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Agenda item 4 (f)

Technical work: indicative list of substances covered by the listing of perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds

Updated indicative list of substances covered by the listing of perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds

Note by the Secretariat

The annex to the present note sets out an updated indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds revised in consultation with the Persistent Organic Pollutants Review Committee. The present note, including its annex, has not been formally edited.

* Reissued for technical reasons on 21 March 2022.

Annex

Updated indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds (ver. February 2022)[1]

1. Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds are listed in Annex A to the Stockholm Convention with the following definition:

> "Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds" means the following:
>
> (i) Perfluorooctanoic acid (PFOA; CAS No: 335-67-1), including any of its branched isomers;
>
> (ii) Its salts;
>
> (iii) PFOA-related compounds which, for the purposes of the Convention, are any substances that degrade to PFOA, including any substances (including salts and polymers) having a linear or branched perfluoroheptyl group with the moiety (C_7F_{15}) C as one of the structural elements;
>
> The following compounds are not included as PFOA-related compounds:
>
> (i) C_8F_{17}-X, where X= F, Cl, Br;
>
> (ii) Fluoropolymers that are covered by $CF_3[CF_2]_n$-R', where R'=any group, n>16;
>
> (iii) Perfluoroalkyl carboxylic and phosphonic acids (including their salts, esters, halides and anhydrides) with ≥8 perfluorinated carbons;
>
> (iv) Perfluoroalkane sulfonic acids (including their salts, esters, halides and anhydrides) with ≥9 perfluorinated carbons;
>
> (v) Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF), as listed in Annex B to the Convention.

2. As noted in paragraph 7 of decision SC-9/13, in order to support Parties and facilitate the identification of substances and understanding of the listing, the indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds was prepared by the Persistent Organic Pollutants Review Committee as set out in document UNEP/POPS/POPRC.13/INF/6/Add.1. Pursuant to paragraph 9 of the same decision, the following indicative lists have been prepared and updated, taking into account the information submitted by Parties and others:

(a) Table 1: Indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds;

(b) Table 2: Indicative list of substances not covered by the listing of PFOA, its salts and PFOA-related compounds;

(c) Table 3: 2D structural formulas for some selected substances added by Switzerland to the indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds.

3. The lists are expected to be updated periodically, taking into account new information provided by Parties and others and in consultation with the Committee, and made available on the Convention's website.[2]

[1] The indicative list is not an exhaustive list.

[2] http://chm.pops.int/TheConvention/ThePOPs/AllPOPs/tabid/2509/Default.aspx.

Table 1: Indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds (ver. February 2022)

This list does not include sulfluramid (*N*-EtFOSA, *N*-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonamide, CAS No. 4151-50-2), as it is covered by the listing of perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) in Annex B to the Stockholm Convention.

Known precursors of perfluorooctanoic acid (PFOA) are included based on the information made available to the Secretariat. The information on commercial use of PFOA, its salts and PFOA-related compounds is limited in the public domain. Parties and observers are invited to provide information on use of PFOA, its salts and PFOA-related compounds (brs@un.org) or consult information available in substance inventories such as the OECD Global Portal to Information on Chemical Substances (eChemPortal).

Notes:

a. Hyperlinks to the CAS Common Chemistry database are provided for those CAS numbers that have entries in that database;

b. Perfluorooctanoic acid (PFOA; CAS No: 335-67-1), including any of its branched isomers;

c. Salts of perfluorooctanoic acid (PFOA; CAS No: 335-67-1);

d. PFOA-related compounds which, for the purposes of the Convention, are any substances that degrade to PFOA, including any substances (including salts and polymers) having a linear or branched perfluoroheptyl group with the moiety $(C_7F_{15})C$ as one of the structural elements;

e. Polymers with $\geq C_8$ based perfluoroalkyl side chains;

f. 8:2 fluorotelomer compounds;

g. 10:2 fluorotelomer compounds;

h. Whenever a compound contains a component degrading into PFOA, it is considered to be within the scope of the listing of PFOA, its salts and PFOA-related compounds under the Convention. This applies even if the compound contains other components that do not themselves degrade into PFOA. Such compounds are marked with an asterisk (*);

i. References on transformation to PFOA are provided for those precursors that do not fall under the descriptions in columns (a), (b) or (c), i.e., have the column 'Other' ticked, and that have been added since UNEP/POPS/POPRC.16/INF/12. Existing studies have not tested PFOA precursors on an individual compound basis, but provide a well-established mechanistic understanding of the transformation pathways of groups of PFOA precursors that share similar molecular traits (e.g., n:2 fluorotelomer compounds with $n \geq 8$);

j. 'x' indicates that the structural formula of this chemical is available in Table 3; '↑' and '↓' indicate that the latest or next substance with a structural formula is closely related to this one (i.e., different cation or different perfluoro chain length). Structural formulas of other chemicals are available on the website of the Stockholm Convention.[3]

[3] http://www.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC16/POPRC16Followup/CommentsonRevPFOA/tabid/8948/Default.aspx. Please see "Chemical structures of PFOA, its salts and PFOA-related compounds", submitted by the United States of America, 2021.

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
PFOA											
335-67-1	PFOA	Perfluorooctanoic acid		x							
45285-51-6	PFO	Perfluorooctanoate (conjugate base of the free acid) Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ion(1-)		x							
PFOA isomers											
90480-55-0		Branched perfluorooctanoic acid		x							
1882109-81-0		Hexanoic acid, 2,2,3,4,5,5,6,6,6-nonafluoro-3,4-bis(trifluoromethyl)-		x							
1882109-80-9		Hexanoic acid, 2,3,3,4,4,5,6,6,6-nonafluoro-2,5-bis(trifluoromethyl)-		x							
1882109-79-6		Hexanoic acid, 2,2,3,3,4,5,5,6,6,6-decafluoro-4-(1,1,2,2,2-pentafluoroethyl)-		x							
1882109-78-5		Hexanoic acid, 2,2,3,4,4,5,5,6,6,6-decafluoro-3-(1,1,2,2,2-pentafluoroethyl)-		x							
1882109-77-4		Pentanoic acid, 2,3,3,4,4,5,5,5-octafluoro-2-(1,1,2,2,3,3,3-heptafluoropropyl)-		x							
1882109-76-3		Pentanoic acid, 2,3,3,4,4,5,5,5-octafluoro-2-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-		x							
1882109-75-2		Pentanoic acid, 2,2,3,5,5,5-hexafluoro-3,4,4-tris(trifluoromethyl)-		x							
1882109-74-1		Pentanoic acid, 2,2,4,5,5,5-hexafluoro-3,3,4-tris(trifluoromethyl)-		x							
1882109-73-0		Pentanoic acid, 2,3,3,5,5,5-hexafluoro-2,4,4-tris(trifluoromethyl)-		x							
1882109-72-9		Pentanoic acid, 2,3,4,5,5,5-hexafluoro-2,3,4-tris(trifluoromethyl)-		x							
1882109-71-8		Pentanoic acid, 2,4,4,5,5,5-hexafluoro-2,3,3-tris(trifluoromethyl)-		x							
1882109-70-7		Pentanoic acid, 3,3,4,5,5,5-hexafluoro-2,2,4-tris(trifluoromethyl)-		x							
1882109-68-3		Pentanoic acid, 2,2,3,4,5,5,5-heptafluoro-3-(1,1,2,2,2-pentafluoroethyl)-4-(trifluoromethyl)-		x							

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
1882109-67-2		Pentanoic acid, 2,2,4,4,5,5,5-heptafluoro-3-(1,1,2,2,2-pentafluoroethyl)-3-(trifluoromethyl)-		x							
1882109-66-1		Pentanoic acid, 2,3,4,4,5,5,5-heptafluoro-3-(1,1,2,2,2-pentafluoroethyl)-2-(trifluoromethyl)-		x							
1882109-65-0		Pentanoic acid, 2,3,3,4,5,5,5-heptafluoro-2-(1,1,2,2,2-pentafluoroethyl)-4-(trifluoromethyl)-		x							
1882109-64-9		Pentanoic acid, 2,3,4,4,5,5,5-heptafluoro-2-(1,1,2,2,2-pentafluoroethyl)-3-(trifluoromethyl)-		x							
1882109-63-8		Pentanoic acid, 3,3,4,4,5,5,5-heptafluoro-2-(1,1,2,2,2-pentafluoroethyl)-2-(trifluoromethyl)-		x							
1882109-69-4		Pentanoic acid, 3,4,4,5,5,5-hexafluoro-2,2,3-tris(trifluoromethyl)-		x							
1882109-62-7		Butanoic acid, 4,4,4-trifluoro-2,2,3,3-tetrakis(trifluoromethyl)-		x							
1882109-61-6		Butanoic acid, 2,3,4,4,4-pentafluoro-2-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-3-(trifluoromethyl)-		x							
1882109-60-5		Butanoic acid, 2,3,3,4,4,4-hexafluoro-2-[2,2,2-trifluoro-1,1-bis(trifluoromethyl)ethyl]-		x							
1882109-59-2		Butanoic acid, 3,3,4,4,4-pentafluoro-2-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-2-(trifluoromethyl)-		x							
1882109-58-1		Butanoic acid, 3,3,4,4,4-pentafluoro-2,2-bis(1,1,2,2,2-pentafluoroethyl)-		x							
1812247-20-3		Hexanoic acid, 2,2,4,4,5,5,6,6,6-nonafluoro-3,3-bis(trifluoromethyl)-		x							
1812247-19-0		Hexanoic acid, 2,3,3,4,5,5,6,6,6-nonafluoro-2,4-bis(trifluoromethyl)-		x							
1812247-18-9		Hexanoic acid, 2,3,4,4,5,5,6,6,6-nonafluoro-2,3-bis(trifluoromethyl)-		x							
1812247-17-8		Hexanoic acid, 3,3,4,4,5,5,6,6,6-nonafluoro-2,2-bis(trifluoromethyl)-		x							
1192593-79-5		Hexanoic acid, 2,2,3,3,5,5,6,6,6-nonafluoro-4,4-bis(trifluoromethyl)-		x							
1144512-36-6		Hexanoic acid, 2,2,3,3,4,5,6,6,6-nonafluoro-4,5-bis(trifluoromethyl)-		x							

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
1144512-35-5		Hexanoic acid, 2,2,3,4,4,5,6,6,6-nonafluoro-3,5-bis(trifluoromethyl)-		x							
1144512-34-4		Hexanoic acid, 2,2,3,3,4,4,6,6,6-nonafluoro-5,5-bis(trifluoromethyl)-		x							
1144512-18-4		Heptanoic acid, 2,2,3,3,4,5,5,6,6,7,7,7-dodecafluoro-4-(trifluoromethyl)-		x							
909009-42-3		Heptanoic acid, 2,2,3,3,4,4,5,6,6,7,7,7-dodecafluoro-5-(trifluoromethyl)-		x							
705240-04-6		Heptanoic acid, 2,2,3,4,4,5,5,6,6,7,7,7-dodecafluoro-3-(trifluoromethyl)-		x							
207678-51-1		Heptanoic acid, 2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-2-(trifluoromethyl)-		x							
123116-17-6		Isooctanoic acid, pentadecafluoro-		x							
35605-76-6		Hexanoic acid, 2,3,3,4,4,5,5,6,6,6-decafluoro-2-(1,1,2,2,2-pentafluoroethyl)-		x							
15166-06-0		Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-		x							
PFOA salts (including linear and branched isomers)											
90480-56-1	APFO	Octanoic acid, pentadecafluoro-, branched, ammonium salt			x						
3825-26-1	APFO	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt (1:1)			x						
335-95-5	Na-PFOA	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, sodium salt (1:1)			x						
2395-00-8	K-PFOA	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, potassium salt (1:1)			x						
17125-58-5	Li-PFOA	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, lithium salt (1:1)	$Li^+ C_7F_{15}COO^-$		x						
335-93-3		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, silver(1+) salt (1:1)			x						
68141-02-6		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) salt (3:1)			x						
98241-25-9		Ethanaminium, *N*,*N*,*N*-triethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1)			x						

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
13058-06-5		Hexanoic acid, 2,3,3,4,4,5,5,6,6,6-decafluoro-2-(1,1,2,2,2- pentafluoroethyl)-, ammonium salt (1:1)			x						
1195164-59-0		Hexanoic acid, 2,3,3,4,4,5,5,6,6,6-decafluoro-2-(1,1,2,2,2-pentafluoroethyl)-, sodium salt (1:1)			x						
19742-57-5		Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodeca fluoro-6-(trifluoromethyl)-, ammonium salt (1:1)			x						
61436-04-2		Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-, iron salt (1:x)			x						
29457-73-6		Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodeca fluoro-6-(trifluoromethyl)-, potassium salt (1:1)			x						
18017-22-6		Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodeca fluoro-6-(trifluoromethyl)- , sodium salt (1:1)			x						
15739-82-9		Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodeca fluoro-6-(trifluoromethyl)-, chromium salt (1:x)			x						
15715-47-6		Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodeca fluoro-6-(trifluoromethyl)-, aluminum salt (3:1)			x						
Other PFCA mixtures containing PFOA											
68333-92-6		Fatty acids, C_{7-13}, perfluoro							x*	7	
69278-80-4		Ethylamine salts of C_7-C_{13} perfluorinated fatty acids							x*	7	
91032-01-8		Fatty acids, C_{7-19}, perfluoro							x*	7	
72968-38-8		Fatty acids, C_{7-13}, perfluoro, ammonium salts							x*	7	
72623-77-9		Fatty acids, C_{6-18}, perfluoro, ammonium salts	contains NH_4^+ $C_7F_{15}COO^-$						x*	7	
PFOA esters and anhydrides											
376-27-2		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, methyl ester							x	7	
3108-24-5		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ethyl ester							x	7	
33496-48-9		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, 1,1'-anhydride							x	7	
Perfluoroalkyl phosphinic acids (PFPiAs)											

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
68412-69-1		Phosphinic acid, bis(perfluoro-C_{6-12}-alkyl) derivs.							x*		
93062-53-4		Phosphinic acid, bis(perfluoro-C_{6-12}-alkyl) derivs., aluminum salts							x*		
40143-79-1	C_8/C_8-PFPIA	Bis(perfluorooctyl)phosphinic acid							x		
610800-34-5	C_6/C_8-PFPIA	Phosphinic acid, P-(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)-P-(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)-							x		
Perfluoroalkyl halides (incl. linear and branched isomers)											
335-66-0		Octanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-							x	7	
507-63-1	PFOI	Perfluorooctyl iodide							x	7	
307-50-6		Undecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-tricosafluoro-11-iodo-							x		
307-60-8		Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluoro-12-iodo-							x		
307-63-1		Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafluoro-14-iodo-							x		
335-79-5		Pentadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15-hentriacontafluoro-15-iodo-							x		
376-04-5		Tridecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13-heptacosafluoro-13-iodo-							x		
423-62-1		Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafluoro-10-iodo-							x		
558-97-4		Nonane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-9-iodo-							x		
677-93-0		Decane, 1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-eicosafluoro-10-iodo-2-(trifluoromethyl)-							x		

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
3248-61-1		Dodecane, 1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-tetracosafluoro-12-iodo-2-(trifluoromethyl)-							x		
3248-63-3		Tetradecane, 1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-octacosafluoro-14-iodo-2-(trifluoromethyl)-							x		
90622-71-2		Alkyl iodides, C_{6-18}, perfluoro							x*		
Fluorotelomer iodides (FTIs)											
2043-53-0	8:2 FTI	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo-					x			7	
2043-54-1	10:2 FTI	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafluoro-12-iodo-						x			
30046-31-2	12:2 FTI	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12- pentacosafluoro-14-iodo-							x		
65510-55-6	14:2 FTI	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafluoro-16-iodo-							x		
65510-56-7	9:2 FTI	Undecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-11-iodo-							x		
68188-12-5	FTIs	Alkyl iodides, C_{4-20}, γ-ω-perfluoro							x*		
68390-33-0	FTIs	Alkyl iodides, C_{10-12}, γ-ω-perfluoro							x		
Fluorotelomer olefins (FTOs)											
21652-58-4	8:2 FTO	8:2 Fluorotelomer olefin 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-					x			7	
30389-25-4	10:2 FTO	1-Dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-						x			
Fluorotelomer alcohols (FTOHs)											

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
60699-51-6	14:2 FTOH	1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluoro-	$C_{14}F_{29}CH_2CH_2OH$						x		
176676-70-3	13:2 FTOH	1-Pentadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-heptacosafluoro-	$C_{13}F_{27}CH_2CH_2OH$						x	3, 4	
39239-77-5	12:2 FTOH	1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluoro-	$C_{12}F_{25}CH_2CH_2OH$						x		
1545-59-1	11:2 FTOH	1-Tridecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-tricosafluoro-	$C_{11}F_{23}CH_2CH_2OH$						x	3, 4	
865-86-1	10:2 FTOH	1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-	$C_{10}F_{21}CH_2CH_2OH$					x			
87017-97-8	9:2 FTOH	1-Undecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoro-	$C_9F_{19}CH_2CH_2OH$						x	3, 4	
678-39-7	8:2 FTOH	1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	$C_8F_{17}CH_2CH_2OH$				x			7	
Fluorotelomer saturated and non-saturated acids (FTCAs and FTUCAs)											
70887-94-4	10:2 FTUCA	2-Dodecenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-eicosafluoro-						x			
53826-13-4	10:2 FTCA	Dodecanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-	$C_{10}F_{21}CH_2COOH$					x			
191852-87-6	9:2 FTCA	Undecanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoro-	$C_9F_{19}CH_2COOH$						x	3, 4	
70887-84-2	8:2 FTUCA	2-Decenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hexadecafluoro-					x			7	
27854-31-5	8:2 FTCA	Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-					x				
Fluorotelomer phosphate esters (PAPs)											

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
54009-73-3		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexa decafluoro-10-(trifluoromethyl)-, 1-(dihydrogen phosphate)	$(F_3C)_2CFC_6F_{12}CH_2CH(OH)CH_2OP(=O)(OH)_2$						x		
63295-27-2		1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,13,13,13-eicosafluoro-12-(trifluoromethyl)-, 1-(dihydrogen phosphate)	$(F_3C)_2CFC_8F_{16}CH_2CH(OH)CH_2OP(=O)(OH)_2$						x		
63295-28-3		1,2-Pentadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafluoro-14-(trifluoromethyl)-, 1-(dihydrogen phosphate)	$(F_3C)_2CFC_{10}F_{20}CH_2CH(OH)CH_2OP(=O)(OH)_2$						x		
63295-29-4		1,2-Heptadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,17,17,17-octacosafluoro-16-(trifluoromethyl)-, 1-(dihydrogen phosphate)	$(F_3C)_2CFC_{12}F_{24}CH_2CH(OH)CH_2OP(=O)(OH)_2$						x		
63295-18-1		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10, 11,11,11-hexa decafluoro-10-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt	$2\ NH_4^+\ (F_3C)_2CFC_6F_{12}CH_2CH(OH)CH_2OPO_3^{2-}$						x	3, 4	x
63295-19-2		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10, 11,11,11-hexa decafluoro-10-(trifluoromethyl)-, 1-(dihydrogen phosphate), compd. with 2,2′-iminobis[ethanol] (1:2)	$2\ NH_2^+(CH_2CH_2OH)_2$ $(F_3C)_2CFC_6F_{12}CH_2CH(OH)CH_2OPO_3^{2-}$						x	3, 4	x
63295-23-8		2-Undecanol, 4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)-, dihydrogen phosphate, diammonium salt	$2\ NH_4^+$ $(F_3C)_2CFC_6F_{12}CH_2CH(CH_3)OPO_3^{2-}$						x	3, 4	x
63295-24-9		Acetic acid, 2-[[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10, 10-hexadeca fluoro-1-[(phosphonooxy)methyl]-9-(trifluoromethyl) decyl]oxy]-, ammonium salt (1:2)	$2\ NH_4^+\ (F_3C)_2CFC_6F_{12}CH_2CH(OCH_2COOH)$ $CH_2OPO_3^{2-}$						x	3, 4	x
63295-22-7		1-Undecanol, 2-chloro-4,4,5,5,6,6,7,7,8,8,9,9,10, 11,11,11-hexadecafluoro-10-(trifluoromethyl)-, dihydrogen phosphate	$(F_3C)_2CFC_6F_{12}CH_2CH(Cl)CH_2OP(=O)(OH)_2$						x	3, 4	x
94158-70-0		1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafluoro-, 1-(dihydrogen phosphate)							x		

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
94200-46-1		1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafluoro-, 1-(dihydrogen phosphate), diammonium salt							x		
94200-47-2		1,2-Pentadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafluoro-, 1-(dihydrogen phosphate), diammonium salt							x		
94200-48-3		1,2-Heptadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,17-nonacosafluoro-, 1-(dihydrogen phosphate), diammonium salt							x		
94200-50-7		1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,13,13,13-eicosafluoro-12-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt							x		
94200-51-8		1,2-Pentadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafluoro-14-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt							x		
94200-52-9		1,2-Heptadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,17,17,17-octacosafluoro-16-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt							x		
57678-03-2	8:2 monoPAP	8:2 Fluorotelomer phosphate monoester					x			7	
		1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, 1-(dihydrogen phosphate)								7	
678-41-1	8:2 diPAP	8:2 Fluorotelomer phosphate diester					x				
		1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, 1,1'-(hydrogen phosphate)									
93857-44-4		1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, dihydrogen phosphate, diammonium salt	2 NH_4^+ $C_8F_{17}CH_2CH_2OPO_3^{2-}$				x			7	
93857-45-5		1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-, 1-(dihydrogen phosphate), ammonium salt (1:2)	2 NH_4^+ $C_{10}F_{21}CH_2CH_2OPO_3^{2-}$					x			

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
57678-05-4	10:2 monoPAP	1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-, 1-(dihydrogen phosphate)	$C_{10}F_{21}CH_2CH_2OP(=O)(OH)_2$					x			
1895-26-7	10:2 diPAP	1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-, 1,1'-(hydrogen phosphate)	$(O)P(OH)(OCH_2CH_2C_{10}F_{21})_2$					x			
90179-37-6		2-Undecanol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11, 11,11-heptadecafluoro-, dihydrogen phosphate, potassium salt	$x\ K^+\ C_8F_{17}CH_2CH(CH_3)OPO_3^{2-}$						x	3, 4	
98005-85-7		Diphosphoric acid, mono(3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10,10-heptadecafluorodecyl) ester, compd. with 2,2′,2″-nitrilotris[ethanol] (1:3)	$3\ N(CH_2CH_2OH)_3$ $C_8F_{17}CH_2CH_2OP(=O)(OH)OP(=O)(OH)_2$				x				x
98005-84-6		Diphosphoric acid, mono(3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10,10-heptadecafluorodecyl) ester, compd. with 2-aminoethanol (1:3)	$3\ NH_2CH_2CH_2OH$ $C_8F_{17}CH_2CH_2OP(=O)(OH)OP(=O)(OH)_2$				x				x
1158182-60-5	8:2/10:2 diPAP	Phosphoric acid, mono(3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10,11,11,12,12,12-heneicosafluoro dodecyl) mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10, 10,10-heptadecafluorodecyl) ester	$(O)P(OH)(OCH_2CH_2C_8F_{17})(OCH_2CH_2C_{10}F_{21})$				x	x			x
1578186-42-1	8:2/12:2 diPAP	Phosphoric acid, mono(3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10,10-heptadecafluorodecyl) mono(3,3,4, 4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14, 14,14-pentacosafluorotetradecyl) ester	$(O)P(OH)(OCH_2CH_2C_8F_{17})(OCH_2CH_2C_{12}F_{25})$				x				↑
1158182-61-6	10:2/12:2 diPAP	Phosphoric acid, mono(3,3,4,4,5,5,6,6,7,7,8,8,9, 9,10,10,11,11,12,12,12-heneicosafluorododecyl) mono(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,1 2,13,13,14,14,14-pentacosafluorotetradecyl) ester	$(O)P(OH)(OCH_2CH_2C_{10}F_{21})(OCH_2CH_2C_{12}F_{25})$					x			↑
93776-20-6	Ammonium salt of 8:2 diPAP	Ammonium bi(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) phosphate	$NH_4^+\ OP(O^-)(OCH_2CH_2C_8F_{17})_2$				x				x
93776-21-7	Ammonium salt of 10:2 diPAP	Ammonium bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,12,12,12-heneicosafluorodecyl) phosphate	$NH_4^+\ OP(O^-)(OCH_2CH_2C_{10}F_{21})_2$					x			↑
63295-20-5		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,11, 11,11-hexadecafluoro-10-(trifluoromethyl)-, 1,1-(hydrogen phosphate)	$OP(OH)[OCH_2CH(OH)CH_2C_6F_{12}CF(CF_3)_2]_2$						x	3, 4	x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
63295-26-1		1-Undecanol, 2-chloro-4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)-, hydrogen phosphate	$OP(OH)[OCH_2CH(Cl)CH_2C_6F_{12}CF(CF_3)_2]_2$						x	3, 4	x
2343-53-5		1-Nonadecanol, 12,12,13,13,14,14,15,15,16,16,17,17, 18,18,19,19,19-heptadecafluoro-, dihydrogen phosphate	$OP(OH)[O(CH_2)_{11}C_8F_{17}]_2$				x				x
1578186-53-4	6:2/6:2/8:2 triPAP	Phosphoric acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl bis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ester	$OP(OCH_2CH_2C_6F_{13})_2OCH_2CH_2C_8F_{17}$				x				x
1578186-56-7	6:2/8:2/8:2 triPAP	Phosphoric acid, bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl ester	$OP(OCH_2CH_2C_8F_{17})_2OCH_2CH_2C_6F_{13}$				x				↑
1578186-64-7	6:2/8:2/10:2 triPAP	Phosphoric acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl ester	$OP(OCH_2CH_2C_6F_{13})(OCH_2CH_2C_8F_{17})OCH_2CH_2C_{10}F_{21}$				x	x			↑
1578186-57-8	6:2/6:2/10:2 triPAP	Phosphoric acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecylbis (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ester	$OP(OCH_2CH_2C_6F_{13})_2OCH_2CH_2C_{10}F_{21}$					x			↑
149790-22-7	8:2 triPAP	1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, 1,1',1''-phosphate	$OP(OCH_2CH_2C_8F_{17})_3$				x				↑
441765-20-4		1-Decanesulfonamide, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-*N*-[3-(phosphonooxy)propyl]-*N*-propyl-, sodium salt (1:2)	$2\ Na^+\ C_8F_{17}CH_2CH_2SO_2N(C_3H_7)CH_2CH_2CH_2OPO_3^{2-}$				x				x
Fluorotelomer acrylates and methacrylates (FTACs and FTMACs)											
16083-78-6		2-Propenoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,17,17,17-octacosafluoro-2-hydroxy-16-(trifluoromethyl)heptadecyl ester							x		
4980-53-4	14:2 FTMAC	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluorohexadecyl ester							x		
6014-75-1	12:2 FTMAC	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl ester							x		

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
16083-87-7		2-Propenoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafluoro-2-hydroxy-14-(trifluoromethyl)pentadecyl ester							x		
52956-82-8		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-tetracosafluoro-13-(trifluoromethyl)tetradecyl ester							x		
74256-14-7		2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-eicosafluoro-11-(trifluoromethyl)dodecyl ester							x		
74256-15-8		2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-tetra cosafluoro-13-(trifluoromethyl)tetradecyl ester							x		
17741-60-5	10:2 FTAC	2-(Perfluorodecyl) ethyl acrylate						x			
		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester									
2144-54-9	10:2 FTMAC	2-(Perfluorodecyl) ethyl methacrylate						x			
		2- Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester									
27905-45-9	8:2 FTAC	8:2 Fluorotelomer acrylate					x			7	
		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester								7	
1996-88-9	8:2 FTMAC	8:2 Fluorotelomer methacrylate					x			7	
		2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester									
85631-54-5	FTACs	2-Propenoic acid, γ-ω-perfluoro-C8-14-alkyl esters					x	x	x		
91615-22-4		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,16,16,16-octacosafluoro-15-(trifluoromethyl)hexadecyl ester							x		

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
94158-63-1		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,18,18,18-dotriacontafluoro-17-(trifluoromethyl)octadecyl ester							x		
94158-64-2		2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,16,16,16-octacosafluoro-15-(trifluoromethyl)hexadecyl ester							x		
94158-65-3		2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,18,18,18-dotriacontafluoro-17-(trifluoromethyl)octadecyl ester							x		
146955-29-5		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-(hydroxymethyl)decyl ester	$C_8F_{17}CH_2CH(CH_2OH)OC(O)CH=CH_2$				x				x
76962-34-0		2-Propenoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl ester	$C_8F_{17}CH_2CH(OH)CH_2OC(O)CH=CH_2$				x				x
Other fluorotelomer-based non-polymers											
93776-12-6		1-Propanaminium, *N*-(2-carboxyethyl)-*N*,*N*-dimethyl-3-[(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12, 12,13,13,14,14,15,15,15-pentacosafluoro-2-hydroxypentadecyl) amino]-, inner salt							x		
93776-13-7		1-Propanaminium, *N*-(2-carboxyethyl)-3-[(4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,12,12,13,13,13-heneicosafluoro-2-hydroxytridecyl)amino] -*N*,*N*-dimethyl-, inner salt						x			
93776-15-9		1-Propanaminium, *N*-(2-carboxyethyl)-*N*,*N*-dimethyl-3-[[4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12, 12,13,13,14,15,15,15-tetracosafluoro-2-hydroxy-14- (trifluoromethyl)pentadecyl]amino]-, inner salt									
94159-83-8		2-Tridecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,13,13,13-eicosafluoro-12-(trifluoromethyl)-							x		

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
94159-79-2		2-Pentadecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafluoro-							x		
94159-80-5		2-Tridecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafluoro-						x			
94159-82-7		2-Pentadecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafluoro-14-(trifluoromethyl)-							x		
99955-83-6	8:2 FTS	8:2 Fluorotelomer stearate monoester					x				
		Octadecanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester									
302911-86-0		8:2 Fluorotelomer citrate triester					x				
		Pentanedioic acid, 3-[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]-2-oxoethyl]-3-hydroxy-, 1,5-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester									
3102-79-2		Perfluorooctylethyldichloromethyl silane					x			7	
74612-30-9		Perfluorooctylethyldimethylchlorosilane					x				
101947-16-4		Perfluorooctylethyltriethoxysilane	$C_8F_{17}CH_2CH_2Si(OCH_2CH_3)_3$				x				↓
146090-84-8		Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)-	$C_{10}F_{21}CH_2CH_2Si(OCH_2CH_3)_3$					x			x
78560-44-8		Perfluorooctylethyltrichlorosilane					x				
83048-65-1		Perfluorooctylethyltrimethoxysilane	$C_8F_{17}CH_2CH_2Si(OCH_3)_3$				x				
123445-18-1		Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)trimethoxy-	$C_{10}F_{21}CH_2CH_2Si(OCH_3)_3$					x			
246234-80-0		Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)tris(1-methylethoxy)-	$C_8F_{17}CH_2CH_2Si[OCH(CH_3)_2]_3$				x				x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
1189587-64-1		Silane, tetrakis[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]ethyl]-	$Si(CH_2CH_2SCH_2CH_2C_8F_{17})_4$				x				x
68187-42-8		Propanamide, 3-[(γ-ω-perfluoro-C_{4-10}-alkyl)thio] derivatives					x				
70969-47-0		Thiols, C_{8-20}, γ-ω-perfluoro, telomers with acrylamide				x					
95370-51-7		Carbamic acid, [2-(sulphothio)ethyl]-, C-(γ-ω-perfluoro-C_{6-9}-alkyl) esters, monosodium salts							x	7	
148240-85-1		1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C_{4-10}-alkyl)thio]methyl] derivatives, phosphates, ammonium salts					x			7	
148240-87-3		1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C_{6-12}-alkyl)thio]methyl] derivatives, phosphates, ammonium salts					x	x		7	
148240-89-5		1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C_{10-20}-alkyl)thio]methyl] derivs., phosphates, ammonium salts					x	x	x		
183146-60-3		Oxirane, methyl-, polymer with oxirane, mono[2-hydroxy-3-[(γ-ω-perfluoro-C_{8-20}-alkyl)thio]propyl] ethers				x					
71608-61-2		Pentanoic acid, 4,4-bis[(γ-ω-perfluoro-C_{8-20}-alkyl)thio]derivs., compds. with diethanolamine					x	x	x	7	
94200-45-0		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-, 1-(dihydrogen phosphate), ammonium salt (1:2)					x			7	
93776-00-2		2-Pentadecanol, 1,1'-[oxybis[(1-methyl-2,1-ethanediyl)oxy]]bis[4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafluoro-							x		
77117-48-7	F_8H_2	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_2H$				x				x
1835250-28-6	F_8H_3	Undecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_3H$				x				x
182130-12-7	F_8H_4	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_4H$				x				↑
1835250-47-9	F_8H_5	Tridecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_5H$				x				↑

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
182130-14-9	F_8H_6	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_6H$				x				↑
182130-15-0	F_8H_7	Pentadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_7H$				x				↑
6145-05-7	F_8H_8	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_8H$				x				↑
931415-52-0	F_8H_9	Heptadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_9H$				x				↑
138472-76-1	F_8H_{10}	Octadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_{10}H$				x				↑
117146-18-6	F_8H_{16}	Tetracosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_{16}H$				x				↑
133310-73-3	F_8H_{18}	Hexacosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_{18}H$				x				↑
137338-39-7	F_8H_{20}	Octacosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_{20}H$				x				↑
137338-40-0	F_8H_{22}	Triacontane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_{22}H$				x				↑
137338-41-1	F_8H_{24}	Dotriacontane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$F(CF_2)_8(CH_2)_{24}H$				x				↑
154478-87-2	$F_{10}H_2$	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_2H$					x			
1835251-22-3	$F_{10}H_3$	Tridecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_3H$					x			
1244062-17-6	$F_{10}H_4$	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_4H$					x			
250738-42-2	$F_{10}H_5$	Pentadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_5H$					x			
116177-54-9	$F_{10}H_6$	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_6H$					x			
200817-54-5	$F_{10}H_7$	Heptadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_7H$					x			
93454-70-7	$F_{10}H_8$	Octadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_8H$					x			
125635-85-0	$F_{10}H_9$	Nonadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_9H$					x			

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
90499-29-9	$F_{10}H_{10}$	Eicosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_{10}H$					x			
93454-71-8	$F_{10}H_{12}$	Docosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafluoro-	$F(CF_2)_{10}(CH_2)_{12}H$					x			
133299-41-9		Eicosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 13,13,14,14,15,15,16,16,17,17,18,18,19,19,20,20 ,20-tetratriacontafluoro-	$C_8F_{17}C_4H_8C_8F_{17}$				x				x
100550-08-1		Tetracosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,17, 17,18,18,19,19,20,20,21,21,22,22,23,23,24, 24,24-tetratriacontafluoro-	$C_8F_{17}C_8H_{16}C_8F_{17}$				x				x
1244062-16-5		9-Tetracosene, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$C_8F_{17}CH{=}CH(CH_2)_{14}H$						x	3, 4	x
31200-97-2		1-Undecanol, 4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)-	$(CF_3)_2CFC_6F_{12}CH_2CH_2CH_2OH$						x	3, 4	x
423-56-3	8:1 FTOH	1-Nonanol, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluoro-	$C_8F_{17}CH_2OH$						x	5	
307-37-9	9:1 FTOH	1-Decanol, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9, 10,10,10-nonadecafluoro-	$C_9F_{19}CH_2OH$						x	5	
307-46-0	10:1 FTOH	1-Undecanol, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9, 10,10,11,11,11-heneicosafluoro-	$C_{10}F_{21}CH_2OH$						x	5	
135984-68-8	8:2 FTAL	Decanal, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	$C_8F_{17}CH_2CHO$				x			7	
864551-38-2	10:2 FTAL	Dodecanal, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,12,12,12-heneicosafluoro-	$C_{10}F_{21}CH_2CHO$					x			
864551-40-6	10:2 FTUAL	2-Dodecenal, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11, 11,12,12,12-eicosafluoro-	$C_9F_{19}CF{=}CHCHO$					x			
63967-40-8	PFNAL	Nonanal, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluoro-	$C_8F_{17}CHO$						x	3	
335-73-9	PFDAL	Decanal, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-nonadecafluoro-	$C_9F_{19}CHO$						x	3	
63967-42-0	PFUnDAL	Undecanal, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heneicosafluoro-	$C_{10}F_{21}CHO$						x	3	
56900-98-2		Ethanol, 2-[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9, 10,10,10-heptadecafluorodecyl)oxy]ethoxy]-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_2OH$				x				
88243-13-4		Propanol, [2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 10-heptadecafluorodecyl)oxy]methylethoxy]-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_2OH$ (2 H are replaced by 2 CH_3)				x				

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
88243-12-3		Ethanol, 2-[2-[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]methylethoxy]methylethoxy]-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_3OH$ (2 H are replaced by 2 CH_3)				x				
55427-54-8		3,6,9,12-Tetraoxadocosan-1-ol, 15,15,16,16,17,17,18,18,19,19,20,20,21,21,22,22,22-heptadecafluoro-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_4OH$				x				x
88271-22-1		3,6,9,12-Tetraoxadocosan-1-ol, 15,15,16,16,17,17,18,18,19,19,20,20,21,21,22,22,22-heptadecafluorodimethyl-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_4OH$ (2 H are replaced by 2 CH_3)				x				x
88243-14-5		3,6,9,12-Tetraoxadocosan-1-ol, 15,15,16,16,17,17,18,18,19,19,20,20,21,21,22,22,22-heptadecafluorotetramethyl-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_4OH$ (4 H are replaced by 4 CH_3)				x				↑
88243-15-6		3,6,9,12,15-Pentaoxapentacosan-1-ol, 18,18,19,19,20,20,21,21,22,22,23,23,24,24,25,25,25-heptadecafluoropentamethyl-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_5OH$ (5 H are replaced by 5 CH_3)				x				
88247-39-6		3,6,9,12,15,18-Hexaoxaoctacosan-1-ol, 21,21,22,22,23,23,24,24,25,25,26,26,27,27,28,28,28-heptadecafluoro-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_6OH$				x				
88243-11-2		3,6,9,12,15,18-Hexaoxaoctacosan-1-ol, 21,21,22,22,23,23,24,24,25,25,26,26,27,27,28,28,28-heptadecafluoropentamethyl-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_6OH$ (5 H are replaced by 5 CH_3)				x				
88243-16-7		3,6,9,12,15,18-Hexaoxaoctacosan-1-ol, 21,21,22,22,23,23,24,24,25,25,26,26,27,27,28,28,28-heptadecafluoro hexamethyl-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_6OH$ (6 H are replaced by 6 CH_3)				x				
88243-10-1		3,6,9,12,15,18,21-Heptaoxahentriacontan-1-ol, 24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,31-heptadecafluoropentamethyl-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_7OH$ (5 H are replaced by 5 CH_3)				x				
88247-40-9		3,6,9,12,15,18,21,24-Octaoxatetratriacontan-1-ol, 27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,34-heptadecafluoro-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_8OH$				x				
88243-17-8		3,6,9,12,15,18,21,24-Octaoxatetratriacontan-1-ol, 27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,34-heptadecafluorooctamethyl-	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_8OH$ (8 H are replaced by 8 CH_3)				x				
88243-09-8		3,6,9,12,15-Pentaoxapentacosan-1-ol, 18,18,19,19,20,20,21,21,22,22,23,23,24,24,25,25,25-heptadecafluoropentamethyl-, acetate	$C_8F_{17}CH_2CH_2(OCH_2CH_2)_5OC(=O)CH_3$ (5 H are replaced by 5 CH_3)				x				x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
121500-31-0		1,2-Propanediol, 3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]-	$C_8F_{17}CH_2CH_2OCH_2CH(OH)CH_2OH$				x				x
67549-47-7		11,14,17,20,23,26,29,32-Octaoxaoctatetracontan-33-one, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	$C_8F_{17}(CH_2CH_2O)_8C(O)C_{15}H_{31}$				x				x
67535-33-5		Tridecanoic acid, 27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,34-heptadecafluoro-3,6,9,12,15,18,21,24-octaoxatetra triacont-1-yl ester	$C_8F_{17}(CH_2CH_2O)_9C(O)C_{12}H_{25}$				x				x
38565-53-6		Oxirane, 2-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononyl)-	$C_8F_{17}CH_2C_2OH_3$				x				x
114482-33-6		Oxirane, 2-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]methyl]-	$C_8F_{17}CH_2CH_2OCH_2C_2OH_3$				x				x
99679-40-0		1-Decanaminium, *N*,*N*-diethyl-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-2-hydroxy-*N*-methyl-, iodide (1:1)	I^- $C_8F_{17}CH(OH)CH_2N^+(CH_3)(C_2H_5)_2$				x				x
93776-18-2		1-Undecanaminium, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxy-*N*,*N*-bis(2-hydroxyethyl)-*N*-methyl-, iodide (1:1)	I^- $C_8F_{17}CH_2CH(OH)CH_2N^+(CH_3)(CH_2CH_2OH)_2$				x				x
94817-79-5		2-Undecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoro-1-[(1-methylpropyl) amino]-	$C_9F_{19}CH(OH)CH_2NHCH(CH_3)CH_2CH_3$						x	3, 4	x
94817-80-8		2-Dodecanol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-nonadecafluoro-1-[(1-methylpropyl) amino]-	$C_9F_{19}CH_2CH(OH)CH_2NHCH(CH_3)CH_2CH_3$						x	3, 4	x
121912-26-3		1-Propanaminium, 3-[[4-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]-1,4-dioxo-2-buten-1-yl]amino]-*N*,*N*,*N*-trimethyl-, iodide (1:1)	I^- $C_8F_{17}CH_2CH_2OC(O)CHCHC(O)NHCH_2CH_2CH_2N^+(CH_3)_3$				x				x
25935-14-2		Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, iodide (1:1)	I^- $C_8F_{17}CH_2CH_2N^+C_5H_5$				x				x
100155-23-5		Ethanaminium, *N*-ethyl-2-[[[[3-[[[[3-[[[[3-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]amino]methylphenyl]amino]carbonyl]amino]methylphenyl]amino]carbonyl]amino]methylphenyl]amino]carbonyl]oxy]-*N*,*N*-dimethyl-, ethyl sulfate	$C_2H_5OSO_3^-$ $C_8F_{17}CH_2CH_2O[C(O)NHC_6H_4NH]_3C(O)OCH_2CH_2N^+(CH_3)_2CH_2CH_3$ (3 H are replaced by 3 CH_3)				x				x
-		1-Decanamine, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-*N*,*N*-dimethyl-, *N*-oxide	$C_8F_{17}CH_2CH_2N(CH_3)_2O$				x				

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
-		1-Dodecanamine, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-nonadecafluoro-*N*,*N*-dimethyl-, *N*-oxide	$C_9F_{19}CH_2CH_2N(CH_3)_2O$						x	3, 4	
100107-48-0		Ethanaminium, *N*-ethyl-2-[[[[3-[[[3-[[[3-[[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]amino]methylphenyl]carbonimidoyl]amino]methylphenyl]carbonimidoyl]amino]methylphenyl]amino]carbonyl]oxy]-*N*,*N*-dimethyl-, ethyl sulfate	$C_2H_5OSO_3^-$ $C_8F_{17}CH_2CH_2OC(O)NHC_6H_4[N=C=NC_6H_4]_2NHC(O)OCH_2CH_2N^+(CH_3)_2CH_2CH_3$ (3 H are replaced by 3 CH_3)				x				x
2089109-26-0		1-Decanaminium, *N*-(carboxymethyl)-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-*N*,*N*-dimethyl-	$C_8F_{17}CH_2CH_2N^+(CH_3)_2CH_2COOH$				x				↓
2089109-27-1		1-Dodecanaminium, *N*-(carboxymethyl)-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-*N*,*N*-dimethyl-	$C_{10}F_{21}CH_2CH_2N^+(CH_3)_2CH_2COOH$					x			↓
145441-32-3		1-Decanaminium, *N*-(carboxymethyl)-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-*N*,*N*-dimethyl-, inner salt	$C_8F_{17}CH_2CH_2N^+(CH_3)_2CH_2COO^-$				x				x
171184-16-0		1-Dodecanaminium, *N*-(carboxymethyl)-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-nonadecafluoro-*N*,*N*-dimethyl-, inner salt	$C_9F_{19}CH_2CH_2CH_2N^+(CH_3)_2CH_2COO^-$						x	3, 4	
171184-17-1		1-Tetradecanaminium, *N*-(carboxymethyl)-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-tricosafluoro-*N*,*N*-dimethyl-, inner salt	$C_{11}F_{23}CH_2CH_2CH_2N^+(CH_3)_2CH_2COO^-$						x	3, 4	
171184-04-6		1-Dodecanaminium, *N*-(carboxymethyl)-3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-eicosafluoro-*N*,*N*-dimethyl-, inner salt	$C_9F_{19}CFHCH_2CH_2N^+(CH_3)_2CH_2COO^-$						x	3, 4	x
2089109-30-6		1-Dodecanaminium, *N*-(carboxymethyl)-5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heptadecafluoro-*N*,*N*-dimethyl-	$C_8F_{17}CH_2CH_2CH_2CH_2N^+(CH_3)_2CH_2COOH$				x				x
80234-03-3		1-Undecanaminium, 2-(acetyloxy)-*N*-(carboxymethyl)-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-*N*,*N*-dimethyl-, inner salt	$C_8F_{17}CH_2CH(OC(O)CH_3)CH_2N^+(CH_3)_2CH_2COO^-$				x				x
80244-66-2		1-Tridecanaminium, 2-(acetyloxy)-*N*-(carboxymethyl)-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafluoro-*N*,*N*-dimethyl-, inner salt	$C_{10}F_{21}CH_2CH(OC(O)CH_3)CH_2N^+(CH_3)_2CH_2COO^-$					x			↑

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
34143-74-3		1-Decanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 10-heptadecafluoro-	$C_8F_{17}CH_2CH_2SH$				x				
76830-13-2		2-Propenamide, telomer with 3,3,4,4,5,5,6,6,7,7, 8,8,9,9,10,10,10-heptadecafluoro-1-decanethiol	$(CH_2CHC(O)NH_2)_x$ $C_8F_{17}CH_2CH_2SH$ (formulas of the starting materials, not of the final product)				x				
121913-10-8		2-Propenamide, telomer with 3,3,4,4,5,5,6,6,7,7, 8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-1-dodecanethiol	$(CH_2CHC(O)NH_2)_x$ $C_{10}F_{21}CH_2CH_2SH$ (formulas of the starting materials, not of the final product)					x			
39108-34-4	8:2 FTSA	1-Decanesulfonic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9, 9,10,10,10-heptadecafluoro-	$C_8F_{17}CH_2CH_2SO_3H$				x				
120226-60-0	10:2 FTSA	1-Dodecanesulfonic acid, 3,3,4,4,5,5,6,6,7,7,8, 8,9,9,10,10,11,11,12,12,12-heneicosafluoro-	$C_{10}F_{21}CH_2CH_2SO_3H$					x			
438237-73-1	8:2 FTSA-K	1-Decanesulfonic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9, 9,10,10,10-heptadecafluoro-, potassium salt (1:1)	K^+ $C_8F_{17}CH_2CH_2SO_3^-$				x				
63225-57-0		1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hepta decafluoro-, 1-(hydrogen sulfate), ammonium salt (1:1)	NH_4^+ $C_8F_{17}CH_2CH_2OSO_3^-$				x				
63225-58-1		1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,12,12,12-heneicosafluoro-, 1-(hydrogen sulfate), ammonium salt (1:1)	NH_4^+ $C_{10}F_{21}CH_2CH_2OSO_3^-$					x			
54950-06-0		Butanedioic acid, 2-sulfo-, 1,4-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester, sodium salt (1:1)	Na^+ $C_8F_{17}CH_2CH_2OC(O)CH_2CH(SO_3^-)C(O)O$ $CH_2CH_2C_8F_{17}$				x				x
441765-12-4		Acetic acid, 2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 10-heptadecafluorodecyl)thio]-, lithium salt (1:1)	Li^+ $C_8F_{17}CH_2CH_2SCH_2COO^-$				x				
54207-62-4		Propanoic acid, 3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10, 10,10-heptadecafluorodecyl)thio]-	$C_8F_{17}CH_2CH_2SCH_2CH_2COOH$				x				
481050-04-8		Propanoic acid, 3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10, 10,10-heptadecafluorodecyl)thio]-, lithium salt (1:1)	Li^+ $C_8F_{17}CH_2CH_2SCH_2CH_2COO^-$				x				
441765-14-6		Ethanesulfonic acid, 2-[(3,3,4,4,5,5,6,6,7,7,8,8,9, 9,10,10,10-heptadecafluorodecyl)thio]-, lithium salt (1:1)	Li^+ $C_8F_{17}CH_2CH_2SCH_2CH_2SO_3^-$				x				
160819-47-6		2-Propanol, 1,3-bis[(3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10,10-heptadecafluorodecyl)thio]-	$HOCH(CH_2SCH_2CH_2C_8F_{17})_2$				x				x
160819-50-1		2-Propanol, 1-[(2-dodecylhexadecyl)oxy]-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-	$C_8F_{17}CH_2CH_2SCH_2CH(OH)CH_2OCH_2CH(C_{14}H_{29})C_{12}H_{25}$				x				x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
160819-49-8		2-Propanol, 1-[(2-decyltetradecyl)oxy]-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-	$C_8F_{17}CH_2CH_2SCH_2CH(OH)CH_2OCH_2CH(C_{10}H_{21})C_{12}H_{25}$				x				x
121912-28-5		2,5,8,11,14,17,20,23-Octaoxa-27-thiaheptatriacontan-25-ol, 30,30,31,31,32,32,33,33,34,34,35,35,36,36,37,37,37-heptadecafluoro-	$C_8F_{17}CH_2CH_2SCH_2CH(OH)(CH_2OCH_2)_8$				x				x
727351-53-3	8:2 FTSHA	1-Propanaminium, 2-hydroxy-*N*,*N*,*N*-trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-	$C_8F_{17}CH_2CH_2SCH_2CH(OH)CH_2N^+(CH_3)_3$				x				x
1513864-17-9	10:2 FTSHA	1-Propanaminium, 2-hydroxy-*N*,*N*,*N*-trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)sulfinyl]-	$C_{10}F_{21}CH_2CH_2SCH_2CH(OH)CH_2N^+(CH_3)_3$					x			↑
71940-07-3		1-Propanaminium, 2-hydroxy-*N*,*N*,*N*-trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-, chloride (1:1)	Cl^- $C_8F_{17}CH_2CH_2SCH_2CH(OH)CH_2N^+(CH_3)_3$				x				↑
–		1-Propanaminium, 2-hydroxy-*N*,*N*,*N*-trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)thio]-, chloride (1:1)	Cl^- $C_{10}F_{21}CH_2CH_2SCH_2CH(OH)CH_2N^+(CH_3)_3$					x			↑
71625-52-0		Ethanaminium, 2-[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]ethoxy]-*N*,*N*,*N*-trimethyl-, iodide (1:1)	I^- $C_8F_{17}CH_2CH_2SCH_2CH_2OCH_2CH_2N^+(CH_3)_3$				x				x
1513863-91-6		Acetamide, *N*-[3-(dimethylamino)propyl]-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-	$C_8F_{17}CH_2CH_2SCH_2C(O)NHCH_2CH_2CH_2N(CH_3)_2$				x				x
1513863-92-7		Acetamide, *N*-[3-(dimethylamino)propyl]-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl) thio]-	$C_{10}F_{21}CH_2CH_2SCH_2C(O)NHCH_2CH_2CH_2N(CH_3)_2$					x			↑
704870-51-9		1-Propanaminium, 3-[[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]acetyl]amino]-*N*,*N*,*N*-trimethyl-	$C_8F_{17}CH_2CH_2SCH_2C(O)NHCH_2CH_2CH_2N^+(CH_3)_3$				x				x
1513864-01-1		1-Propanaminium, 3-[[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)thio]acetyl]amino]-*N*,*N*,*N*-trimethyl-	$C_{10}F_{21}CH_2CH_2SCH_2C(O)NHCH_2CH_2CH_2N^+(CH_3)_3$					x			↑
67333-62-4		1-Propanaminium, *N*-ethyl-3-[[3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-2-methyl-1-oxopropyl]amino]-*N*,*N*-dimethyl-, ethyl sulfate (1:1)	$C_2H_5OSO_3^-$ $C_8F_{17}CH_2CH_2SCH_2CH(CH_3)C(O)NHCH_2CH_2CH_2N^+(CH_3)_2C_2H_5$				x				x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
1513863-96-1	8:2 FTSAB	1-Propanaminium, *N*-(carboxymethyl)-3-[[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]acetyl] amino]-*N*,*N*-dimethyl-, inner salt	$C_8F_{17}CH_2CH_2SCH_2C(O)NHCH_2CH_2CH_2N^+(CH_3)_2CH_2COO^-$				x				x
1513863-97-2	10:2 FTSAB	1-Propanaminium, *N*-(carboxymethyl)-3-[[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12, 12,12-heneicosafluorododecyl) thio]acetyl] amino]-*N*,*N*-dimethyl-, inner salt	$C_{10}F_{21}CH_2CH_2SCH_2C(O)NHCH_2CH_2CH_2N^+(CH_3)_2CH_2COO^-$					x			↑
1383438-89-8		Butanoic acid, 4-[[3-(dimethylamino)propyl] amino]-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) thio]-4-oxo-	$C_8F_{17}CH_2CH_2SCH(COO^-)CH_2C(O)NHCH_2CH_2CH_2NH^+(CH_3)_2$				x				x
1383438-90-1		Butanoic acid, 4-[[3-(dimethylamino)propyl] amino]-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11, 11,12,12,12-heneicosa fluorododecyl)thio]-4-oxo-	$C_{10}F_{21}CH_2CH_2SCH(COO^-)CH_2C(O)NHCH_2CH_2CH_2NH^+(CH_3)_2$					x			↑
93128-66-6		Glycine, *N*-[3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 10-heptadecafluorodecyl)thio]-2-hydroxypropyl]-*N*-methyl-	$C_8F_{17}CH_2CH_2SCH_2CH(OH)CH_2N(CH_3)CH_2COOH$				x				x
755698-73-8	8:2 FTSAS	1-Propanesulfonic acid, 2-[[3-[(3,3,4,4,5,5,6,6, 7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-1-oxopropyl]amino]-2-methyl-	$C_8F_{17}CH_2CH_2SCH_2CH_2C(O)NHC(CH_3)_2CH_2SO_3H$				x				x
690947-60-5	10:2 FTSAS	1-Propanesulfonic acid, 2-[[3-[(3,3,4,4,5,5,6,6, 7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro dodecyl)thio]-1-oxopropyl] amino]-2-methyl-	$C_{10}F_{21}CH_2CH_2SCH_2CH_2C(O)NHC(CH_3)_2CH_2SO_3H$					x			↑
62880-96-0		1-Propanesulfonic acid, 2-[[3-[(3,3,4,4,5,5,6,6, 7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]-1-oxopropyl]amino]-2-methyl-, sodium salt (1:1)	$Na^+ C_8F_{17}CH_2CH_2SCH_2CH_2C(O)NHC(CH_3)_2CH_2SO_3^-$				x				x
62880-98-2		1-Propanesulfonic acid, 2-[[3-[(3,3,4,4,5,5,6,6,7, 7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro dodecyl)thio]-1-oxopropyl]amino]-2-methyl-, sodium salt (1:1)	$Na^+ C_{10}F_{21}CH_2CH_2SCH_2CH_2C(O)NHC(CH_3)_2CH_2SO_3^-$					x			↑
1513864-19-1		1-Propanaminium, 2-hydroxy-*N*,*N*,*N*-trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)sulfinyl]-	$C_8F_{17}CH_2CH_2S(O)CH_2CH(OH)CH_2N^+(CH_3)_3$				x				x
1513864-12-4		1-Propanesulfonic acid, 2-[[3-[(3,3,4,4,5,5,6,6,7, 7,8,8,9,9,10,10,10-heptadecafluorodecyl) sulfinyl]-1-oxopropyl]amino]-2-methyl-	$C_8F_{17}CH_2CH_2S(O)CH_2CH_2C(O)NHC(CH_3)_2CH_2SO_3H$				x				x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
1513864-11-3		1-Propanesulfonic acid, 2-[[3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)sulfinyl]-1-oxopropyl]amino]-2-methyl-	$C_{10}F_{21}CH_2CH_2S(O)CH_2CH_2C(O)NHC(CH_3)_2CH_2SO_3H$					x			↑
80475-33-8		1-Decanesulfonamide, *N*-[3-(dimethyloxidoamino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	$C_8F_{17}CH_2CH_2SO_2NHCH_2CH_2CH_2N(=O)(CH_3)_2$				x				x
34455-23-7		1-Decanesulfonamide, *N*-[3-(dimethylamino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	$C_8F_{17}CH_2CH_2SO_2NHCH_2CH_2CH_2N(CH_3)_2$				x				x
34455-24-8		1-Dodecanesulfonamide, *N*-[3-(dimethylamino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-	$C_{10}F_{21}CH_2CH_2SO_2NHCH_2CH_2CH_2N(CH_3)_2$					x			↑
438237-77-5		1-Propanaminium, 3-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)sulfonyl]amino]-*N*,*N*,*N*-trimethyl-, 4-methylbenzene sulfonate (1:1)	$CH_3C_6H_4SO_3^-$ $C_8F_{17}CH_2CH_2SO_2NHCH_2CH_2CH_2N^+(CH_3)_3$				x				x
34455-21-5	8:2 FTAB	1-Propanaminium, *N*-(carboxymethyl)-3-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)sulfonyl]amino]-*N*,*N*-dimethyl-, inner salt	$C_8F_{17}CH_2CH_2SO_2NHCH_2CH_2CH_2N^+(CH_3)_2CH_2COO^-$				x				x
34455-35-1	10:2 FTAB	1-Propanaminium, *N*-(carboxymethyl)-3-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl)sulfonyl]amino]-*N*,*N*-dimethyl-, inner salt	$C_{10}F_{21}CH_2CH_2SO_2NHCH_2CH_2CH_2N^+(CH_3)_2CH_2COO^-$					x			↑
34695-29-9		Ethanaminium, *N*-(2-carboxyethyl)-2-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)sulfonyl]amino]-*N*,*N*-dimethyl-, inner salt	$C_8F_{17}CH_2CH_2SO_2NHCH_2CH_2N^+(CH_3)_2CH_2CH_2COO^-$				x				x
34695-31-3		Ethanaminium, *N*-(2-carboxyethyl)-2-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl) sulfonyl]amino]-*N*,*N*-dimethyl-, inner salt	$C_{10}F_{21}CH_2CH_2SO_2NHCH_2CH_2N^+(CH_3)_2CH_2CH_2COO^-$					x			↑
441765-18-0		Glycine, *N*-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)sulfonyl]-*N*-propyl-, lithium salt	Li^+ $C_8F_{17}CH_2CH_2SO_2N(C_3H_7)CH_2COO^-$				x				x
98900-53-9		β-Alanine, *N*-(2-carboxyethyl)-*N*-[6-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)sulfonyl]amino]hexyl]-, dipotassium salt	2 K^+ $C_8F_{17}CH_2CH_2SO_2NHC_6H_{12}N(CH_2CH_2COO^-)_2$				x				x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
Fluorotelomer-based side-chain fluorinated polymers											
115592-83-1		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, hexadecyl 2-propenoate, *N*-(hydroxymethyl)-2-propenamide, octadecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate				x	x	x	x		
129783-45-5		2-Propenoic acid, 2-methyl-, C_{10-16}-alkyl esters, polymers with 2-hydroxyethyl methacrylate, Me methacrylate and γ-ω-perfluoro-C_{8-14}-alkyl acrylate				x	x	x	x		
144031-01-6		2-Propenoic acid, dodecyl ester, polymers with Bu (1-oxo-2-propenyl)carbamate and γ-ω-perfluoro-C_{8-14}-alkyl acrylate				x	x	x	x		
116984-14-6		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, alpha-(2-methyl-1-oxo-2-propenyl)-omega-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluorohexadecyl 2-propenoate, octadecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-tritriacontafluorooctadecyl 2-propenoate				x				7	
74049-08-4	PFOEA	Poly[2-(perfluorooctyl)ethyl acrylate]				x	x				
		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester, homopolymer									

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
65104-45-2		2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-methyl-2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-methyl-2-propenoate				x	x	x	x		
53515-73-4		2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester, polymer with 2-propenoic acid							x	7	
93480-00-3		Poly(oxy-1,2-ethanediyl),a-[2-[2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) amino]ethyl]-ω-hydroxy				x	x			7	
934505-67-6		2-Propenoic acid, polymer with 2-ethenylnaphthalene and 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl 2-propenoate	$C_8F_{17}CH_2CH(OH)CH_2OC(O)CHCH_2$ $C_{12}H_{10}CH_2CHCOOH$ (formulas of the starting materials, not of the final product)			x	x				
142636-88-2		2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-propenoate	$C_8F_{17}CH_2CH_2OC(O)CHCH_2$ $C_{10}F_{21}CH_2CH_2OC(O)CHCH_2$ $C_{12}F_{25}CH_2CH_2OC(O)CHCH_2$ $C_{18}H_{37}OC(O)C(CH_3)CH_2$ (formulas of the starting materials, not of the final product)			x	x	x			
Other substances											
90622-99-4		Amides, C_{7-19}, α-ω-perfluoro-*N*,*N*-bis(hydroxyethyl)							x	7	
71356-38-2		Piperazinium, 1-(carboxymethyl)-1-(2-hydroxyethyl)-4-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-nonadecafluoro-1-oxodecyl)-, inner salt							x		
85681-64-7		2-Propenoic acid, perfluoro-C_{8-16}-alkyl esters							x		

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
125328-29-2		2-Propenoic acid, 2-methyl-, C_{10-16}-alkyl esters, polymers with 2-hydroxyethylmethacrylate, Me methacrylate and perfluoro-C_{8-14}-alkyl acrylate							x		
325459-92-5		Phosphine, tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,8,9,9,10,10,10-heptadecafluorodecyl)phenyl]-					x			7	
326475-46-1		Palladium, dichlorobis[tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,8,9,9,10,10,10-heptadecafluorodecyl)phenyl] phosphine-κP]-					x			7	
39186-68-0		1-Propanaminium, *N*-(2-carboxyethyl)-*N*,*N*-bis(2-hydroxyethyl)-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, inner salt							x	7	
41358-63-8		Octanamide, *N*-[3-[bis(2-hydroxyethyl)amino]propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-							x	7	
24216-05-5		Benzenesulfonyl chloride, 3,4-bis[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-							x	7	
53517-98-9		1-Propanaminium,*N*,*N*,*N*-trimethyl-3- [(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) amino]-, chloride (1:1)	Cl^- $C_7F_{15}C(O)NHCH_2CH_2CH_2N^+(CH_3)_3$						x	7	
335-90-0		1-Propanaminium, *N*,*N*,*N*-trimethyl-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) amino]-, iodide (1:1)	I^- $C_7F_{15}C(O)NHCH_2CH_2CH_2N^+(CH_3)_3$						x	6	x
85938-56-3		Octanamide, *N*-(3-aminopropyl)-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-							x	7	
89685-61-0		1-Propanesulfonic acid,3-[ethyl (2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-,sodium salt (1:1)							x		
84029-60-7		Nonene, heptadecafluoro-1-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)oxy]-							x	7	
138473-79-7		Glycine, *N*-ethyl-*N*-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)-, ammonium salt	NH_4^+ $C_7F_{15}C(O)N(C_2H_5)CH_2COO^-$						x	6	x
89932-71-8		Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-*N*-(14-hydroxy-3,6,9,12-tetraoxatetradec-1-yl)-	$C_7F_{15}C(O)NHCH_2CH_2(OCH_2CH_2)_4OH$						x	6	x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
178766-44-4		Ethanaminium, *N*,*N*,*N*-trimethyl-2-[(2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-1-oxooctyl)amino]-, chloride (1:1)	$Cl^- C_7F_{15}C(O)NHCH_2CH_2N^+(CH_3)_3$						x	6	x
376-23-8		Octanamide, *N*-[3-(dimethylamino)propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-	$C_7F_{15}C(O)NHCH_2CH_2CH_2N(CH_3)_2$						x		x
91707-61-8		1-Pentanaminium, *N*,*N*,*N*-trimethyl-5-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, iodide (1:1)	$I^- C_7F_{15}C(O)NHCH_2CH_2CH_2CH_2CH_2N^+(CH_3)_3$						x	6	x
30295-53-5		Octanamide, *N*-[3-(dimethyloxidoamino)propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-	$C_7F_{15}C(O)NHC_3H_6N(O)(CH_3)_2$						x	6	x
308-01-0		Pyridinium, 1-[2-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]ethyl]-, chloride (1:1)	$Cl^- C_7F_{15}C(O)NHCH_2CH_2N^+C_5H_5$						x	6	x
331755-02-3		Pyridinium, 1-[2-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]ethyl]-, bromide (1:1)	$Br^- C_7F_{15}C(O)NHCH_2CH_2N^+C_5H_5$						x	6	↑
103555-98-2		Piperazinium, 1-(2-hydroxyethyl)-1-methyl-4-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)-, chloride (1:1)	$Cl^- C_7F_{15}C(O)NC_4H_8N^+(CH_3)CH_2CH_2OH$						x		x
90179-39-8		1-Propanaminium, *N*-(carboxymethyl)-*N*,*N*-dimethyl-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, inner salt	$C_7F_{15}C(O)NHCH_2CH_2CH_2N^+(CH_3)_2CH_2COO^-$						x	6	x
5158-52-1		1-Propanaminium, *N*-(2-carboxyethyl)-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-*N*,*N*-dimethyl-, inner salt	$C_7F_{15}C(O)NHCH_2CH_2CH_2N^+(CH_3)_2CH_2CH_2COO^-$						x	6	x
57670-46-9		Ethanesulfonic acid, 2-[ethyl(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, potassium salt (1:1)	$K^+ C_7F_{15}C(O)N(C_2H_5)CH_2CH_2SO_3^-$						x	6	x
98900-76-6		1-Propanesulfonic acid, 3-[(3-aminopropyl)(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-2-hydroxy-, sodium salt (1:1)	$Na^+ C_7F_{15}C(O)N(C_3H_6NH_2)CH_2CH(OH)CH_2SO_3^-$						x	6	x
98900-75-5		Benzenesulfonic acid, 4-[[[3-(methylamino)propyl](2,2,3,3,4,4 ,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]methyl]-, sodium salt (1:1)	$Na^+ C_7F_{15}C(O)N(C_3H_6NHCH_3)CH_2C_6H_4SO_3^-$						x	6	x
98046-76-5		Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-*N*-[3-(trimethoxysilyl)propyl]-	$C_7F_{15}C(O)NHCH_2CH_2CH_2Si(OCH_3)_3$						x	6	x

				(i)[b]	(ii)[c]	(iii)[d]					
				PFOA	PFOA salts	PFOA-related compounds					
CAS No.[a]	Acronym	Designation	Condensed structural formula			(a)[e]	(b)[f]	(c)[g]	Other[h]	Ref[i]	2D structure available in Table 3[j]
154380-30-0		Poly(oxy-1,2-ethanediyl), α-[dimethoxy[3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]propyl]silyl]-ω-[[dimethoxy[3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]propyl]silyl]oxy]-	$C_7F_{15}C(O)NHCH_2CH_2CH_2Si(OCH_3)_2(OCH_2CH_2)_xOSi(OCH_3)_2CH_2CH_2CH_2NHC(O)C_7F_{15}$						x	6	x

Table 2: Indicative list of substances not covered by the listing of PFOA, its salts and PFOA-related compounds (ver. February 2022)

For the purpose of this indicative list, fluoropolymers refer to a distinct subset of fluorinated polymers, namely, those made by (co)polymerization of olefinic monomers, at least one of which contains F bound to one or both of the olefinic C atoms, to form a carbon-only polymer backbone with F atoms directly attached to it, e.g., polytetrafluoroethylene. Fluoropolymers include those commonly referred to by the acronyms PTFE, FEP, PFA, ETFE, ECTFE, PVDF, PVF, THV, FEPM, FKM, FFKM, FEVE, EFEP, CPT, and MFA, as well as fluorinated ionomers and amorphous fluoropolymers (Buck et al. in 2011).

Notes:

a. Hyperlinks to the CAS Common Chemistry database are provided for those CAS numbers that have entries in that database;

b. C_8F_{17}-X, where X= F, Cl, Br;

c. Fluoropolymers that are covered by $CF_3[CF_2]_n$-R', where R'=any group, n>16;

d. Perfluoroalkyl carboxylic and phosphonic acids (including their salts, esters, halides and anhydrides) with ≥8 perfluorinated carbons;

e. Perfluoroalkane sulfonic acids (including their salts, esters, halides and anhydrides) with ≥9 perfluorinated carbons;

f. Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF), as listed in Annex B to the Convention.

			Out of scope: compounds that do not degrade to PFOA					
CAS No.[a]	**Acronym**	**Designation**	**(i)[b]**	**(ii)[c]**	**(iii)[d]**	**(iv)[e]**	**(v)[f]**	**Other**
PFOA								
Fluorotelomer alcohols								
647-42-7	6:2 FTOH	6:2 Fluorotelomer alcohol						x
		1-Octanol, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-						
Perfluoroalkyl phosphonic acids (PFPAs)								
68412-68-0		Phosphonic acid, perfluoro-C_{6-12}-alkyl derivs.			x			
Polyfluoroalkyl carboxylic acids								
1765-48-6		Undecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-eicosafluoro-						x
307-71-1		Undecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-eicosafluoro-, potassium salt						x

			Out of scope: compounds that do not degrade to PFOA					
CAS No.[a]	Acronym	Designation	(i)[b]	(ii)[c]	(iii)[d]	(iv)[e]	(v)[f]	Other
Perfluoroalkylcarboxylic acids other than PFOA, their isomers, and salts								
375-22-4	PFBA	Perfluorobutanoic acid						x
2706-90-3	PFPeA	Perfluoropentanoic acid						x
307-24-4	PFHxA	Perfluorohexanoic acid						x
375-85-9	PFHpA	Perfluoroheptanoic acid						x
375-95-1	C_9-PFCA or PFNA	Perfluorononan-1-oic acid			x			
335-76-2	C_{10}-PFCA or PFDA	Perfluorodecanoic acid			x			
2058-94-8	C_{11}-PFCA or PFUnA	Perfluoroundecanoic acid			x			
307-55-1	C_{12}-PFCA or PFDoA	Perfluorododecanoic acid			x			
72629-94-8	C_{13}-PFCA or PFTrA	Perfluorotridecanoic acid			x			
376-06-7	C_{14}-PFCA or PFTeA	Perfluorotetradecanoic acid			x			
141074-63-7	C_{15}-PFCA	Perfluoropentadecanoic acid			x			
67905-19-5	C_{16}-PFCA	Perfluorohexadecanoic acid			x			
57475-95-3	C_{17}-PFCA	Perfluoroheptadecanoic acid			x			
16517-11-6	C_{18}-PFCA	Perfluorooctadecanoic acid			x			
133921-38-7	C_{19}-PFCA	Perfluorononadecanoic acid			x			
68310-12-3	C_{20}-PFCA	Perfluoroeicosanoic acid			x			
15811-52-6		Dodecanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-docosafluoro-11-(trifluoromethyl)-						x
16486-96-7		Dodecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-docosafluoro-11-(trifluoromethyl)-			x			
18024-09-4		Tetradecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-hexacosafluoro-13-(trifluoromethyl)-			x			

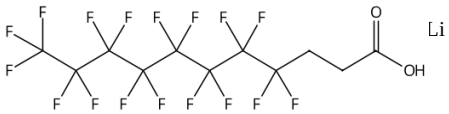
			Out of scope: compounds that do not degrade to PFOA					
CAS No.[a]	Acronym	Designation	(i)[b]	(ii)[c]	(iii)[d]	(iv)[e]	(v)[f]	Other
68015-87-2		Dodecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-docosafluoro-11-(trifluoromethyl)-, compd. With ethanamine (1:1)			x			
68025-62-7		Tetradecanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-hexacosafluoro-13-(trifluoromethyl)-						x
3108-42-7		Ammonium nonadecafluorodecanoate			x			
3658-63-7		Decanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-octadecafluoro-9-(trifluoromethyl)-, ammonium salt (1:1)			x			
3793-74-6		Ammonium tricosafluorododecanoate			x			
Perfluoroalkanesulfonic acids								
375-73-5	PFBS	Perfluorobutane sulfonic acid						x
2706-91-4	PFPeS	Perfluoropentane sulfonic acid						x
355-46-4	PFHxS	Perfluorohexane sulfonic acid						x
375-92-8	PFHpS	Perfluoroheptane sulfonic acid						x
1763-23-1	PFOS (3)	Perfluorooctane sulfonic acid					x	
Per- and polyfluoroalkyl ether carboxylic acids								
958445-44-8	ADONA	Propanoic acid, 2,2,3,3-tetrafluoro-3-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]-, ammonium salt (1:1)						x
908020-52-0	EEA-NH4	Ammonium salt of perfluoro[(2-ethyloxy-ethoxy)acetic acid						x
80153-82-8	EEA	Perfluoro[(2-ethyloxy-ethoxy)acetic acid						x
Fluoropolymers								
9002-84-0	PTFE	Polytetrafluoroethylene		x				
25067-11-2	FEP	Fluorinated Ethylene Propylene Copolymer		x				

			Out of scope: compounds that do not degrade to PFOA					
CAS No.[a]	**Acronym**	**Designation**	**(i)[b]**	**(ii)[c]**	**(iii)[d]**	**(iv)[e]**	**(v)[f]**	**Other**
26655-00-5	PFA	Perfluoro Alkoxy Polymer Propane,1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]-,polymer with 1 ,1,2,2 -tetrafluoroethene		x				
31784-04-0		Perfluoro Alkoxy Polymer Ethene, 1,1,2,2-tetrafluoro-, polymer with 1,1,2-trifluoro-2-(1,1,2,2,2-pentafluoroethoxy) ethane		x				
26425-79-6	MFA	Perfluoro Methyl Alkoxy Polymer Ethene, 1,1,2,2-tetrafluoro-, polymer with 1,2,2-trifluoro-2-(trifluoromethoxy)ethene		x				

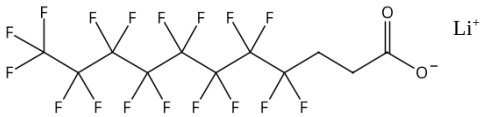
Table 3: 2D structural formulas for some selected substances added by Switzerland to the indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds (ver. February 2022)

Note:

The structural formulas presented in Table 1 were directly taken from Chemical Abstracts Service's (CAS) **SciFinder^{n}** [4].Please note that most of the anionic PFASs are therefore displayed in their neutral form in this document. Strictly speaking, this is not correct. The correct form is given in the condensed structural formula added to the indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds in the submission of Switzerland. An example of the incorrect and correct forms is shown below:

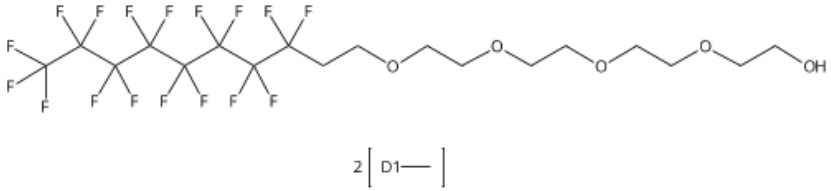


Incorrect form

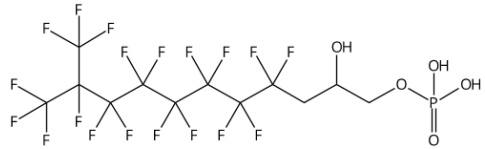
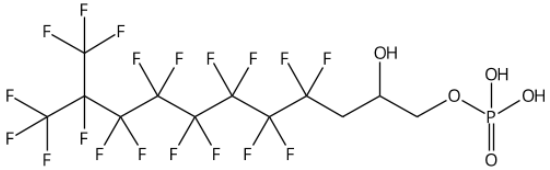
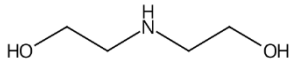
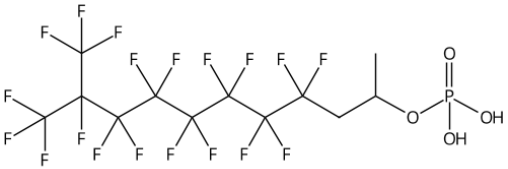
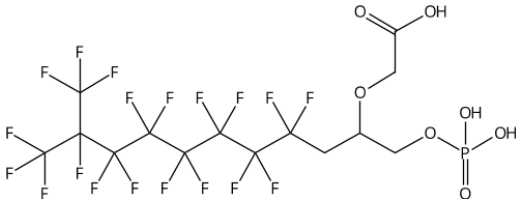


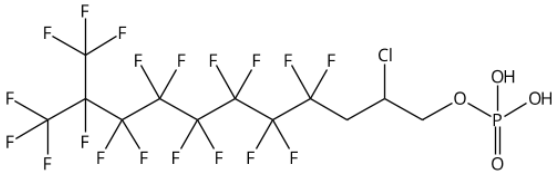
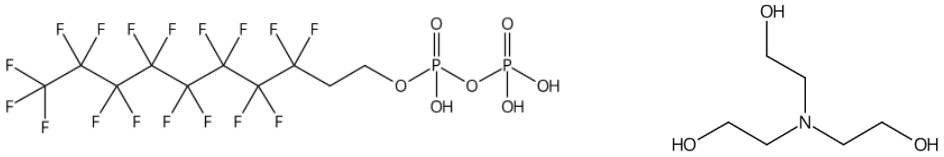
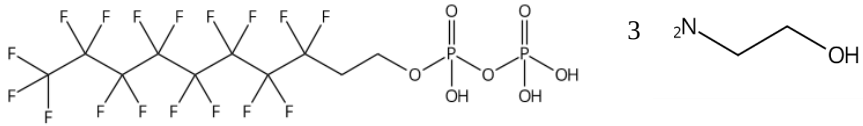
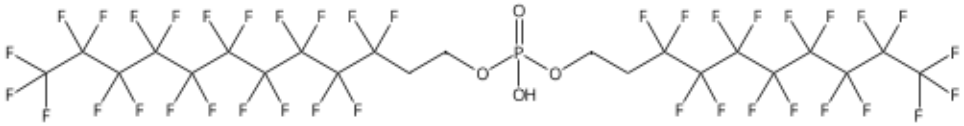
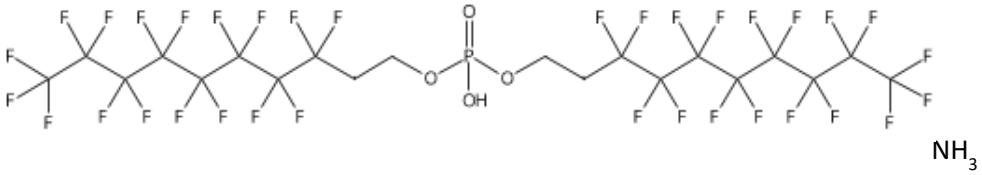
Correct form

Some substances do have an unknown or variable structure. In the structural formulas from SciFinder^{n}, "D1" indicates that it is unknown where the moiety in square brackets is connected to the structural formula above (see below for the example of CAS No. 88271-22-1).



[4] https://www.cas.org/products/scifinder.

CAS No.	2D Structural Formula
Fluorotelomer phosphate esters (PAPs)	
63295-18-1	 2 NH_3
63295-19-2	 
63295-23-8	 2 NH_3
63295-24-9	 2 NH_3

CAS No.	2D Structural Formula
63295-22-7	
98005-85-7	
98005-84-6	
1158182-60-5	
93776-20-6	

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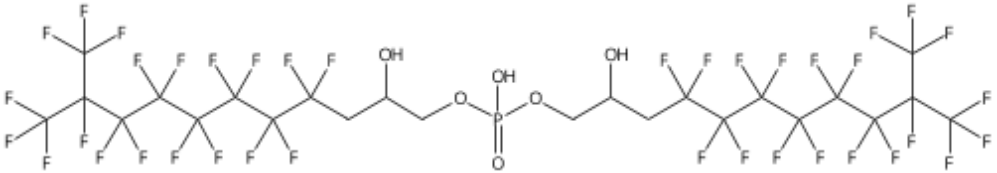
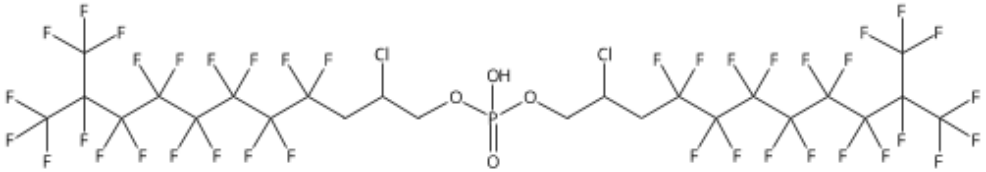
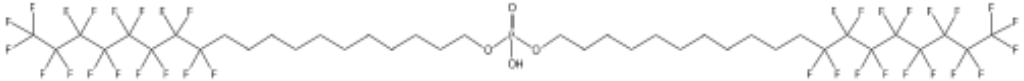
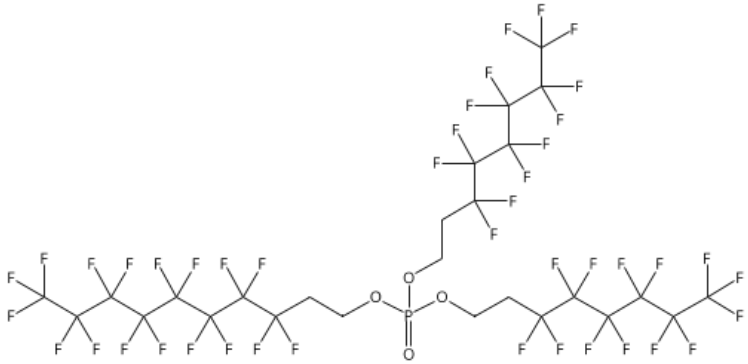
63295-20-5	
63295-26-1	
2343-53-5	
1578186-53-4	

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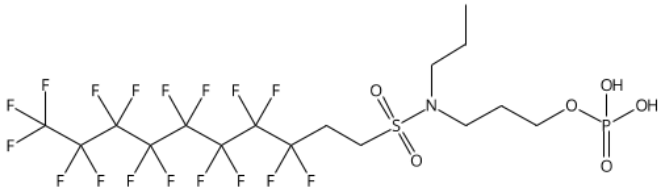
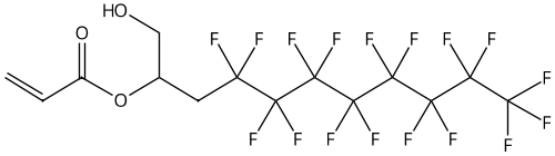
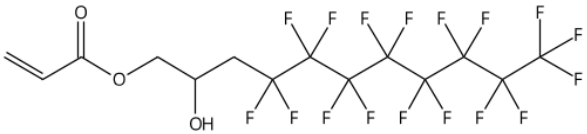
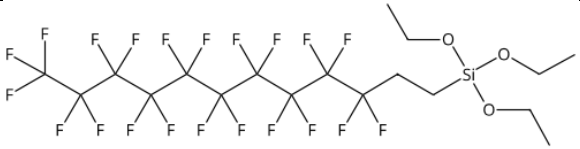
441765-20-4	 2 Na
Fluorotelomer acrylates and methacrylates (FTACs and FTMACs)	
146955-29-5	
76962-34-0	
Other fluorotelomer-based non-polymers	
146090-84-8	

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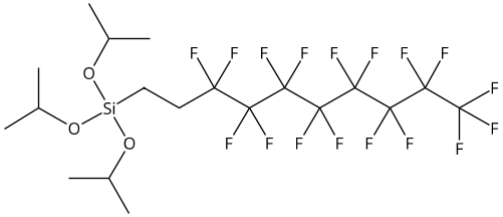
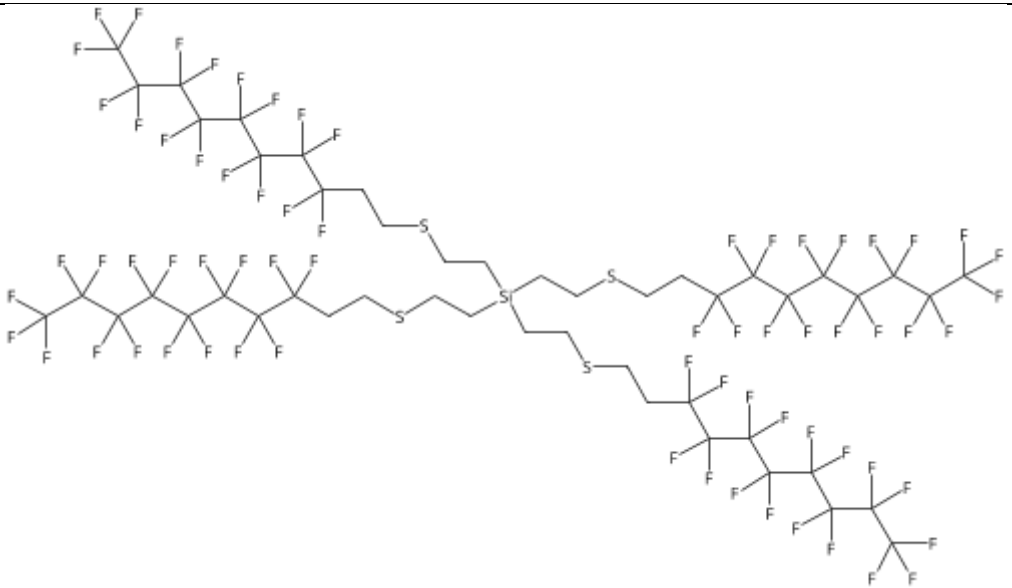
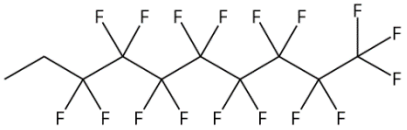
246234-80-0	
1189587-64-1	
77117-48-7	

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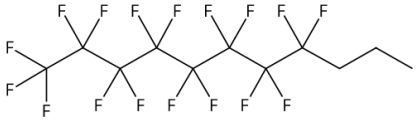
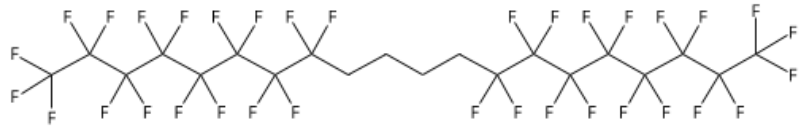
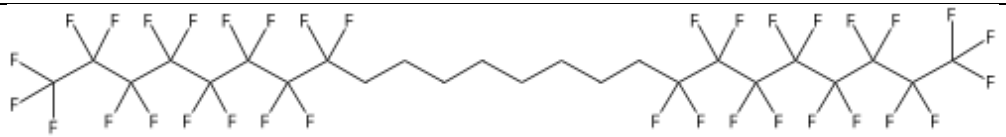
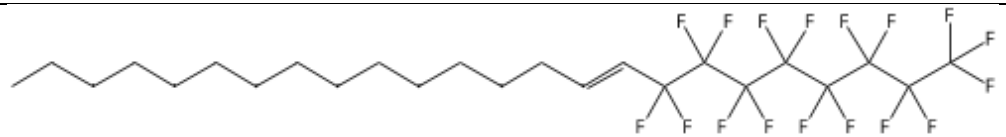
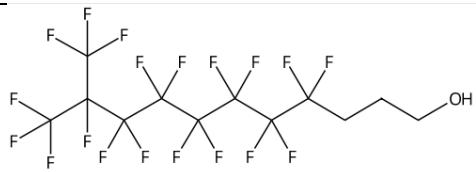
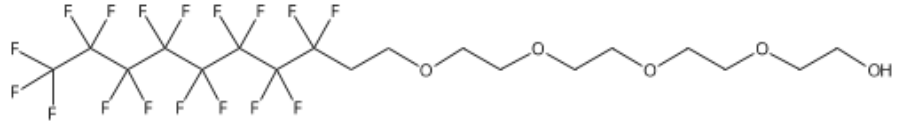
1835250-28-6	
133299-41-9	
100550-08-1	
1244062-16-5	
31200-97-2	
55427-54-8	

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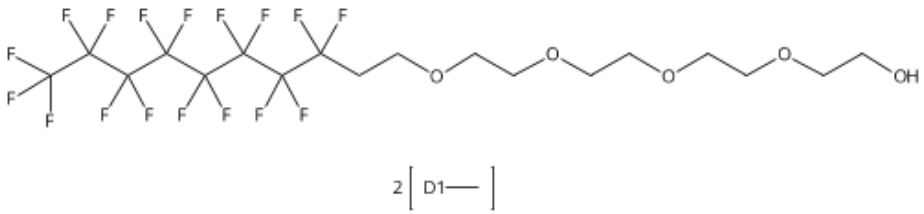
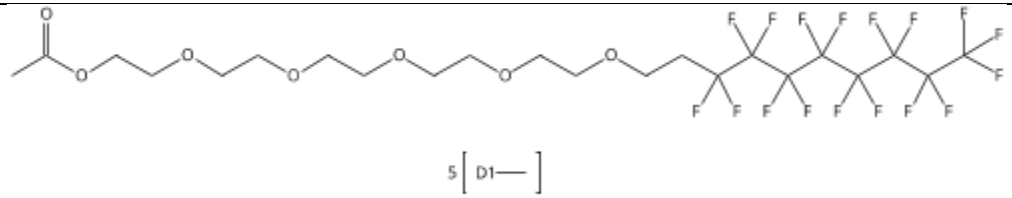
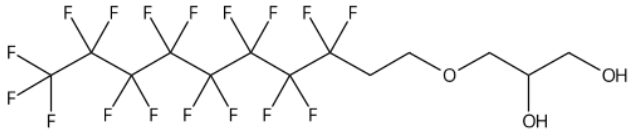
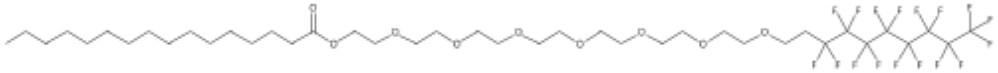
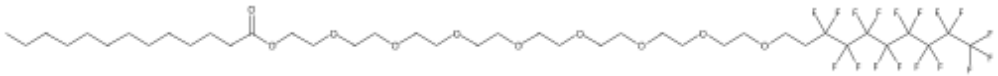
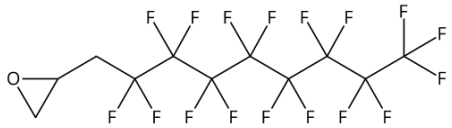
88271-22-1	
88243-09-8	
121500-31-0	
67549-47-7	
67535-33-5	
38565-53-6	

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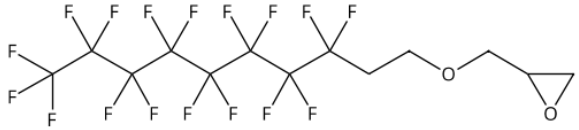
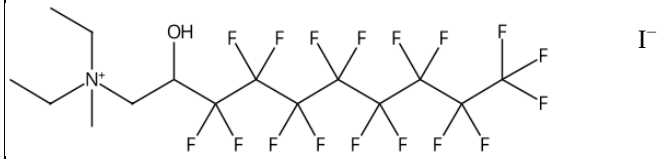
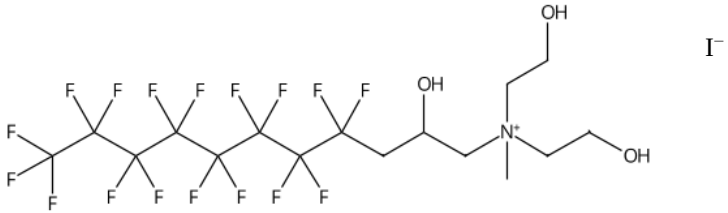
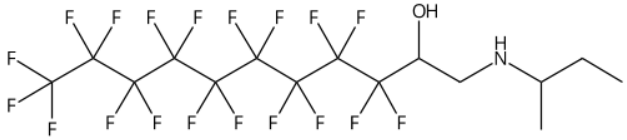
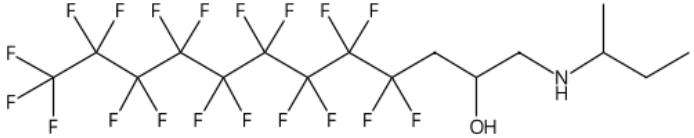
114482-33-6	
99679-40-0	
93776-18-2	
94817-79-5	
94817-80-8	

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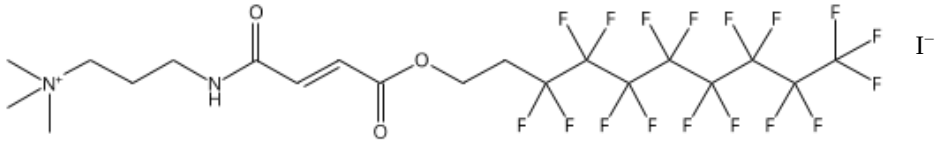
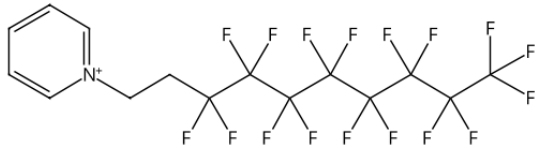
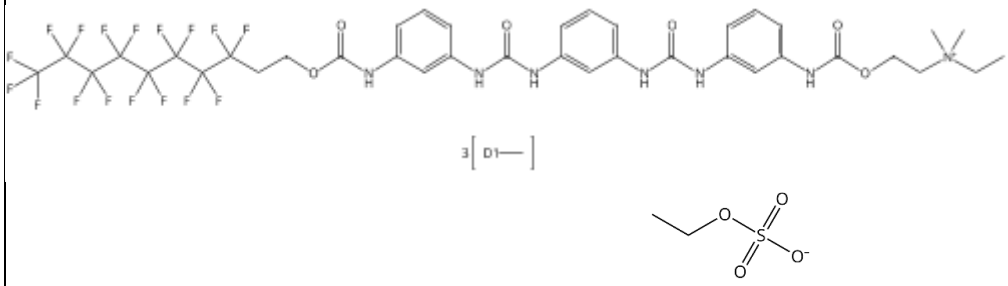
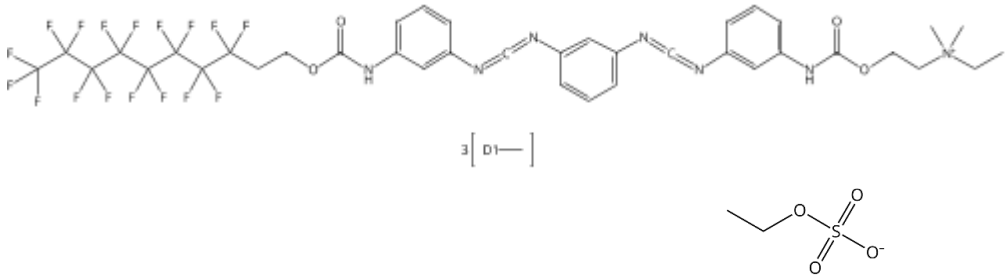
121912-26-3	
25935-14-2	
100155-23-5	
100107-48-0	

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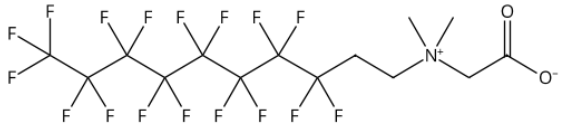
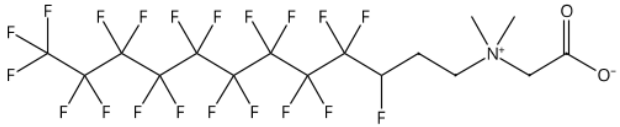
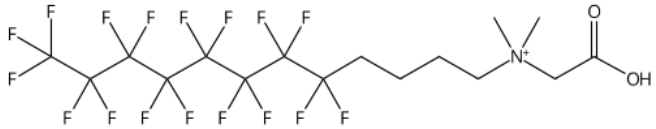
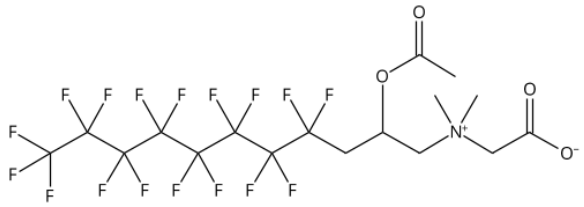
145441-32-3	
171184-04-6	
2089109-30-6	
80234-03-3	

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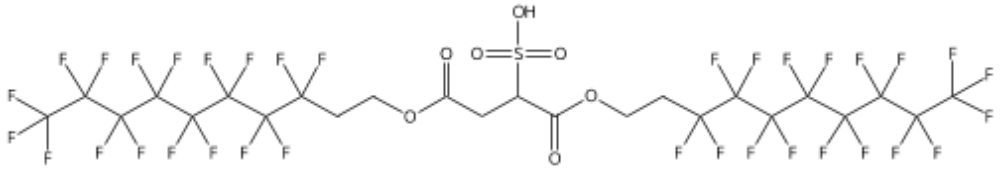
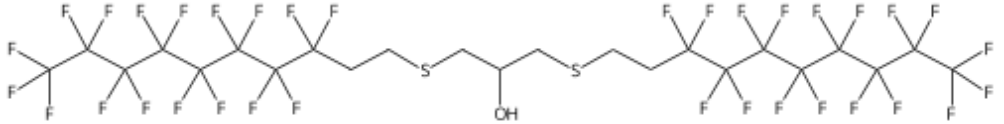
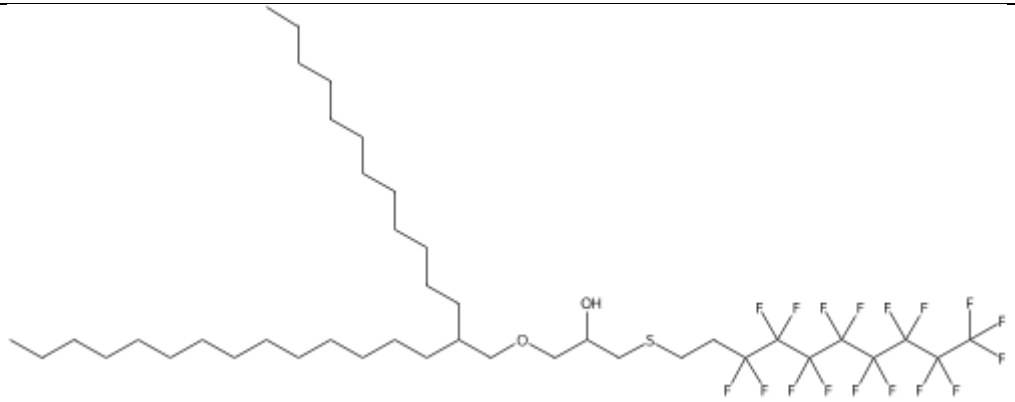
54950-06-0	 Na
160819-47-6	
160819-50-1	

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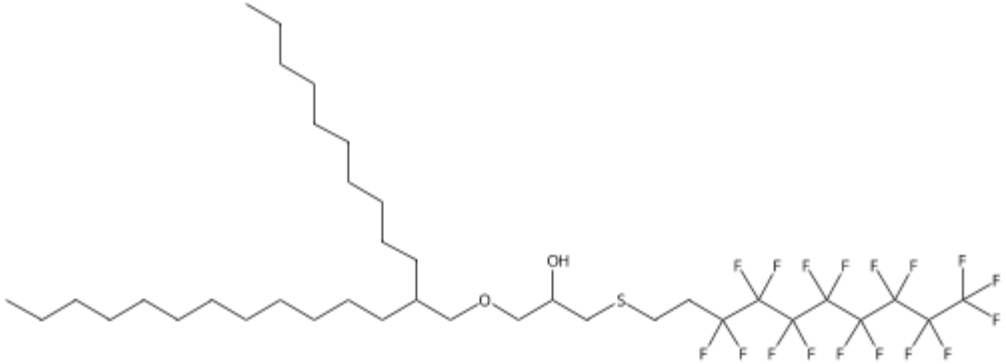
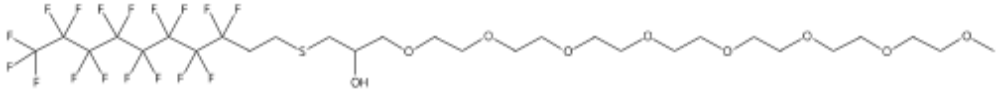
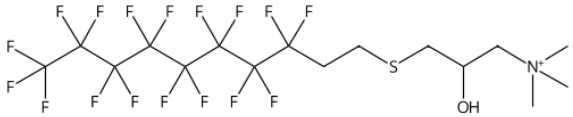
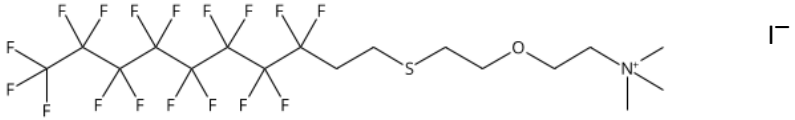
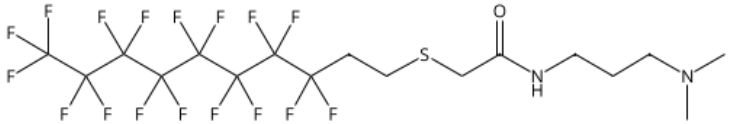
160819-49-8	
121912-28-5	
727351-53-3	
71625-52-0	
1513863-91-6	

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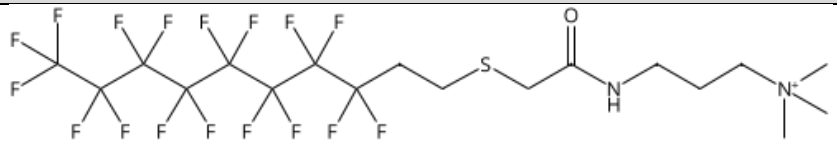
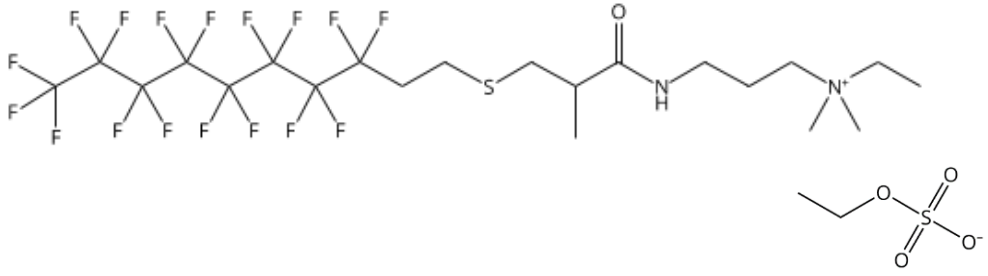
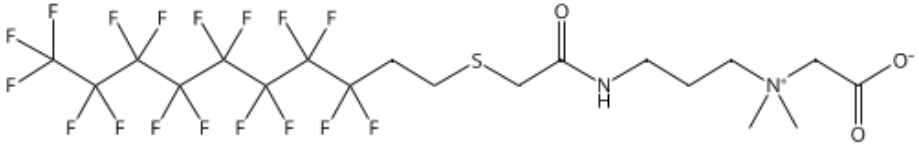
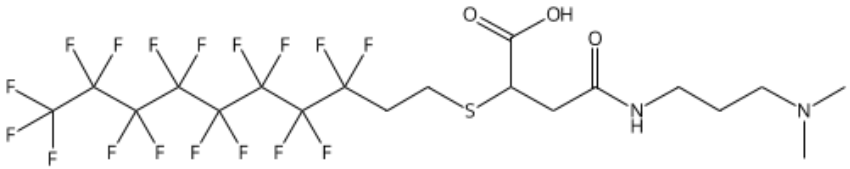
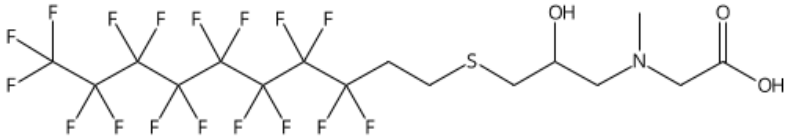
704870-51-9	
67333-62-4	
1513863-96-1	
1383438-89-8	
93128-66-6	

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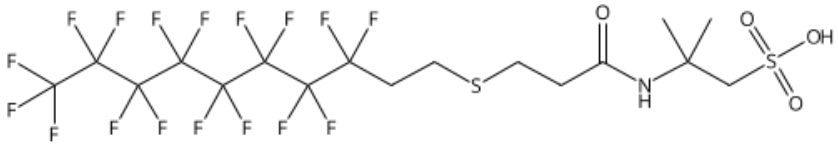
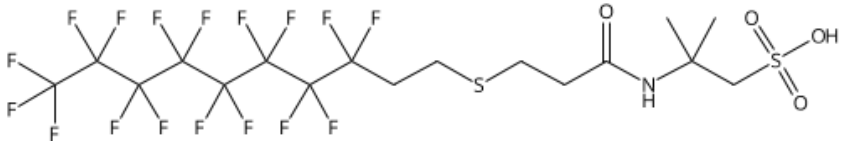
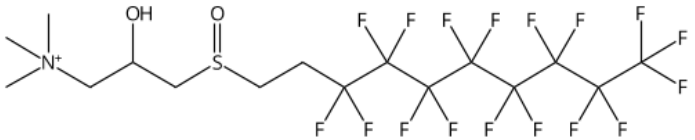
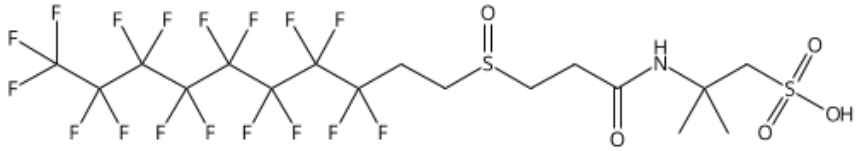
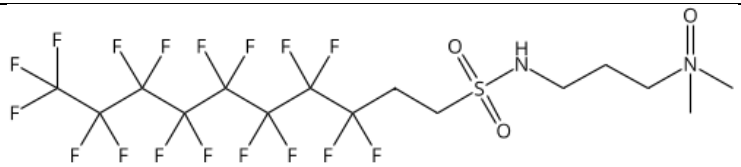
755698-73-8	
62880-96-0	 Na
1513864-19-1	
1513864-12-4	
80475-33-8	

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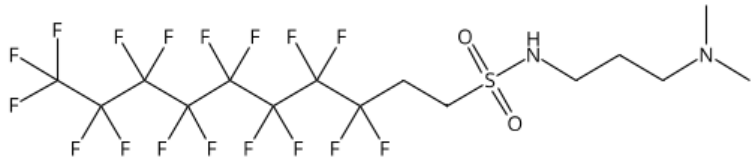
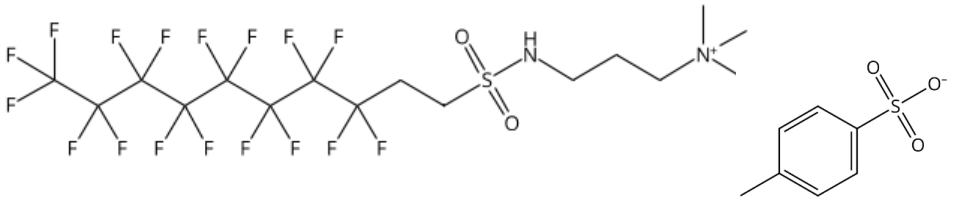
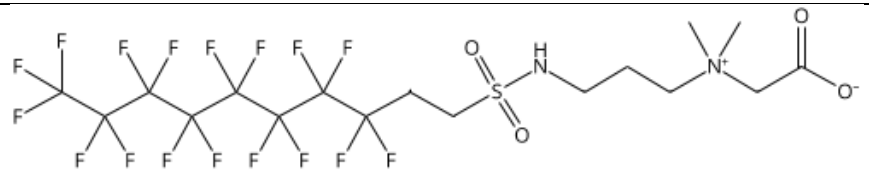
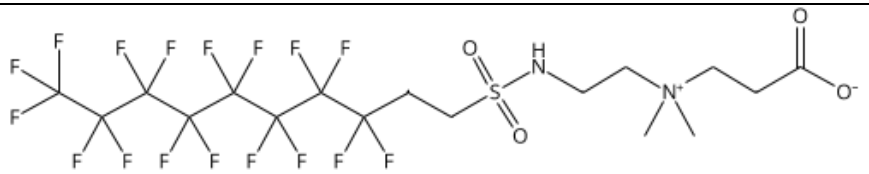
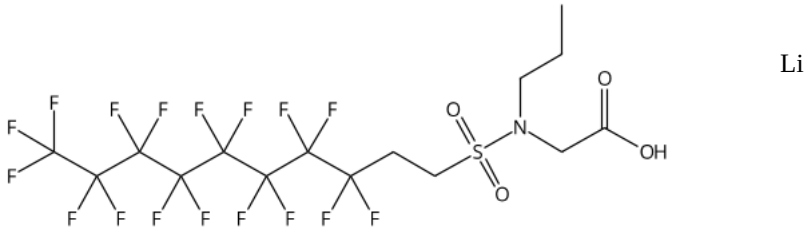
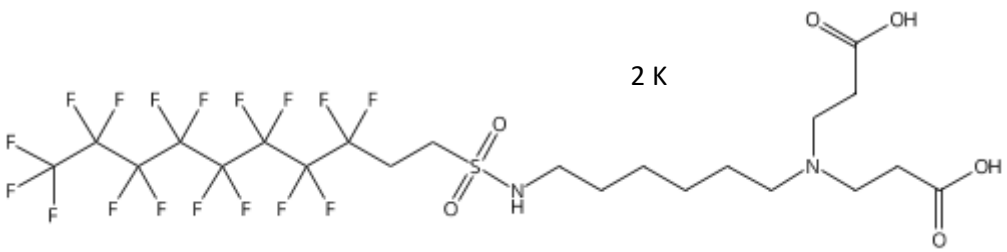
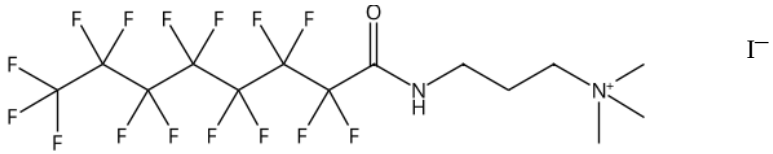
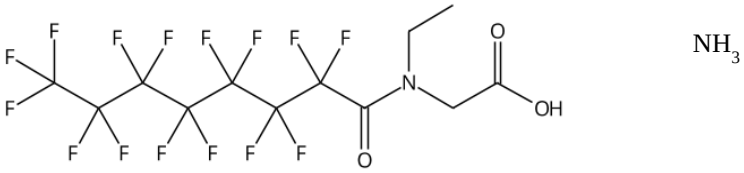
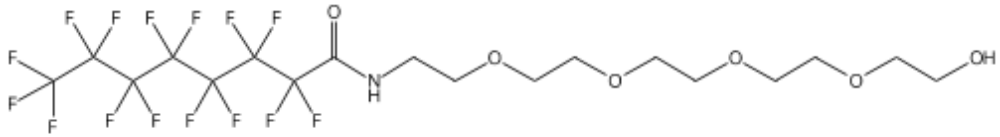
34455-23-7	
438237-77-5	
34455-21-5	
34695-29-9	
441765-18-0	 Li

CAS No.	2D Structural Formula
98900-53-9	
Other substances	
335-90-0	
138473-79-7	
89932-71-8	

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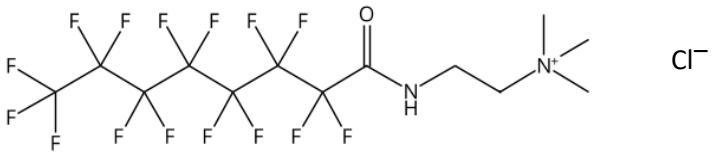
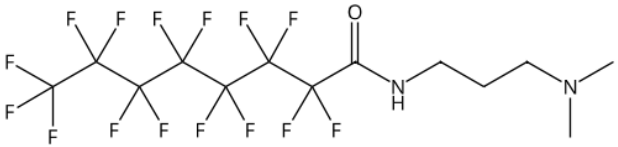
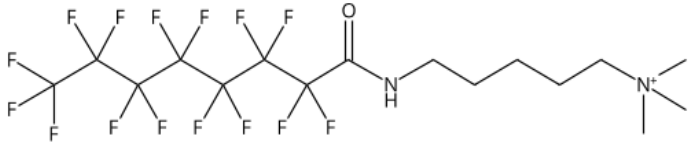
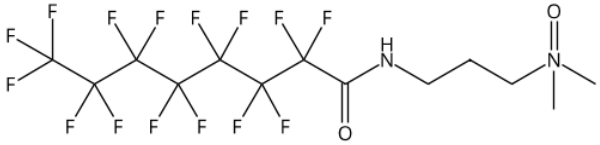
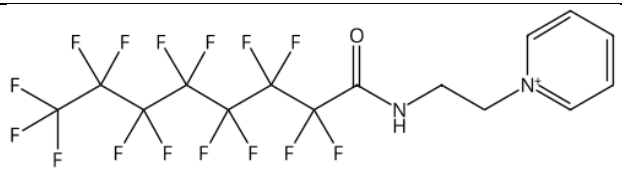
178766-44-4	
376-23-8	
91707-61-8	
30295-53-5	
308-01-0	

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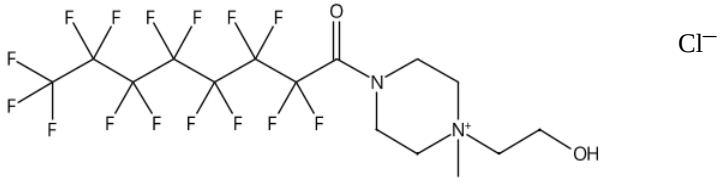
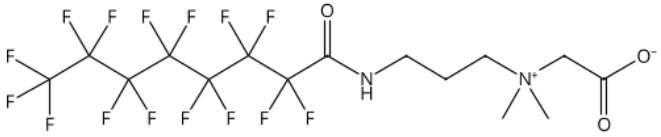
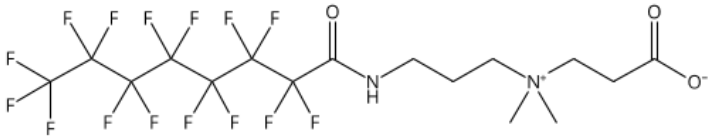
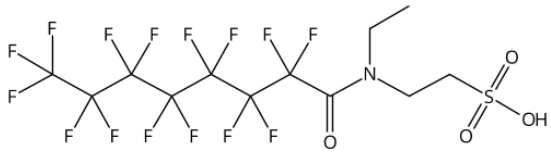
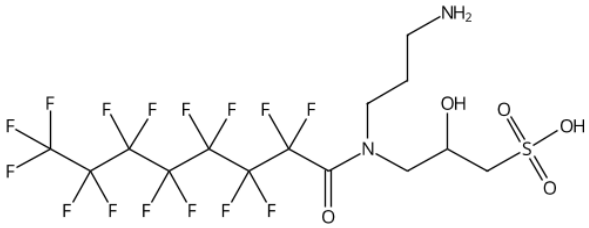
103555-98-2	 Cl⁻
90179-39-8	
5158-52-1	
57670-46-9	 K
98900-76-6	 Na

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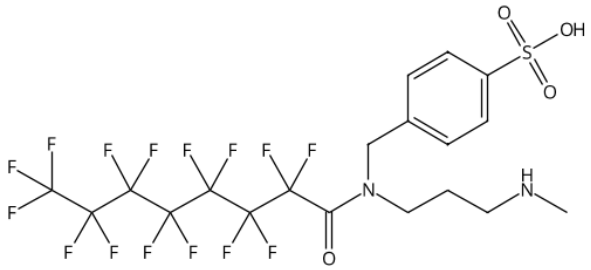
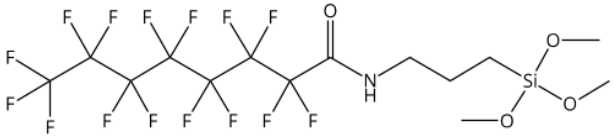
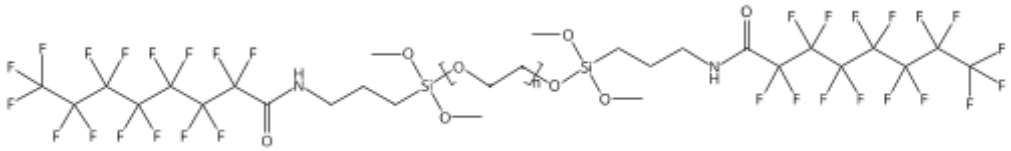
98900-75-5	 Na
98046-76-5	
154380-30-0	

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