Hexachloro[$^{13}C_6$]cyclohexane	MgHCH	2.0 µg/ml
delta-1,2,3,4,5,6-Hexachloro[$^{13}C_6$]cyclohexane	MdHCH	2.0 µg/ml

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6 Kelvin Park, Birkenhead,
Merseyside, CH41 1LT, U.K.
Tel: (+44)-0-151-649-4000 Fax: (+44)-0-151-649-4001
E-mail: info@ greyhoundchrom.com
Web: www.greyhoundchrom.com

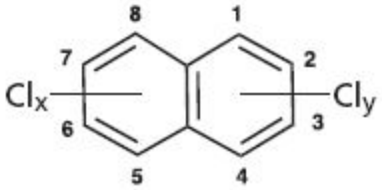
WELLINGTON Reporter
PRODUCT UPDATES FROM WELLINGTON LABORATORIES
August 27, 2018

NEW PRODUCTS

Polychlorinated Naphthalenes

Although the industrial production of polychlorinated naphthalenes (PCNs) ceased in the 1970s/1980s, their persistance in the environment as well as their formation during incineration processes has resulted in an ongoing demand for certified reference standards for this group of compounds. In response to customer requests, **Wellington** has expanded our line of native PCNs and prepared mixtures that we hope will aid laboratories in their analysis of these persistant organic pollutants (POPs).

We are pleased to introduce a PCN window defining solution/mixture (**PCN-WD**), two PCN major congeners solutions/mixtures (**PCN-HWX** and **PCN-INC**), and a PCN potentially toxic congeners solution/mixture (**PCN-TOX**). Please see the tables below for the composition of these mixtures.



PCN Window Defining Solution/Mixture

Catalogue Number	Component (nonane)	PCN#	Conc
PCN-WD	2-Chloronaphthalene	2	2.0 µg/ml
	1-Chloronaphthalene	1	2.0 µg/ml
	1,3-Dichloronaphthalene	4	2.0 µg/ml
	1,8-Dichloronaphthalene	9	2.0 µg/ml
	1,3,6-Trichloronaphthalene	20	2.0 µg/ml
	1,2,8-Trichloronaphthalene	18	2.0 µg/ml
	1,3,5,7-Tetrachloronaphthalene	42	2.0 µg/ml
	1,2,7,8-Tetrachloronaphthalene	41	2.0 µg/ml
	1,2,3,5,7-Pentachloronaphthalene	52	2.0 µg/ml
	1,2,3,7,8-Pentachloronaphthalene	56	2.0 µg/ml
	1,2,3,4,6,7-Hexachloronaphthalene	66	2.0 µg/ml
	1,2,3,6,7,8-Hexachloronaphthalene	70	2.0 µg/ml
	1,2,3,4,5,6,7-Heptachloronaphthalene	73	2.0 µg/ml
	1,2,3,4,5,6,8-Heptachloronaphthalene	74	2.0 µg/ml
	Octachloronaphthalene	75	2.0 µg/ml

PCN Major Halowax Congeners Solution/Mixture

Catalogue Number	Component (nonane)	PCN#	Conc
PCN-HWX	1-Chloronaphthalene	1	2.0 µg/ml
	1,4-Dichloronaphthalene	5	2.0 µg/ml
	1,4,5-Trichloronaphthalene	23	2.0 µg/ml
	1,4,6-Trichloronaphthalene	24	2.0 µg/ml
	1,2,4,6-Tetrachloronaphthalene	33	2.0 µg/ml
	1,2,6,8-Tetrachloronaphthalene	40	2.0 µg/ml
	1,2,4,5,8-Pentachloronaphthalene	59	2.0 µg/ml
	1,2,4,5,7,8-Hexachloronaphthalene	72	2.0 µg/ml
	1,2,3,4,5,6,8-Heptachloronaphthalene	74	2.0 µg/ml
	Octachloronaphthalene	75	2.0 µg/ml

PCN Major Incineration Congeners Solution/Mixture

Catalogue Number	Component (nonane)	PCN#	Conc
PCN-INC	2-Chloronaphthalene	2	2.0 µg/ml
	2,7-Dichloronaphthalene	12	2.0 µg/ml
	1,2,3-Trichloronaphthalene	13	2.0 µg/ml
	1,2,7-Trichloronaphthalene	17	2.0 µg/ml
	1,2,3,5-Tetrachloronaphthalene	28	2.0 µg/ml
	1,2,4,7-Tetrachloronaphthalene	34	2.0 µg/ml
	1,2,3,6,7-Pentachloronaphthalene	54	2.0 µg/ml
	1,2,3,5,7,8-Hexachloronaphthalene	69	2.0 µg/ml
	1,2,3,4,5,6,7-Heptachloronaphthalene	73	2.0 µg/ml
	Octachloronaphthalene	75	2.0 µg/ml

PCN Potentially Toxic Congeners Solution/Mixture

Catalogue Number	Component (nonane)	PCN#	Conc
PCN-TOX	2,3,6,7-Tetrachloronaphthalene	48	2.0 µg/ml
	1,2,3,6,7-Pentachloronaphthalene	54	2.0 µg/ml
	1,2,3,4,6,7-Hexachloronaphthalene	66	2.0 µg/ml
	1,2,3,5,7,8-Hexachloronaphthalene	69	2.0 µg/ml
	1,2,3,6,7,8-Hexachloronaphthalene	70	2.0 µg/ml
	1,2,3,4,5,6,7-Heptachloronaphthalene	73	2.0 µg/ml

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WELLINGTON Reporter

PRODUCT UPDATES FROM WELLINGTON LABORATORIES

August 27, 2018

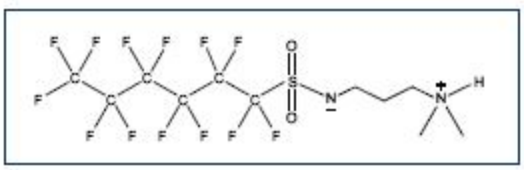
NEW PRODUCTS

Aqueous Film-Forming Foam PFAS

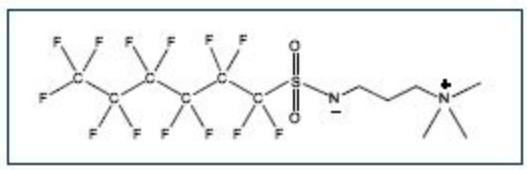
In response to ever increasing reports of novel zwitterionic and cationic PFAS contaminants being found at sites exposed to aqueous film-forming foams (AFFFs), **Wellington** has expanded our PFAS product line to include three zwitterionic AFFF compounds, **N-AP-FHxSA**, **N-TAmP-FHxSA**, and **N-CMAmP-6:2FOSA** (which is commonly referred to as 6:2FTAB in the scientific literature), as well as neutral compounds also detected at impacted sites (**FHxSA-I** and **FBSA-I**).

	Catalogue Number	Product (isopropanol)	Qty	Conc
NEW	FBSA-I	Perfluoro-1-butanesulfonamide	1.2 ml	50 µg/ml
NEW	FHxSA-I	Perfluoro-1-hexanesulfonamide	1.2 ml	50 µg/ml
	FOSA-I	Perfluoro-1-octanesulfonamide	1.2 ml	50 µg/ml

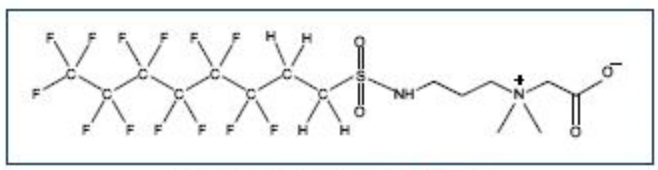
	Catalogue Number	Product (methanol)	Qty	Conc
NEW	N-AP-FHxSA	N-(3-dimethylaminopropan-1-yl)perfluoro-1-hexane-sulfonamide	1.2 ml	50 µg/ml
NEW	N-TAmP-FHxSA	N-[3-(perfluoro-1-hexanesulfonamido)propan-1-yl]-N,N,N-trimethylammonium	1.2 ml	50 µg/ml
NEW	N-CMAmP-6:2FOSA	N-(carboxymethyl)-N,N-dimethyl-N-[3-(1H,1H,2H,2H-perfluoro-1-octanesulfonamido)propan-1-yl]ammonium (6:2 FTAB)	1.2 ml	50 µg/ml



N-AP-FHxSA
(the zwitterion form is preferred at neutral pH)



N-TAmP-FHxSA
(exists as a zwitterion unless exposed to acidic conditions)



N-CMAmP-6:2FOSA (6:2 FTAB)
(exists as a zwitterion unless exposed to strongly acidic conditions)

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6 Kelvin Park, Birkenhead,
Merseyside, CH41 1LT, U.K.
Tel: (+44)-0-151-649-4000 Fax: (+44)-0-151-649-4001
E-mail: info@ greyhoundchrom.com
Web: www.greyhoundchrom.com