

**Rotterdam Convention on the Prior  
Informed Consent Procedure for  
Certain Hazardous Chemicals and  
Pesticides in International Trade**Distr.: General  
23 August 2022  
English only**Chemical Review Committee****Eighteenth meeting**

Rome, 19–23 September 2022

Item 3 of the provisional agenda\*

**Review of the outcomes of the tenth meeting of the  
Conference of the Parties to the Rotterdam Convention  
on the Prior Informed Consent Procedure for Certain  
Hazardous Chemicals and Pesticides in International  
Trade that are relevant to the work of the Committee****Indicative list of substances covered by the listing of perfluorooctanoic  
acid (PFOA), its salts and PFOA-related compounds****Note by the Secretariat**

1. In decision RC-10/7 on listing of perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds in Annex III to the Rotterdam Convention, the the Conference of the Parties at its tenth meeting listed perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds in Annex III to the Rotterdam Convention as follows:

“

<i>Chemical</i>	<i>Relevant CAS number(s)</i>	<i>Category</i>
Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds*	335-67-1	Industrial

\*Note:

The following substances are included in this designation:

- Perfluorooctanoic acid (PFOA) and its salts
- Any related substance (including its salts and polymers) having a linear or branched perfluoroheptyl group with the formula  $C_7F_{15}$ - directly attached to another carbon atom as one of the structural elements
- Any related substance (including its salts and polymers) having a linear or branched perfluorooctyl group with the formula  $C_8F_{17}$ - as one of the structural elements

The following substances are excluded from this designation:

- $C_8F_{17}$ -X, where X = F, Cl, Br
- $C_8F_{17}$ -C(=O)OH,  $C_8F_{17}$ -C(=O)O-X' or  $C_8F_{17}$ -CF<sub>2</sub>-X' (where X' = any group, including salts)
- Perfluorooctane sulfonic acid (PFOS) and its derivatives ( $C_8F_{17}SO_2X$  (X = OH, metal salt (O-M<sup>+</sup>), halide, amide and other derivatives including polymers)).”

\* UNEP/FAO/RC/CRC.18/1.

2. At the same meeting, in decision RC-10/8 on the identification of substances covered by the listing of perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds, the Conference of the Parties requested the Secretariat to prepare, in consultation with the Chemical Review Committee, an indicative list of PFOA, its salts and PFOA-related compounds, make it available on the website of the Convention and update it periodically.

3. 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<sub>7</sub>F<sub>15</sub>) C as one of the structural elements;

The following compounds are not included as PFOA-related compounds:

- (i) C<sub>8</sub>F<sub>17</sub>-X, where X= F, Cl, Br;
- (ii) Fluoropolymers that are covered by CF<sub>3</sub>[CF<sub>2</sub>]<sub>n</sub>-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.”

4. Pursuant to paragraph 8 and 9 of decision SC-9/13 on actions related to perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds adopted by the Conference of the Parties to the Stockholm Convention at its tenth meeting, the Secretariat has prepared and updated, taking into account the information provided by Parties and others and in consultation with the Persistent Organic Pollutants Review Committee, an indicative list of PFOA, its salts and PFOA-related compounds as set out in document UNEP/POPS/POPRC.17/INF/14/Rev.1. The list is available on the website of the Stockholm Convention.<sup>1</sup>

5. Furthermore, in paragraph 6 of decision SC-10/12 on the operation of the Persistent Organic Pollutants Review Committee, the Conference of the Parties to the Stockholm Convention at its tenth meeting invited Parties and observers to submit to the Secretariat any further information regarding the identification of substances covered by the listing of PFOA, its salts and PFOA-related compounds so that the information can be considered when the indicative list of PFOA, its salts and PFOA-related compounds is further updated pursuant to paragraph 9 of decision SC-9/13.

6. On the basis of information contained in document UNEP/POPS/POPRC.17/INF/14/Rev.1, the following draft indicative lists have been prepared as set out in the annex to the present note:

(a) [Table 1](#): Draft indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds;

(b) [Table 2](#): Draft 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;

7. The present note, including its annex, has not been formally edited.

<sup>1</sup> <http://chm.pops.int/TheConvention/ThePOPs/AllPOPs/tabid/2509/Default.aspx>.

## Annex

### Draft indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds<sup>2</sup>

**Table 1: Draft indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds**

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-heptafluoro-1-octanesulfonamide, CAS No. 4151-50-2), as it is covered by the listing of “perfluorooctane sulfonic acid, perfluorooctane sulfonates, perfluorooctane sulfonamides and perfluorooctane sulfonyls...” in Annex III to the Rotterdam 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 may wish to provide information on use of PFOA, its salts and PFOA-related compounds ([brs@un.org](mailto:brs@un.org)) or consult information available in substance inventories such as the OECD Global Portal to Information on Chemical Substances ([eChemPortal](http://echemportal.oecd.org)).

#### 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 the following:
  - Any related substance (including its salts and polymers) having a linear or branched perfluoroheptyl group with the formula C<sub>7</sub>F<sub>15</sub>- directly attached to another carbon atom as one of the structural elements;
  - Any related substance (including its salts and polymers) having a linear or branched perfluorooctyl group with the formula C<sub>8</sub>F<sub>17</sub>- as one of the structural elements
- e. 8:2 fluorotelomer compounds;
- f. References on transformation to PFOA are provided for those precursors that do not fall under the descriptions in columns (a) or (b), i.e., have the column ‘Other’ ticked. 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 ≥ 8);
- g. ‘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 Rotterdam Convention.<sup>3</sup>

<sup>2</sup> The indicative list is not an exhaustive list.

<sup>3</sup> <http://www.pic.int/crc18>. Please see “Chemical structures of PFOA, its salts and PFOA-related compounds”, United States of America, 2021.

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
PFOA										
<a href="#">335-67-1</a>	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										
<a href="#">90480-55-0</a>		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) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
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						

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
1144512-36-6		Hexanoic acid, 2,2,3,3,4,5,6,6,6-nonafluoro-4,5-bis(trifluoromethyl)-		x						
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						
<a href="#">15166-06-0</a>		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)										
<a href="#">90480-56-1</a>	APFO	Octanoic acid, pentadecafluoro-, branched, ammonium salt			x					
<a href="#">3825-26-1</a>	APFO	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt (1:1)			x					
<a href="#">335-95-5</a>	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					
<a href="#">2395-00-8</a>	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 <sup>+</sup> C <sub>7</sub> F <sub>15</sub> COO <sup>-</sup>		x					
<a href="#">335-93-3</a>		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, silver(1+) salt (1:1)			x					
<a href="#">68141-02-6</a>		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) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
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-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										
<a href="#">68333-92-6</a>		Fatty acids, C <sub>7-13</sub> , perfluoro						x	7	
69278-80-4		Ethylamine salts of C <sub>7</sub> -C <sub>13</sub> perfluorinated fatty acids						x	7	
<a href="#">91032-01-8</a>		Fatty acids, C <sub>7-19</sub> , perfluoro						x	7	
<a href="#">72968-38-8</a>		Fatty acids, C <sub>7-13</sub> , perfluoro, ammonium salts						x	7	
<a href="#">72623-77-9</a>		Fatty acids, C <sub>6-18</sub> , perfluoro, ammonium salts	contains NH <sub>4</sub> <sup>+</sup> C <sub>7</sub> F <sub>15</sub> COO <sup>-</sup>					x	7	
PFOA esters and anhydrides										
<a href="#">376-27-2</a>		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, methyl ester						x	7	
<a href="#">3108-24-5</a>		Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ethyl ester						x	7	

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
<a href="#">33496-48-9</a>		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)										
<a href="#">68412-69-1</a>		Phosphinic acid, bis(perfluoro-C <sub>6-12</sub> -alkyl) derivs.						x		
<a href="#">93062-53-4</a>		Phosphinic acid, bis(perfluoro-C <sub>6-12</sub> -alkyl) derivs., aluminum salts						x		
40143-79-1	C <sub>8</sub> /C <sub>8</sub> -PFPIA	Bis(perfluorooctyl)phosphinic acid						x		
610800-34-5	C <sub>6</sub> /C <sub>8</sub> -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)										
<a href="#">335-66-0</a>		Octanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-						x	7	
<a href="#">507-63-1</a>	PFOI	Perfluorooctyl iodide						x	7	
<a href="#">90622-71-2</a>		Alkyl iodides, C <sub>6-18</sub> , perfluoro						x		
Fluorotelomer iodides (FTIs)										
<a href="#">2043-53-0</a>	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	
<a href="#">68188-12-5</a>	FTIs	Alkyl iodides, C <sub>4-20</sub> , γ-ω-perfluoro						x		
<a href="#">68390-33-0</a>	FTIs	Alkyl iodides, C <sub>10-12</sub> , γ-ω-perfluoro						x		
Fluorotelomer olefins (FTOs)										
<a href="#">21652-58-4</a>	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	
Fluorotelomer alcohols (FTOHs)										
<a href="#">678-39-7</a>	8:2 FTOH	1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OH				x		7	



				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
<b>Fluorotelomer saturated and non-saturated acids (FTCAs and FTUCAs)</b>										
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	
<a href="#">27854-31-5</a>	8:2 FTCA	Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-					x			
<b>Fluorotelomer phosphate esters (PAPs)</b>										
<a href="#">54009-73-3</a>		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)-, 1-(dihydrogen phosphate)	(F <sub>3</sub> C) <sub>2</sub> CFC <sub>6</sub> F <sub>12</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OP(=O)(O H) <sub>2</sub>					x		
<a href="#">63295-27-2</a>		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 <sub>3</sub> C) <sub>2</sub> CFC <sub>8</sub> F <sub>16</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OP(=O)(O H) <sub>2</sub>					x		
<a href="#">63295-28-3</a>		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-tetracosafuoro-14-(trifluoromethyl)-, 1-(dihydrogen phosphate)	(F <sub>3</sub> C) <sub>2</sub> CFC <sub>10</sub> F <sub>20</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OP(=O)(O H) <sub>2</sub>					x		
<a href="#">63295-29-4</a>		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-octacosafuoro-16-(trifluoromethyl)-, 1-(dihydrogen phosphate)	(F <sub>3</sub> C) <sub>2</sub> CFC <sub>12</sub> F <sub>24</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OP(=O)(O H) <sub>2</sub>					x		
<a href="#">63295-18-1</a>		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt	2 NH <sub>4</sub> <sup>+</sup> (F <sub>3</sub> C) <sub>2</sub> CFC <sub>6</sub> F <sub>12</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OPO <sub>3</sub> <sup>2-</sup>					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-hexadecafluoro-10-(trifluoromethyl)-, 1-(dihydrogen phosphate), compd. with 2,2'-iminobis[ethanol] (1:2)	2 NH <sub>2</sub> <sup>+</sup> (CH <sub>2</sub> CH <sub>2</sub> OH) <sub>2</sub> (F <sub>3</sub> C) <sub>2</sub> CFC <sub>6</sub> F <sub>12</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OPO <sub>3</sub> <sup>2-</sup>					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 <sub>4</sub> <sup>+</sup> (F <sub>3</sub> C) <sub>2</sub> CFC <sub>6</sub> F <sub>12</sub> CH <sub>2</sub> CH(CH <sub>3</sub> )OPO <sub>3</sub> <sup>2-</sup>					x	3, 4	x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
63295-24-9		Acetic acid, 2- [[3,3,4,4,5,5,6,6,7,7,8,8,9,10,10, 10-hexadecafluoro-1-[(phosphonooxy)methyl]-9-(trifluoromethyl) decyl]oxy]-, ammonium salt (1:2)	2 NH <sub>4</sub> <sup>+</sup> (F <sub>3</sub> C) <sub>2</sub> CFC <sub>6</sub> F <sub>12</sub> CH <sub>2</sub> CH(OCH <sub>2</sub> COOH) CH <sub>2</sub> OPO <sub>3</sub> <sup>2-</sup>					x	3, 4	x
63295-22-7		1-Undecanol, 2-chloro- 4,4,5,5,6,6,7,7,8,8,9,10, 11,11,11-hexadecafluoro-10-(trifluoromethyl)-, dihydrogen phosphate	(F <sub>3</sub> C) <sub>2</sub> CFC <sub>6</sub> F <sub>12</sub> CH <sub>2</sub> CH(Cl)CH <sub>2</sub> OP(=O)(OH) <sub>2</sub>					x	3, 4	x
<a href="#">94158-70-0</a>		1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,10,10,11,11,12,12,13,13,13-heneicosafuoro-, 1-(dihydrogen phosphate)						x		
<a href="#">57678-03-2</a>	8:2 monoPA P	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	
<a href="#">678-41-1</a>	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)								
<a href="#">93857-44-4</a>		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 <sub>4</sub> <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OPO <sub>3</sub> <sup>2-</sup>				x		7	
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 <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH(CH <sub>3</sub> )OPO <sub>3</sub> <sup>2-</sup>					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 <sub>2</sub> CH <sub>2</sub> OH) <sub>3</sub> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OP(=O)(OH)OP(=O)(OH) <sub>2</sub>				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 <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OH C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OP(=O)(OH)OP(=O)(OH) <sub>2</sub>				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-heneicosafuoro 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 <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub> )(OCH <sub>2</sub> CH <sub>2</sub> C <sub>10</sub> F <sub>21</sub> )				x			x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
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-pentacosafuorotetradecyl) ester	(O)P(OH)(OCH <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub> )(OCH <sub>2</sub> CH <sub>2</sub> C <sub>12</sub> F <sub>25</sub> )				x			↑
<a href="#">93776-20-6</a>	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 <sub>4</sub> <sup>+</sup> OP(O <sup>-</sup> )(OCH <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub> ) <sub>2</sub>				x			x
2343-53-5		1-Nonadecanol, 12,12,13,13,14,14,15,15,16,16,17,17, 18,18,19,19-heptadecafluoro-, dihydrogen phosphate	OP(OH)[O(CH <sub>2</sub> ) <sub>11</sub> C <sub>8</sub> F <sub>17</sub> ] <sub>2</sub>				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 <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> F <sub>13</sub> ) <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub>				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 <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub> ) <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> F <sub>13</sub>				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-heneicosafuorododecyl 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 <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> F <sub>13</sub> )(OCH <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub> )OCH <sub>2</sub> CH <sub>2</sub> C <sub>10</sub> F <sub>21</sub>				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 <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub> ) <sub>3</sub>				x			↑
441765-20-4		1-Decanesulfonamide, 3,3,4,4,5,5,6,6,7,7,8,8,9, 9,10,10,10-heptadecafluoro- <i>N</i> -[3-(phosphonoxy)propyl]- <i>N</i> -propyl-, sodium salt (1:2)	2 Na <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> N(C <sub>3</sub> H <sub>7</sub> )CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OPO <sub>3</sub> <sup>2-</sup>				x			x
Fluorotelomer acrylates and methacrylates (FTACs and FTMACs)										
<a href="#">27905-45-9</a>	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	
<a href="#">1996-88-9</a>		8:2 Fluorotelomer methacrylate					x		7	

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
	8:2 FTMAC	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester								
<a href="#">85631-54-5</a>	FTACs	2-Propenoic acid, $\gamma$ - $\omega$ -perfluoro-C8-14-alkyl esters					x	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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH(CH <sub>2</sub> OH)OC(O)CH=CH <sub>2</sub>				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OC(O)CH=CH <sub>2</sub>				x			x
Other fluorotelomer-based non-polymers										
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			
<a href="#">101947-16-4</a>		Perfluorooctylethyltriethoxysilane	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> Si(OCH <sub>2</sub> CH <sub>3</sub> ) <sub>3</sub>				x			↓
<a href="#">78560-44-8</a>		Perfluorooctylethyltrichlorosilane					x			
<a href="#">83048-65-1</a>		Perfluorooctylethyltrimethoxysilane	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> Si(OCH <sub>3</sub> ) <sub>3</sub>				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> Si[OCH(CH <sub>3</sub> ) <sub>2</sub> ] <sub>3</sub>				x			x
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 <sub>2</sub> CH <sub>2</sub> SC <sub>8</sub> H <sub>17</sub> ) <sub>4</sub>				x			x
<a href="#">68187-42-8</a>		Propanamide, 3-[( $\gamma$ - $\omega$ -perfluoro-C <sub>4-10</sub> -alkyl)thio] derivatives					x			
<a href="#">70969-47-0</a>		Thiols, C <sub>8-20</sub> , $\gamma$ - $\omega$ -perfluoro, telomers with acrylamide				x				

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
<a href="#">95370-51-7</a>		Carbamic acid, [2-(sulphothio)ethyl]-, C-(γ-ω-perfluoro-C <sub>6-9</sub> -alkyl) esters, monosodium salts						x	7	
<a href="#">148240-85-1</a>		1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C <sub>4-10</sub> -alkyl)thio]methyl] derivatives, phosphates, ammonium salts					x		7	
<a href="#">148240-87-3</a>		1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C <sub>6-12</sub> -alkyl)thio]methyl] derivatives, phosphates, ammonium salts					x		7	
<a href="#">148240-89-5</a>		1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C <sub>10-20</sub> -alkyl)thio]methyl] derivs., phosphates, ammonium salts					x	x		
<a href="#">183146-60-3</a>		Oxirane, methyl-, polymer with oxirane, mono[2-hydroxy-3-[(γ-ω-perfluoro-C <sub>8-20</sub> -alkyl)thio]propyl] ethers				x				
<a href="#">71608-61-2</a>		Pentanoic acid, 4,4-bis[(γ-ω-perfluoro-C <sub>8-20</sub> -alkyl)thio]derivs., compds. with diethanolamine					x	x	7	
<a href="#">94200-45-0</a>		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptafluoro-, 1-(dihydrogen phosphate), ammonium salt (1:2)					x		7	
<a href="#">77117-48-7</a>	F <sub>8</sub> H <sub>2</sub>	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>2</sub> H				x			x
1835250-28-6	F <sub>8</sub> H <sub>3</sub>	Undecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>3</sub> H				x			x
182130-12-7	F <sub>8</sub> H <sub>4</sub>	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>4</sub> H				x			↑
1835250-47-9	F <sub>8</sub> H <sub>5</sub>	Tridecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>5</sub> H				x			↑
182130-14-9	F <sub>8</sub> H <sub>6</sub>	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>6</sub> H				x			↑
182130-15-0	F <sub>8</sub> H <sub>7</sub>	Pentadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>7</sub> H				x			↑
6145-05-7	F <sub>8</sub> H <sub>8</sub>	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>8</sub> H				x			↑
931415-52-0	F <sub>8</sub> H <sub>9</sub>	Heptadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>9</sub> H				x			↑
138472-76-1	F <sub>8</sub> H <sub>10</sub>	Octadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>10</sub> H				x			↑

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
117146-18-6	F <sub>8</sub> H <sub>16</sub>	Tetracosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>16</sub> H				x			↑
133310-73-3	F <sub>8</sub> H <sub>18</sub>	Hexacosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>18</sub> H				x			↑
137338-39-7	F <sub>8</sub> H <sub>20</sub>	Octacosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>20</sub> H				x			↑
137338-40-0	F <sub>8</sub> H <sub>22</sub>	Triacontane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>22</sub> H				x			↑
137338-41-1	F <sub>8</sub> H <sub>24</sub>	Dotriacontane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	F(CF <sub>2</sub> ) <sub>8</sub> (CH <sub>2</sub> ) <sub>24</sub> 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-tetratriacontafluoro-	C <sub>8</sub> F <sub>17</sub> C <sub>4</sub> H <sub>8</sub> C <sub>8</sub> F <sub>17</sub>				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-tetratriacontafluoro-	C <sub>8</sub> F <sub>17</sub> C <sub>8</sub> H <sub>16</sub> C <sub>8</sub> F <sub>17</sub>				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 <sub>8</sub> F <sub>17</sub> CH=CH(CH <sub>2</sub> ) <sub>14</sub> H					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-heptadecafluoro-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> OH					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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CHO				x		7	
63967-40-8	PFNAL	Nonanal, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-heptadecafluoro-	C <sub>8</sub> F <sub>17</sub> 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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> OH				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> OH (2 H are replaced by 2 CH <sub>3</sub> )				x			
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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>3</sub> OH (2 H are replaced by 2 CH <sub>3</sub> )				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>4</sub> OH				x			x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>4</sub> OH (2 H are replaced by 2 CH <sub>3</sub> )				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>4</sub> OH (4 H are replaced by 4 CH <sub>3</sub> )				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>5</sub> OH (5 H are replaced by 5 CH <sub>3</sub> )				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>6</sub> OH				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>6</sub> OH (5 H are replaced by 5 CH <sub>3</sub> )				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>6</sub> OH (6 H are replaced by 6 CH <sub>3</sub> )				x			
88243-10-1		3,6,9,12,15,18,21-Heptaohentriacontan-1-ol, 24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,31-heptadecafluoropentamethyl-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>7</sub> OH (5 H are replaced by 5 CH <sub>3</sub> )				x			
88247-40-9		3,6,9,12,15,18,21,24-Octaoxatetriacontan-1-ol, 27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,34-heptadecafluoro-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>8</sub> OH				x			
88243-17-8		3,6,9,12,15,18,21,24-Octaoxatetriacontan-1-ol, 27,27,28,28,29,29,30,30,31,31,32,32,33,33,34,34,34-heptadecafluorooctamethyl-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>8</sub> OH (8 H are replaced by 8 CH <sub>3</sub> )				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>5</sub> OC(=O)CH <sub>3</sub> (5 H are replaced by 5 CH <sub>3</sub> )				x			x
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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> CH(OH)CH <sub>2</sub> OH				x			x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
67549-47-7		11,14,17,20,23,26,29,32-Octaoxaotatetracontan-33-one, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-	C <sub>8</sub> F <sub>17</sub> (CH <sub>2</sub> CH <sub>2</sub> O) <sub>8</sub> C(O)C <sub>15</sub> H <sub>31</sub>				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 <sub>8</sub> F <sub>17</sub> (CH <sub>2</sub> CH <sub>2</sub> O) <sub>9</sub> C(O)C <sub>12</sub> H <sub>25</sub>				x			x
<a href="#">38565-53-6</a>		Oxirane, 2-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononyl)-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> C <sub>2</sub> OH <sub>3</sub>				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> C <sub>2</sub> OH <sub>3</sub>				x			x
99679-40-0		1-Decanaminium, <i>N,N</i> -diethyl-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-2-hydroxy- <i>N</i> -methyl-, iodide (1:1)	Γ C <sub>8</sub> F <sub>17</sub> CH(OH)CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> )(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub>				x			x
<a href="#">93776-18-2</a>		1-Undecanaminium, 4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,11-heptadecafluoro-2-hydroxy- <i>N,N</i> -bis(2-hydroxyethyl)- <i>N</i> -methyl-, iodide (1:1)	Γ C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> )(CH <sub>2</sub> CH <sub>2</sub> OH) <sub>2</sub>				x			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]- <i>N,N,N</i> -trimethyl-, iodide (1:1)	Γ C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OC(O)CHCHC(O)NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>3</sub>				x			x
<a href="#">25935-14-2</a>		Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, iodide (1:1)	Γ C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> C <sub>5</sub> H <sub>5</sub>				x			x
100155-23-5		Ethanaminium, <i>N</i> -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]- <i>N,N</i> -dimethyl-, ethyl sulfate	C <sub>2</sub> H <sub>5</sub> OSO <sub>3</sub> <sup>-</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> O[C(O)NHC <sub>6</sub> H <sub>4</sub> NH] <sub>3</sub> C(O)OCH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> (3 H are replaced by 3 CH <sub>3</sub> )				x			x
-		1-Decanamine, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- <i>N,N</i> -dimethyl-, <i>N</i> -oxide	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> N(CH <sub>3</sub> ) <sub>2</sub> O				x			



				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
100107-48-0		Ethanaminium, <i>N</i> -ethyl-2-[[[3-[[[3-[[[3-[[[3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl]oxy]carbonyl]amino]methylphenyl]carbonimidoyl]amino]methylphenyl]carbonimidoyl]amino]methylphenyl]amino]carbonyl]oxy]- <i>N,N</i> -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, <i>N</i> -(carboxymethyl)-3,3,4,4,5,5, 6,6,7,7,8,8,9,9,10,10,10-heptafluoro- <i>N,N</i> -dimethyl-	$C_8F_{17}CH_2CH_2N^+(CH_3)_2CH_2COOH$				x			↓
145441-32-3		1-Decanaminium, <i>N</i> -(carboxymethyl)-3,3,4,4,5,5, 6,6,7,7,8,8,9,9,10,10,10-heptafluoro- <i>N,N</i> -dimethyl-, inner salt	$C_8F_{17}CH_2CH_2N^+(CH_3)_2CH_2COO^-$				x			x
2089109-30-6		1-Dodecanaminium, <i>N</i> -(carboxymethyl)-5,5,6,6, 7,7,8,8,9,9,10,10,11,11,12,12,12-heptafluoro- <i>N,N</i> -dimethyl-	$C_8F_{17}CH_2CH_2CH_2CH_2N^+(CH_3)_2CH_2COOH$				x			x
80234-03-3		1-Undecanaminium, 2-(acetyloxy)- <i>N</i> -(carboxy methyl)-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptafluoro- <i>N,N</i> -dimethyl-, inner salt	$C_8F_{17}CH_2CH(OC(O)CH_3)CH_2N^+(CH_3)_2CH_2COO^-$				x			x
34143-74-3		1-Decanethiol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 10-heptafluoro-	$C_8F_{17}CH_2CH_2SH$				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-heptafluoro-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			
<a href="#">39108-34-4</a>	8:2 FTSA	1-Decanesulfonic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9, 9,10,10,10-heptafluoro-	$C_8F_{17}CH_2CH_2SO_3H$				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-heptafluoro-, 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-heptafluoro-, 1-(hydrogen sulfate), ammonium salt (1:1)	$NH_4^+ C_8F_{17}CH_2CH_2OSO_3^-$				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-heptafluorodecyl) ester, sodium salt (1:1)	$Na^+$ $C_8F_{17}CH_2CH_2OC(O)CH_2CH(SO_3^-)C(O)OCH_2CH_2C_8F_{17}$				x			x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
441765-12-4		Acetic acid, 2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]-, lithium salt (1:1)	Li <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> COO <sup>-</sup>				x			
54207-62-4		Propanoic acid, 3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH <sub>2</sub> COOH				x			
481050-04-8		Propanoic acid, 3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]-, lithium salt (1:1)	Li <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH <sub>2</sub> COO <sup>-</sup>				x			
441765-14-6		Ethanesulfonic acid, 2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]-, lithium salt (1:1)	Li <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH <sub>2</sub> SO <sub>3</sub> <sup>-</sup>				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-heptafluorodecyl)thio]-	HOCH(CH <sub>2</sub> SCH <sub>2</sub> CH <sub>2</sub> C <sub>8</sub> F <sub>17</sub> ) <sub>2</sub>				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-heptafluorodecyl)thio]-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH(OH)CH <sub>2</sub> OCH <sub>2</sub> CH(C <sub>14</sub> H <sub>29</sub> )C <sub>12</sub> H <sub>25</sub>				x			x
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-heptafluorodecyl)thio]-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH(OH)CH <sub>2</sub> OCH <sub>2</sub> CH(C <sub>10</sub> H <sub>21</sub> )C <sub>12</sub> H <sub>25</sub>				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-heptafluoro-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH(OH)(CH <sub>2</sub> OCH <sub>2</sub> ) <sub>8</sub>				x			x
727351-53-3	8:2 FTSHA	1-Propanaminium, 2-hydroxy- <i>N,N,N</i> -trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH(OH)CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>3</sub>				x			x
71940-07-3		1-Propanaminium, 2-hydroxy- <i>N,N,N</i> -trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]-, chloride (1:1)	Cl <sup>-</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH(OH)CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>3</sub>				x			↑
71625-52-0		Ethanaminium, 2-[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]ethoxy]- <i>N,N,N</i> -trimethyl-, iodide (1:1)	I <sup>-</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>3</sub>				x			x
1513863-91-6		Acetamide, <i>N</i> -[3-(dimethylamino)propyl]-2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)thio]-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> C(O)NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N(CH <sub>3</sub> ) <sub>2</sub>				x			x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
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]- <i>N,N,N</i> -trimethyl-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> C(O)NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>3</sub>				x			x
67333-62-4		1-Propanaminium, <i>N</i> -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]- <i>N,N</i> -dimethyl-, ethyl sulfate (1:1)	C <sub>2</sub> H <sub>5</sub> OSO <sub>3</sub> <sup>-</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH(CH <sub>3</sub> )C(O)NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>2</sub> C <sub>2</sub> H <sub>5</sub>				x			x
1513863-96-1	8:2 FTSAB	1-Propanaminium, <i>N</i> -(carboxymethyl)-3-[[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)thio]acetyl] amino]- <i>N,N</i> -dimethyl-, inner salt	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> C(O)NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>2</sub> CH <sub>2</sub> COO <sup>-</sup>				x			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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH(COO <sup>-</sup> )CH <sub>2</sub> C(O)NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> NH <sup>+</sup> (CH <sub>3</sub> ) <sub>2</sub>				x			x
93128-66-6		Glycine, <i>N</i> -[3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 10-heptadecafluorodecyl)thio]-2-hydroxypropyl]- <i>N</i> -methyl-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH(OH)CH <sub>2</sub> N(CH <sub>3</sub> )CH <sub>2</sub> COOH				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH <sub>2</sub> C(O)NHC(CH <sub>3</sub> ) <sub>2</sub> CH <sub>2</sub> SO <sub>3</sub> H				x			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 <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SCH <sub>2</sub> CH <sub>2</sub> C(O)NHC(CH <sub>3</sub> ) <sub>2</sub> CH <sub>2</sub> SO <sub>3</sub> <sup>-</sup>				x			x
1513864-19-1		1-Propanaminium, 2-hydroxy- <i>N,N,N</i> -trimethyl-3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)sulfinyl]-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> S(O)CH <sub>2</sub> CH(OH)CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>3</sub>				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 <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> S(O)CH <sub>2</sub> CH <sub>2</sub> C(O)NHC(CH <sub>3</sub> ) <sub>2</sub> CH <sub>2</sub> SO <sub>3</sub> H				x			x
80475-33-8		1-Decanesulfonamide, <i>N</i> -[3-(dimethyloxido amino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N(=O)(C H <sub>3</sub> ) <sub>2</sub>				x			x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
34455-23-7		1-Decanesulfonamide, <i>N</i> -[3-(dimethylamino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro-	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N(CH <sub>3</sub> ) <sub>2</sub>				x			x
438237-77-5		1-Propanaminium, 3-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)sulfonyl]amino]- <i>N,N,N</i> -trimethyl-, 4-methylbenzene sulfonate (1:1)	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> SO <sub>3</sub> <sup>-</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>3</sub>				x			x
34455-21-5	8:2 FTAB	1-Propanaminium, <i>N</i> -(carboxymethyl)-3-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)sulfonyl]amino]- <i>N,N</i> -dimethyl-, inner salt	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> NHCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>2</sub> CH <sub>2</sub> COO <sup>-</sup>				x			x
34695-29-9		Ethanaminium, <i>N</i> -(2-carboxyethyl)-2-[[[(3,3,4,4, 5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro decyl)sulfonyl]amino]- <i>N,N</i> -dimethyl-, inner salt	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> NHCH <sub>2</sub> CH <sub>2</sub> N <sup>+</sup> (CH <sub>3</sub> ) <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> COO <sup>-</sup>				x			x
441765-18-0		Glycine, <i>N</i> -[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)sulfonyl]- <i>N</i> -propyl-, lithium salt	Li <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> N(C <sub>3</sub> H <sub>7</sub> )CH <sub>2</sub> COO <sup>-</sup>				x			x
98900-53-9		β-Alanine, <i>N</i> -(2-carboxyethyl)- <i>N</i> -[6-[[[(3,3,4,4, 5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro decyl)sulfonyl]amino]hexyl]-, dipotassium salt	2 K <sup>+</sup> C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> SO <sub>2</sub> NHC <sub>6</sub> H <sub>12</sub> N(CH <sub>2</sub> CH <sub>2</sub> COO <sup>-</sup> ) <sub>2</sub>				x			x
<b>Fluorotelomer-based side-chain fluorinated polymers</b>										
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-heneicosafuorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl 2-propenoate, hexadecyl 2-propenoate, <i>N</i> -(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-pentacosafuorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate				x	x	x		
129783-45-5		2-Propenoic acid, 2-methyl-, C <sub>10-16</sub> -alkyl esters, polymers with 2-hydroxyethyl methacrylate, Me methacrylate and γ-ω-perfluoro-C <sub>8-14</sub> -alkyl acrylate				x	x	x		

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
144031-01-6		2-Propenoic acid, dodecyl ester, polymers with Bu (1-oxo-2-propenyl)carbamate and $\gamma$ - $\omega$ -perfluoro-C <sub>8-14</sub> -alkyl acrylate				x	x	x		
116984-14-6		2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12,12-heneicosafuorododecyl 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-nonacosafuorohexadecyl 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-pentacosafuorotetradecyl 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-tritriacontafuorooctadecyl 2-propenoate				x			7	
<a href="#">74049-08-4</a>	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								
<a href="#">65104-45-2</a>		2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12,12-heneicosafuorododecyl 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-pentacosafuorotetradecyl 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		
<a href="#">53515-73-4</a>		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	

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
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-ethenyl naphthalene and 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl 2-propenoate	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH(OH)CH <sub>2</sub> OC(O)CHCH <sub>2</sub> C <sub>12</sub> H <sub>10</sub> CH <sub>2</sub> CHCOOH (formulas of the starting materials, not of the final product)			x	x			
<a href="#">142636-88-2</a>		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-heneicosafuorododecyl 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-pentacosafuorotetradecyl 2-propenoate	C <sub>8</sub> F <sub>17</sub> CH <sub>2</sub> CH <sub>2</sub> OC(O)CHCH <sub>2</sub> C <sub>10</sub> F <sub>21</sub> CH <sub>2</sub> CH <sub>2</sub> OC(O)CHCH <sub>2</sub> C <sub>12</sub> F <sub>25</sub> CH <sub>2</sub> CH <sub>2</sub> OC(O)CHCH <sub>2</sub> C <sub>18</sub> H <sub>37</sub> OC(O)C(CH <sub>3</sub> )CH <sub>2</sub> (formulas of the starting materials, not of the final product)			x	x			
Other substances										
<a href="#">90622-99-4</a>		Amides, C <sub>7-19</sub> , α-ω-perfluoro- <i>N,N</i> -bis(hydroxyethyl)						x	7	
<a href="#">71356-38-2</a>		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		
<a href="#">85681-64-7</a>		2-Propenoic acid, perfluoro-C <sub>8-16</sub> -alkyl esters						x		
125328-29-2		2-Propenoic acid, 2-methyl-, C <sub>10-16</sub> -alkyl esters, polymers with 2-hydroxyethylmethacrylate, Me methacrylate and perfluoro-C <sub>8-14</sub> -alkyl acrylate						x		
325459-92-5		Phosphine, tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)phenyl]-					x		7	
326475-46-1		Palladium, dichlorobis[tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)phenyl]phosphine-κP]-					x		7	

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
<a href="#">39186-68-0</a>		1-Propanaminium, <i>N</i> -(2-carboxyethyl)- <i>N,N</i> -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	
<a href="#">41358-63-8</a>		Octanamide, <i>N</i> -[3-[bis(2-hydroxyethyl)amino]propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-						x	7	
<a href="#">24216-05-5</a>		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, <i>N,N,N</i> -trimethyl-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) amino]-, chloride (1:1)	$\text{Cl}^- \text{C}_7\text{F}_{15}\text{C}(\text{O})\text{NHCH}_2\text{CH}_2\text{CH}_2\text{N}^+(\text{CH}_3)_3$					x	7	
<a href="#">335-90-0</a>		1-Propanaminium, <i>N,N,N</i> -trimethyl-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) amino]-, iodide (1:1)	$\text{I}^- \text{C}_7\text{F}_{15}\text{C}(\text{O})\text{NHCH}_2\text{CH}_2\text{CH}_2\text{N}^+(\text{CH}_3)_3$					x	6	x
<a href="#">85938-56-3</a>		Octanamide, <i>N</i> -(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		
<a href="#">84029-60-7</a>		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, <i>N</i> -ethyl- <i>N</i> -(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)-, ammonium salt	$\text{NH}_4^+ \text{C}_7\text{F}_{15}\text{C}(\text{O})\text{N}(\text{C}_2\text{H}_5)\text{CH}_2\text{COO}^-$					x	6	x
89932-71-8		Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro- <i>N</i> -(14-hydroxy-3,6,9,12-tetraoxatetradec-1-yl)-	$\text{C}_7\text{F}_{15}\text{C}(\text{O})\text{NHCH}_2\text{CH}_2(\text{OCH}_2\text{CH}_2)_4\text{OH}$					x	6	x
178766-44-4		Ethanaminium, <i>N,N,N</i> -trimethyl-2-[(2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-1-oxooctyl)amino]-, chloride (1:1)	$\text{Cl}^- \text{C}_7\text{F}_{15}\text{C}(\text{O})\text{NHCH}_2\text{CH}_2\text{N}^+(\text{CH}_3)_3$					x	6	x
376-23-8		Octanamide, <i>N</i> -[3-(dimethylamino)propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-	$\text{C}_7\text{F}_{15}\text{C}(\text{O})\text{NHCH}_2\text{CH}_2\text{CH}_2\text{N}(\text{CH}_3)_2$					x		x

				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
91707-61-8		1-Pentanaminium, <i>N,N,N</i> -trimethyl-5-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, iodide (1:1)	$\Gamma^-$ $C_7F_{15}C(O)NHCH_2CH_2CH_2CH_2CH_2N^+(CH_3)_3$					x	6	x
30295-53-5		Octanamide, <i>N</i> -[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, <i>N</i> -(carboxymethyl)- <i>N,N</i> -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, <i>N</i> -(2-carboxyethyl)-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]- <i>N,N</i> -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- <i>N</i> -[3-(trimethoxysilyl)propyl]-	$C_7F_{15}C(O)NHCH_2CH_2CH_2Si(OCH_3)_3$					x	6	x



				(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>				
				PFOA	PFOA salts	PFOA-related compounds				
CAS No. <sup>a</sup>	Acronym	Designation	Condensed structural formula			(a)	(b) <sup>e</sup>	Other	Ref <sup>f</sup>	2D structure available in Table 3 <sup>g</sup>
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]-	$C_7F_{15}C(O)NHCH_2CH_2CH_2Si(OCH_3)_2(OCH_2CH_2)_5OSi(OCH_3)_2CH_2CH_2CH_2NHC(O)C_7F_1$					x	6	x

**Table 2: Draft indicative list of substances not covered by the listing of PFOA, its salts and PFOA-related compounds**

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:**

- Hyperlinks to the CAS Common Chemistry database are provided for those CAS numbers that have entries in that database;
- C<sub>8</sub>F<sub>17</sub>-X, where X= F, Cl, Br;
- Fluoropolymers that are covered by CF<sub>3</sub>[CF<sub>2</sub>]<sub>n</sub>-R', where R'=any group, n>16;
- Perfluoroalkyl carboxylic and phosphonic acids (including their salts, esters, halides and anhydrides) with ≥8 perfluorinated carbons;
- Perfluoroalkane sulfonic acids (including their salts, esters, halides and anhydrides) with ≥9 perfluorinated carbons;
- “Perfluorooctane sulfonic acid, perfluorooctane sulfonates, perfluorooctane sulfonamides and perfluorooctane sulfonyls...”, as listed in Annex III to the Rotterdam Convention.

			Out of scope					
CAS No. <sup>a</sup>	Acronym	Designation	(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
PFOA								
Fluorotelomer alcohols								
<a href="#">647-42-7</a>	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)								
<a href="#">68412-68-0</a>		Phosphonic acid, perfluoro-C <sub>6-12</sub> -alkyl derivs.			x			
Polyfluoroalkyl carboxylic acids								
<a href="#">1765-48-6</a>		Undecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-eicosafluoro-						x
<a href="#">307-71-1</a>		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
Perfluoroalkylcarboxylic acids other than PFOA, their isomers, and salts								
<a href="#">375-22-4</a>	PFBA	Perfluorobutanoic acid						x
<a href="#">2706-90-3</a>	PFPeA	Perfluoropentanoic acid						x

CAS No. <sup>a</sup>	Acronym	Designation	Out of scope					
			(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
<a href="#">307-24-4</a>	PFHxA	Perfluorohexanoic acid						x
<a href="#">375-85-9</a>	PFHpA	Perfluoroheptanoic acid						x
<a href="#">375-95-1</a>	C <sub>9</sub> -PFCA or PFNA	Perfluorononan-1-oic acid			x			
<a href="#">335-76-2</a>	C <sub>10</sub> -PFCA or PFDA	Perfluorodecanoic acid			x			
<a href="#">2058-94-8</a>	C <sub>11</sub> -PFCA or PFUnA	Perfluoroundecanoic acid			x			
<a href="#">307-55-1</a>	C <sub>12</sub> -PFCA or PFDoA	Perfluorododecanoic acid			x			
<a href="#">72629-94-8</a>	C <sub>13</sub> -PFCA or PFTriA	Perfluorotridecanoic acid			x			
<a href="#">376-06-7</a>	C <sub>14</sub> -PFCA or PFTeA	Perfluorotetradecanoic acid			x			
141074-63-7	C <sub>15</sub> -PFCA	Perfluoropentadecanoic acid			x			
<a href="#">67905-19-5</a>	C <sub>16</sub> -PFCA	Perfluorohexadecanoic acid			x			
57475-95-3	C <sub>17</sub> -PFCA	Perfluoroheptadecanoic acid			x			
<a href="#">16517-11-6</a>	C <sub>18</sub> -PFCA	Perfluorooctadecanoic acid			x			
133921-38-7	C <sub>19</sub> -PFCA	Perfluorononadecanoic acid			x			
<a href="#">68310-12-3</a>	C <sub>20</sub> -PFCA	Perfluoroeicosanoic acid			x			
<a href="#">15811-52-6</a>		Dodecanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-docosafuoro-11-(trifluoromethyl)-						x
<a href="#">16486-96-7</a>		Dodecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-docosafuoro-11-(trifluoromethyl)-			x			
<a href="#">18024-09-4</a>		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-hexacosafuoro-13-(trifluoromethyl)-			x			
<a href="#">68015-87-2</a>		Dodecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-docosafuoro-11-(trifluoromethyl)-, compd. With ethanamine (1:1)			x			
<a href="#">68025-62-7</a>		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-hexacosafuoro-13-(trifluoromethyl)-						x
<a href="#">3108-42-7</a>		Ammonium nonadecafluorodecanoate			x			

CAS No. <sup>a</sup>	Acronym	Designation	Out of scope					
			(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
<a href="#">3658-63-7</a>		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			
<a href="#">3793-74-6</a>		Ammonium tricosafuorododecanoate			x			
<b>Perfluoroalkanesulfonic acids</b>								
<a href="#">375-73-5</a>	PFBS	Perfluorobutane sulfonic acid						x
<a href="#">2706-91-4</a>	PFPeS	Perfluoropentane sulfonic acid						x
<a href="#">355-46-4</a>	PFHxS	Perfluorohexane sulfonic acid						x
<a href="#">375-92-8</a>	PFHpS	Perfluoroheptane sulfonic acid						x
<a href="#">1763-23-1</a>	PFOS (3)	Perfluorooctane sulfonic acid					x	
<b>Per- and polyfluoroalkyl ether carboxylic acids</b>								
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
<a href="#">908020-52-0</a>	EEA-NH <sub>4</sub>	Ammonium salt of perfluoro[(2-ethyloxy-ethoxy)acetic acid						x
80153-82-8	EEA	Perfluoro[(2-ethyloxy-ethoxy)acetic acid						x
<b>Fluoropolymers</b>								
<a href="#">9002-84-0</a>	PTFE	Polytetrafluoroethylene		x				
<a href="#">25067-11-2</a>	FEP	Fluorinated Ethylene Propylene Copolymer		x				
<a href="#">26655-00-5</a>	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				
<a href="#">31784-04-0</a>		Perfluoro Alkoxy Polymer Ethene, 1,1,2,2-tetrafluoro-, polymer with 1,1,2-trifluoro-2-(1,1,2,2,2-pentafluoroethoxy) ethane		x				
<a href="#">26425-79-6</a>	MFA	Perfluoro Methyl Alkoxy Polymer Ethene, 1,1,2,2-tetrafluoro-, polymer with 1,2,2-trifluoro-2-(trifluoromethoxy)ethene		x				
<b>Perfluoroalkyl halides (incl. linear and branched isomers)</b>								
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-tricosafuoro-11-iodo-						

			Out of scope					
CAS No. <sup>a</sup>	Acronym	Designation	(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
<a href="#">307-60-8</a>		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-pentacosafuoro-12-iodo-						
<a href="#">307-63-1</a>		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-nonacosafuoro-14-iodo-						
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-hentriacontafuoro-15-iodo-						
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-heptacosafuoro-13-iodo-						
<a href="#">423-62-1</a>		Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-10-iodo-						
<a href="#">558-97-4</a>		Nonane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-9-iodo-						
<a href="#">677-93-0</a>		Decane, 1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-eicosafuoro-10-iodo-2-(trifluoromethyl)-						
<a href="#">3248-61-1</a>		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-tetracosafuoro-12-iodo-2-(trifluoromethyl)-						
<a href="#">3248-63-3</a>		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-octacosafuoro-14-iodo-2-(trifluoromethyl)-						
Fluorotelomer iodides (FTIs)								
<a href="#">2043-54-1</a>	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-heneicosafuoro-12-iodo-						
<a href="#">30046-31-2</a>	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-pentacosafuoro-14-iodo-						
<a href="#">65510-55-6</a>	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-nonacosafuoro-16-iodo-						
<a href="#">65510-56-7</a>	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-						
Fluorotelomer olefins (FTOs)								
<a href="#">30389-25-4</a>	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-heneicosafuoro-						
Fluorotelomer alcohols (FTOHs)								
<a href="#">60699-51-6</a>	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-nonacosafuoro-						
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-heptacosafuoro-						
<a href="#">39239-77-5</a>	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-pentacosafuoro-						
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-tricosafuoro-						

CAS No. <sup>a</sup>	Acronym	Designation	Out of scope					
			(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
<a href="#">865-86-1</a>	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-heneicosafuoro-						
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-						
<b>Fluorotelomer saturated and non-saturated acids (FTCAs and FTUCAs)</b>								
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-eicosafuoro-						
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-heneicosafuoro-						
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-						
<b>Fluorotelomer phosphate esters (PAPs)</b>								
<a href="#">94200-46-1</a>		1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafuoro-, 1-(dihydrogen phosphate), diammonium salt						
<a href="#">94200-47-2</a>		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-pentacosafuoro-, 1-(dihydrogen phosphate), diammonium salt						
<a href="#">94200-48-3</a>		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-nonacosafuoro-, 1-(dihydrogen phosphate), diammonium salt						
<a href="#">94200-50-7</a>		1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,13,13,13-eicosafuoro-12-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt						
<a href="#">94200-51-8</a>		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-tetracosafuoro-14-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt						
<a href="#">94200-52-9</a>		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-octacosafuoro-16-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt						
<a href="#">93857-45-5</a>		1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-, 1-(dihydrogen phosphate), ammonium salt (1:2)						
<a href="#">57678-05-4</a>	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-heneicosafuoro-, 1-(dihydrogen phosphate)						
<a href="#">1895-26-7</a>	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-heneicosafuoro-, 1,1'-(hydrogen phosphate)						
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-heneicosafuorododecyl) 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-pentacosafuorotetradecyl) ester						
<a href="#">93776-21-7</a>	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-heneicosafuorodecyl) phosphate						
63295-20-5		1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)-, 1,1-(hydrogen phosphate)						

CAS No. <sup>a</sup>	Acronym	Designation	Out of scope					
			(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
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						
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						
<b>Fluorotelomer acrylates and methacrylates (FTACs and FTMACs)</b>								
<a href="#">16083-78-6</a>		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-octacosafuoro-2-hydroxy-16-(trifluoromethyl)heptadecyl ester						
<a href="#">4980-53-4</a>	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-nonacosafuorohexadecyl ester						
<a href="#">6014-75-1</a>	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-pentacosafuorotetradecyl ester						
<a href="#">16083-87-7</a>		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-tetracosafuoro-2-hydroxy-14-(trifluoromethyl)pentadecyl ester						
<a href="#">52956-82-8</a>		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-tetracosafuoro-13-(trifluoromethyl)tetradecyl ester						
<a href="#">74256-14-7</a>		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						
<a href="#">74256-15-8</a>		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						
<a href="#">17741-60-5</a>	10:2 FTAC							
<a href="#">2144-54-9</a>	10:2 FTMAC	2-(Perfluorodecyl) ethyl methacrylate						
		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						
<a href="#">91615-22-4</a>		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-octacosafuoro-15-(trifluoromethyl)hexadecyl ester						
<a href="#">94158-63-1</a>		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						
<a href="#">94158-64-2</a>		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-octacosafuoro-15-(trifluoromethyl)hexadecyl ester						
<a href="#">94158-65-3</a>		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						

			Out of scope					
CAS No. <sup>a</sup>	Acronym	Designation	(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
Other fluorotelomer-based non-polymers								
<a href="#">93776-12-6</a>		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-pentacosafuoro-2-hydroxypentadecyl) amino]-, inner salt						
<a href="#">93776-13-7</a>		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-heneicosafuoro-2-hydroxytridecyl)amino] -N,N-dimethyl-, inner salt						
<a href="#">93776-15-9</a>		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-tetracosafuoro-2-hydroxy-14- (trifluoromethyl) pentadecyl]amino]-, inner salt						
<a href="#">94159-83-8</a>		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-eicosafuoro-12-(trifluoromethyl)-						
<a href="#">94159-79-2</a>		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-pentacosafuoro-						
<a href="#">94159-80-5</a>		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-heneicosafuoro-						
<a href="#">94159-82-7</a>		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-tetracosafuoro-14-(trifluoromethyl)-						
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-heneicosafuorododecyl)-						
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-heneicosafuorododecyl)trimethoxy-						
<a href="#">93776-00-2</a>		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-pentacosafuoro-						
154478-87-2	F10H2	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
1835251-22-3	F10H3	Tridecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
1244062-17-6	F10H4	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
250738-42-2	F10H5	Pentadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
116177-54-9	F10H6	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
200817-54-5	F10H7	Heptadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
93454-70-7	F10H8	Octadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
125635-85-0	F10H9	Nonadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
90499-29-9	F10H10	Eicosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						



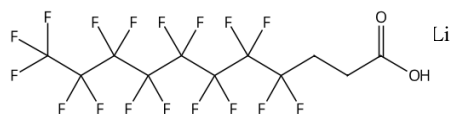
CAS No. <sup>a</sup>	Acronym	Designation	Out of scope					
			(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
93454-71-8	F10H12	Docosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10-heneicosafuoro-						
31200-97-2		1-Undecanol, 4,4,5,5,6,6,7,7,8,8,9,9,10,11,11,11-hexadecafluoro-10-(trifluoromethyl)-						
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-						
<a href="#">307-46-0</a>	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-heneicosafuoro-						
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-heneicosafuoro-						
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-eicosafuoro-						
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-						
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-heneicosafuoro-						
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]-						
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]-						
-		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						
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-heneicosafuoro-N,N-dimethyl-						
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						
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-tricosafuoro-N,N-dimethyl-, inner salt						
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-eicosafuoro-N,N-dimethyl-, inner salt						
80244-66-2		1-Tridecanaminium, 2-(acetyloxy)-N-(carboxy methyl)-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12, 12,13,13,13-heneicosafuoro-N,N-dimethyl-, inner salt						
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-heneicosafuoro-1-dodecanethiol						
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-heneicosafuoro-						
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-heneicosafuoro-, 1-(hydrogen sulfate), ammonium salt (1:1)						

CAS No. <sup>a</sup>	Acronym	Designation	Out of scope					
			(i) <sup>b</sup>	(ii) <sup>c</sup>	(iii) <sup>d</sup>	(iv) <sup>e</sup>	(v) <sup>f</sup>	Other
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-heneicosafuorododecyl)sulfinyl]-						
–		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-heneicosafuorododecyl)thio]-, chloride (1:1)						
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-heneicosafuorododecyl) thio]-						
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-heneicosafuorododecyl)thio]acetyl]amino]-N,N,N-trimethyl-						
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-heneicosafuorododecyl) thio]acetyl] amino]-N,N-dimethyl-, inner salt						
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-heneicosafuorododecyl)thio]-4-oxo-						
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-heneicosafuorododecyl)thio]-1-oxopropyl] amino]-2-methyl-						
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-heneicosafuorododecyl)thio]-1-oxopropyl]amino]-2-methyl-, sodium salt (1:1)						
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-heneicosafuorododecyl)sulfinyl]-1-oxopropyl]amino]-2-methyl-						
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-heneicosafuoro-						
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-heneicosafuorododecyl)sulfonyl]amino]-N,N-dimethyl-, inner salt						
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-heneicosafuorododecyl) sulfonyl]amino]-N,N-dimethyl-, inner salt						

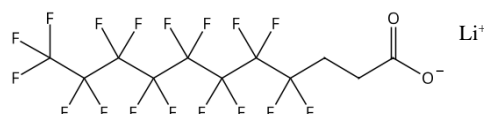
**Table 3: 2D structural formulas for some selected substances added by Switzerland to the indicative list of substances covered by the listing of PFOA, its salts and PFOA-related compounds (ver. February 2022)**

Note:

The structural formulas presented in Table 1 were directly taken from Chemical Abstracts Service's (CAS) **SciFinder**<sup>4</sup>. 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:

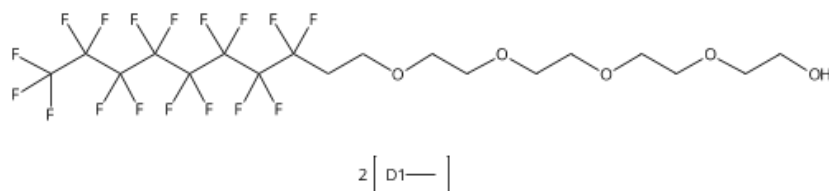


**Incorrect form**



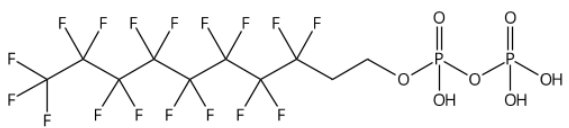
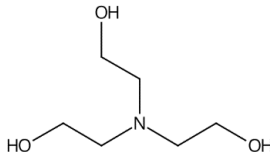
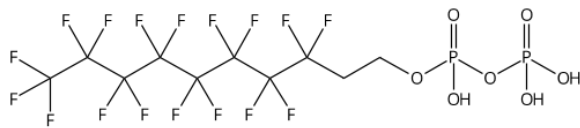
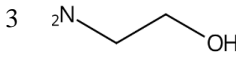
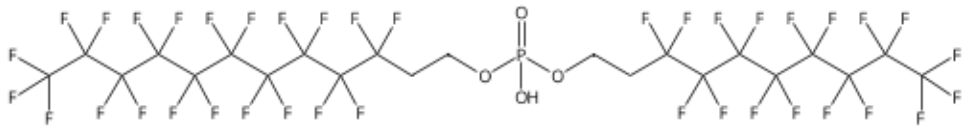
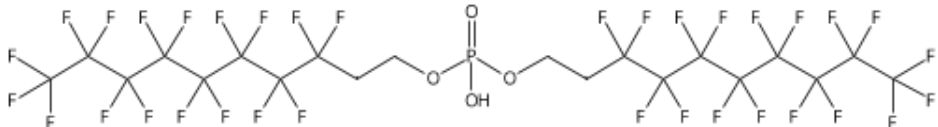
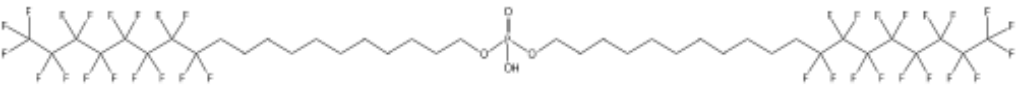
**Correct form**

Some substances do have an unknown or variable structure. In the structural formulas from SciFinder<sup>n</sup>, "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).

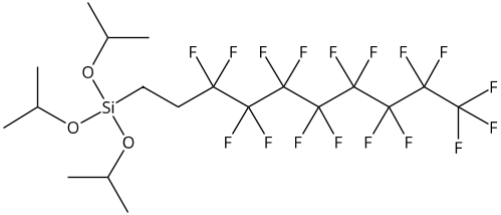
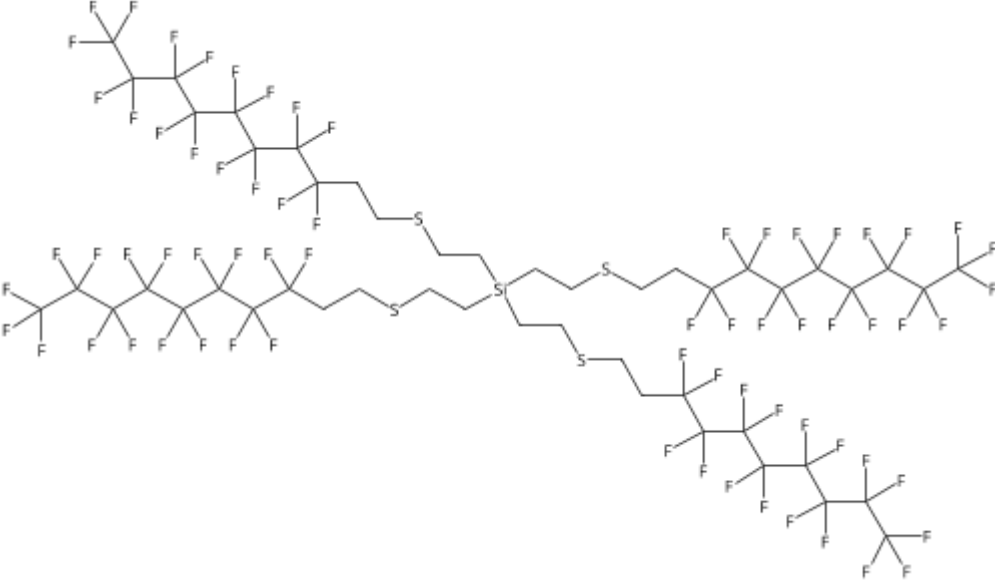
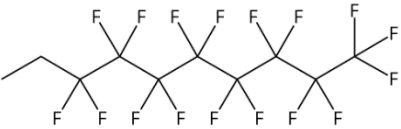
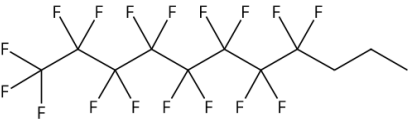


<sup>4</sup> <https://www.cas.org/products/scifinder>.

CAS No.	2D Structural Formula
Fluorotelomer phosphate esters (PAPs)	
<a href="#">63295-18-1</a>	$2 \text{ NH}_3$
63295-19-2	
63295-23-8	$2 \text{ NH}_3$
63295-24-9	$2 \text{ NH}_3$
63295-22-7	

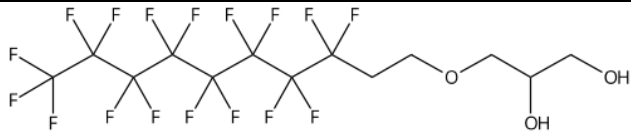
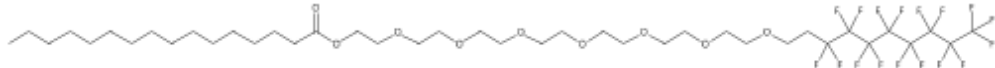

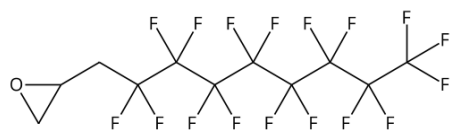
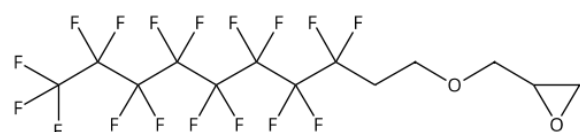
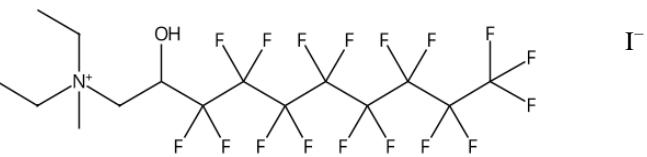
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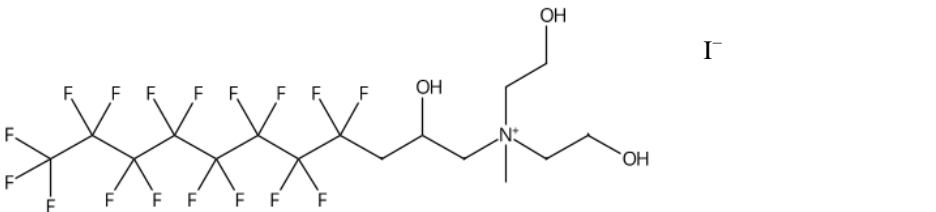
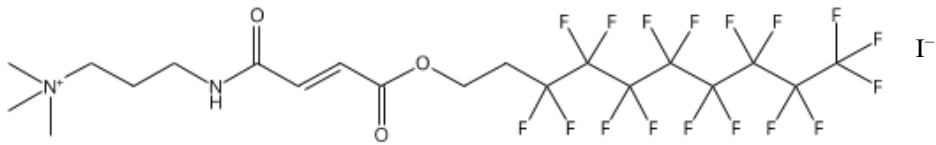
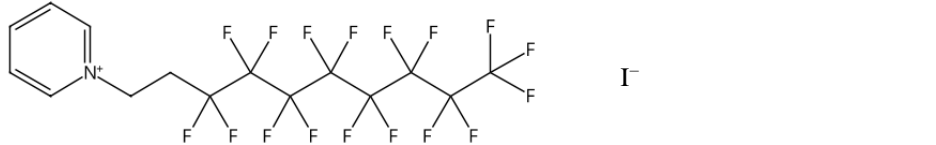
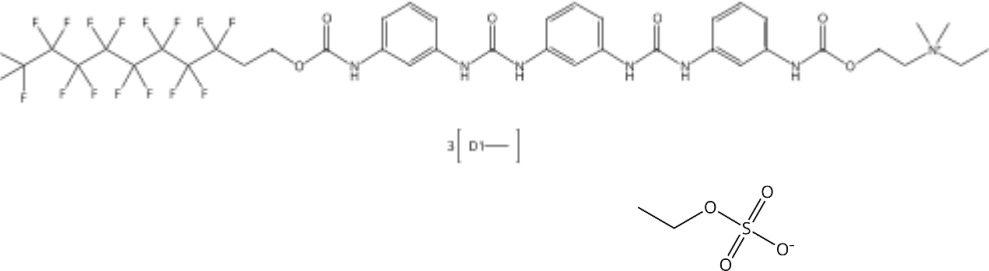
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<b>Other fluorotelomer-based non-polymers</b>	

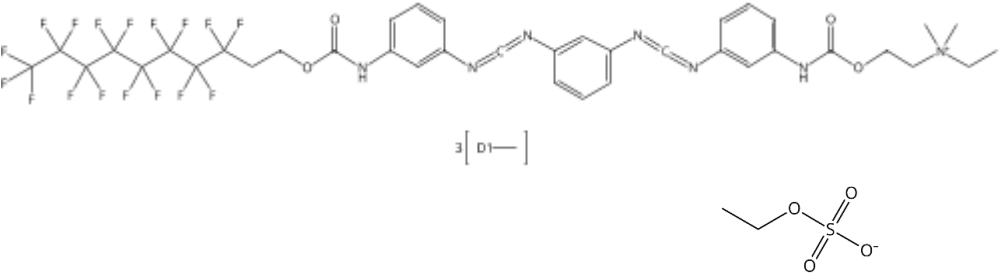
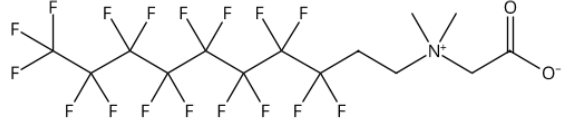
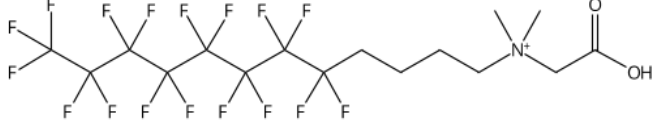
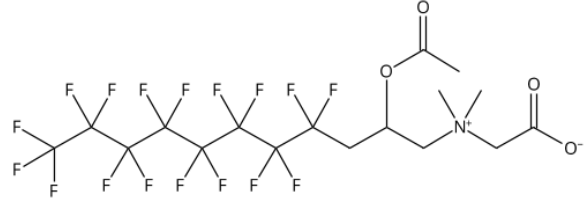
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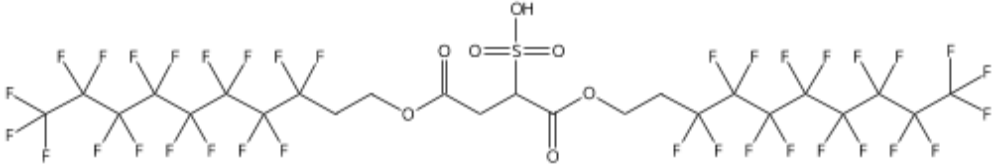
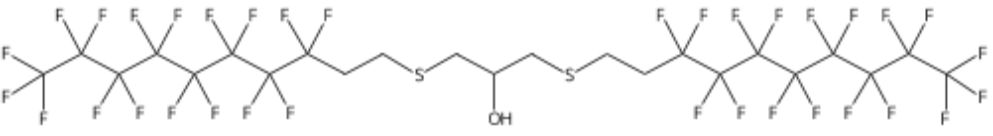
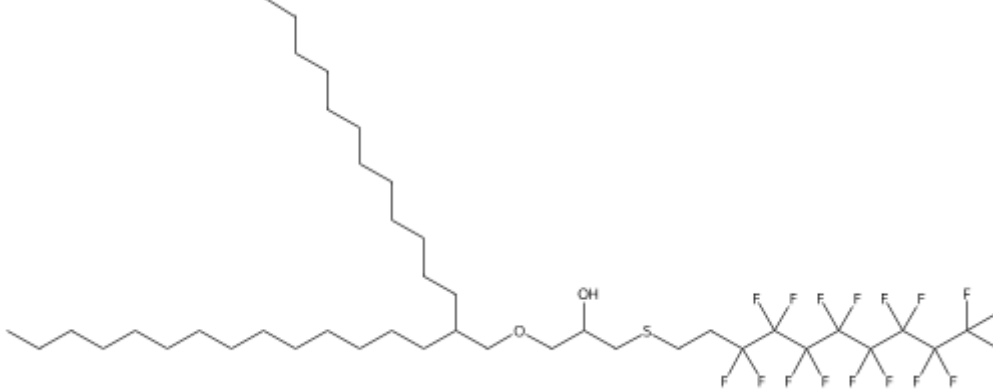
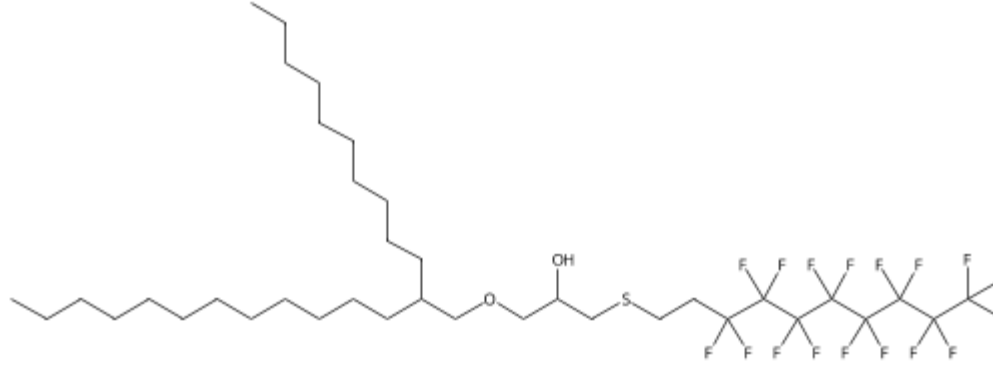
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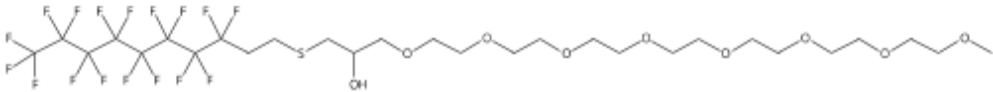
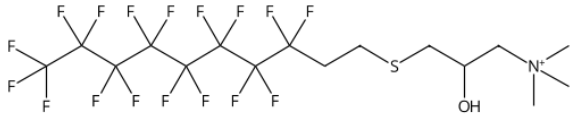
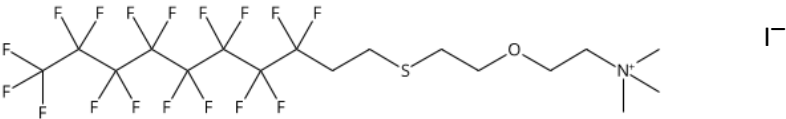
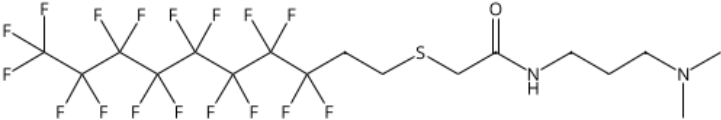
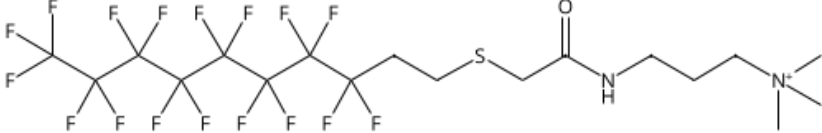
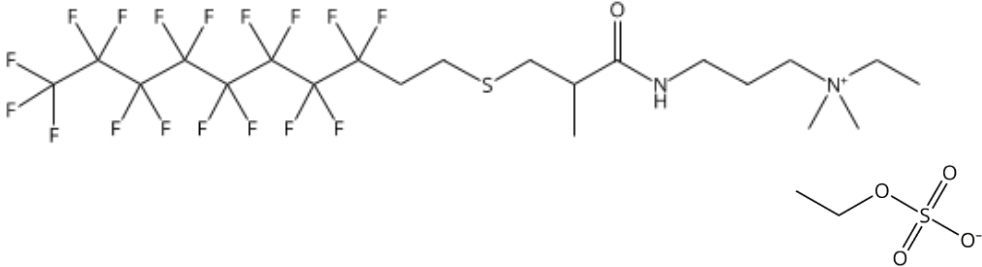


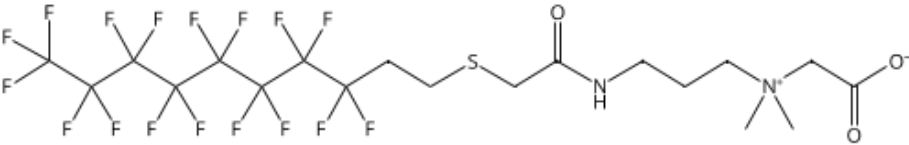
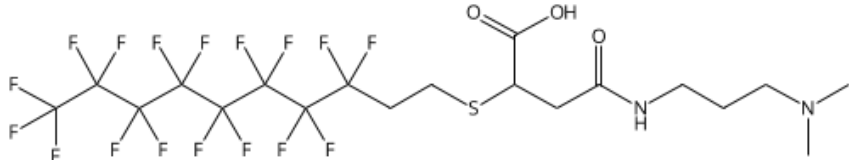
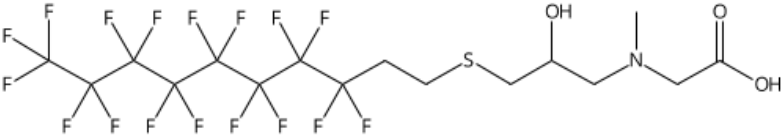
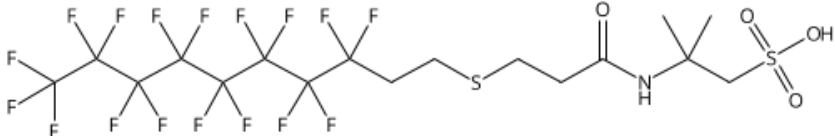
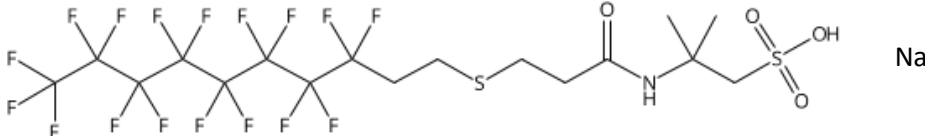
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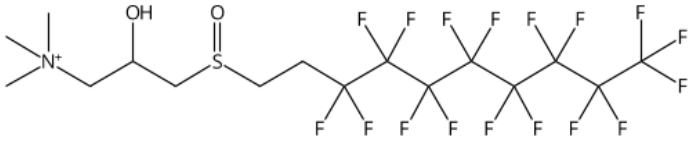
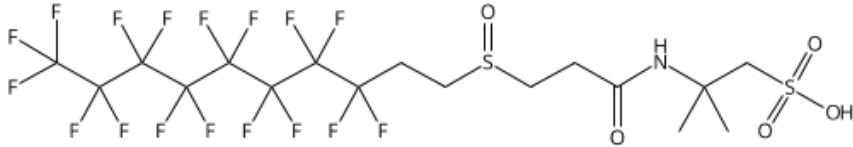
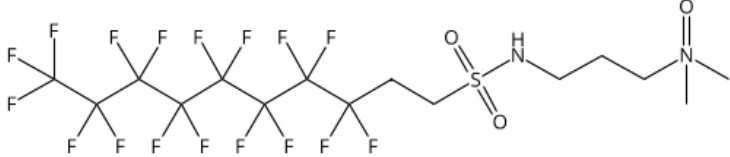
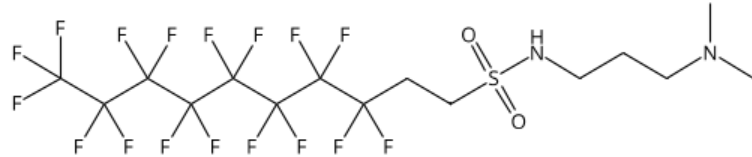
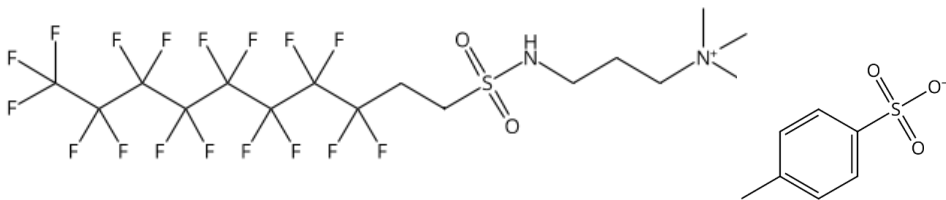
CAS No.	2D Structural Formula
<a href="#">93776-18-2</a>	 <p>The structure shows a long-chain perfluorinated alcohol with a quaternary ammonium cation and an iodide counterion. The cation is represented as <math>\text{I}^-</math>.</p>
121912-26-3	 <p>The structure shows a perfluorinated ester with a quaternary ammonium cation and an iodide counterion. The cation is represented as <math>\text{I}^-</math>.</p>
<a href="#">25935-14-2</a>	 <p>The structure shows a perfluorinated pyridinium salt with an iodide counterion. The cation is represented as <math>\text{I}^-</math>.</p>
100155-23-5	 <p>The structure shows a complex perfluorinated molecule with a quaternary ammonium cation, an iodide counterion, and a sulfonate group. The cation is represented as <math>\text{I}^-</math> and the sulfonate group as <math>\text{SO}_3^-</math>.</p>

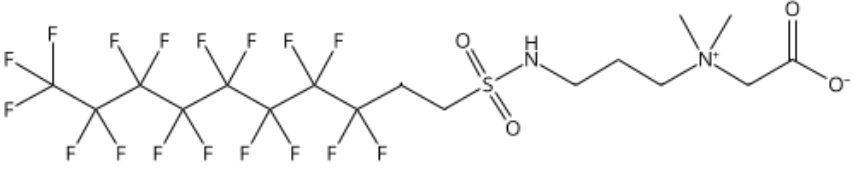
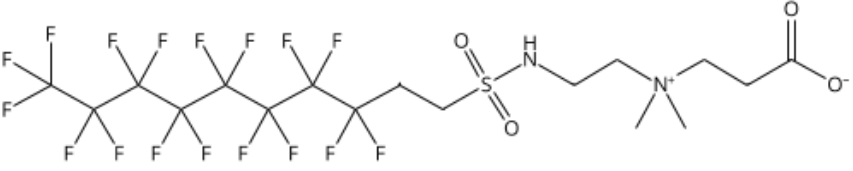
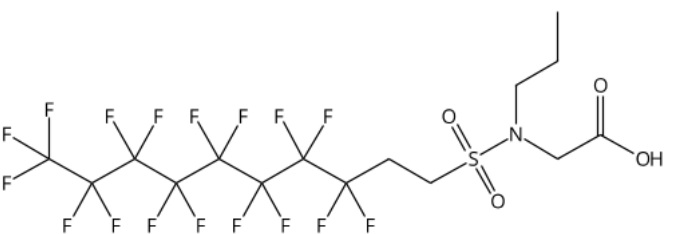
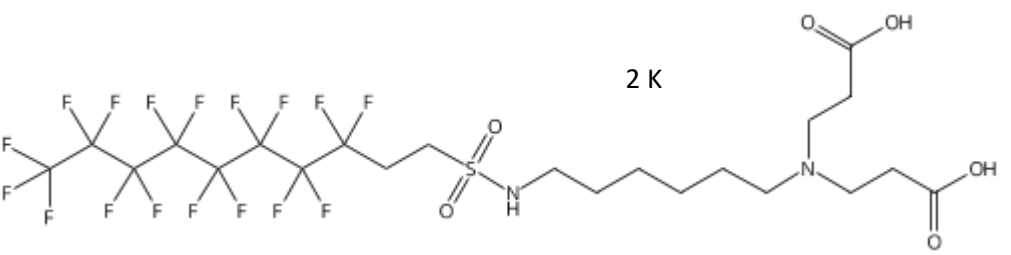
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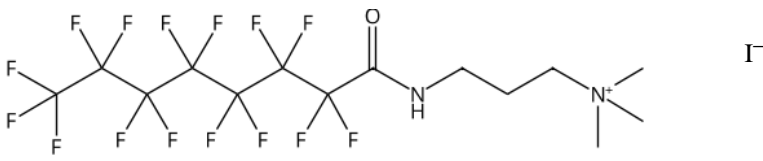
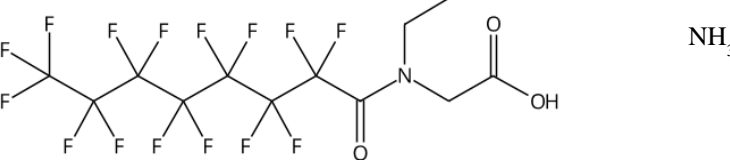
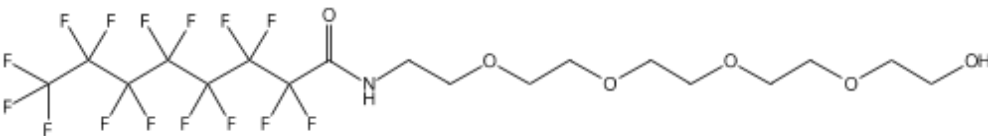
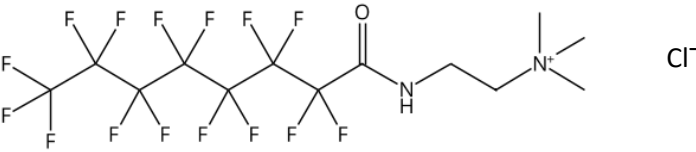
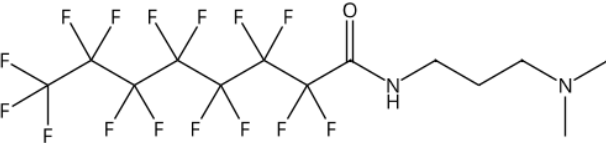
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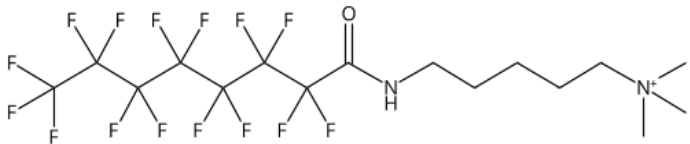
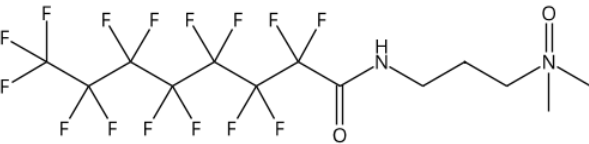
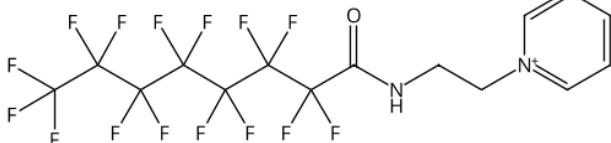
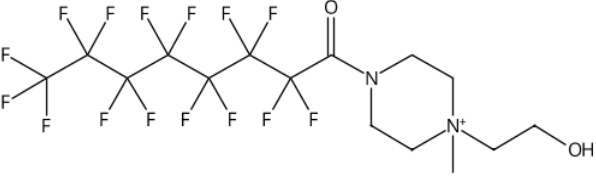
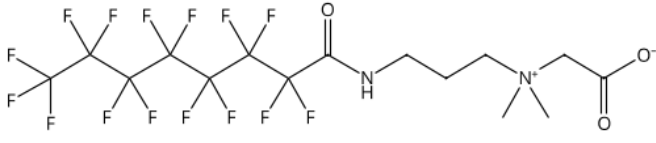
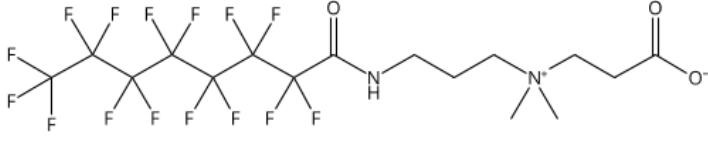
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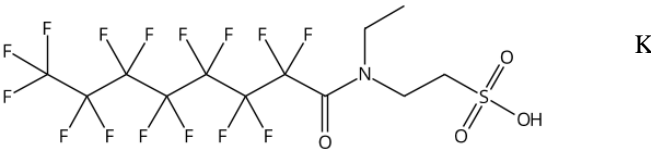
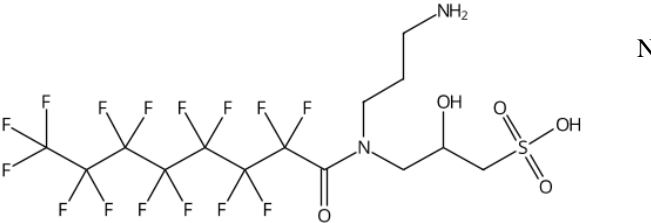
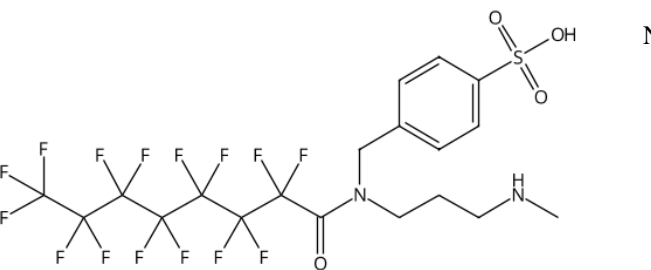
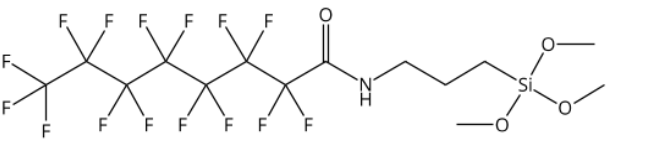
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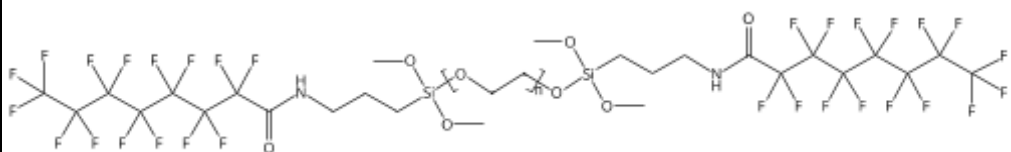
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441765-18-0	 <p data-bbox="1265 622 1310 654">Li</p>
98900-53-9	 <p data-bbox="1120 925 1176 957">2 K</p>
Other substances	



CAS No.	2D Structural Formula
<a href="#">335-90-0</a>	
138473-79-7	
89932-71-8	
178766-44-4	
376-23-8	

CAS No.	2D Structural Formula
91707-61-8	 $\text{I}^-$
30295-53-5	
308-01-0	 $\text{Cl}^-$
103555-98-2	 $\text{Cl}^-$
90179-39-8	
5158-52-1	

CAS No.	2D Structural Formula
57670-46-9	
98900-76-6	
98900-75-5	
98046-76-5	

CAS No.	2D Structural Formula
154380-30-0	 <p>The chemical structure is a symmetrical molecule consisting of two identical perfluorinated chains connected by a central linker. Each chain is a heptafluorooctanoate derivative, specifically 7,7,8,8,8-pentafluorooctanoate, where the terminal carboxyl group is converted to an amide. The two amide groups are linked via a central chain that includes two methoxy-substituted siloxane groups and a central ether linkage. The structure is drawn in a skeletal format with fluorine atoms explicitly labeled as 'F'.</p>

## References

1. Buck RC, Franklin J, Berger U, Conder JM, Cousins IT, de Voogt P, Jensen AA, Kannan K, Mabury SA, van Leeuwen SPJ (2011): *Perfluoroalkyl and polyfluoroalkyl substances in the environment: terminology, classification, and origins*. Integrated Environmental Assessment and Management, 7(4): 513–541, <https://doi.org/10.1002/ieam.258>.
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9. Young CJ, Mabury SA (2010): *Atmospheric Perfluorinated Acid Precursors: Chemistry, Occurrence, and Impacts*. In: De Voogt P. (eds) Reviews of Environmental Contamination and Toxicology, Volume 208. Springer, New York. [https://doi.org/10.1007/978-1-4419-6880-7\\_1](https://doi.org/10.1007/978-1-4419-6880-7_1).