

**Stockholm Convention
on Persistent Organic
Pollutants****Persistent Organic Pollutants Review Committee
Thirteenth meeting**

Rome, 17–20 October 2017

Item 5 (a) (ii) of the provisional agenda*

**Technical work: consideration of draft risk management
evaluations: pentadecafluorooctanoic acid
(CAS No: 335-67-1, PFOA, perfluorooctanoic acid),
its salts and PFOA-related compounds****Supporting information related to the draft risk management
evaluation on pentadecafluorooctanoic acid (CAS No: 335-67-1,
PFOA, perfluorooctanoic acid), its salts and PFOA-related
compounds****Addendum****Non-exhaustive lists of substances covered and not covered by the draft
risk management evaluation****Note by the Secretariat**

As referred to in the note by the Secretariat on a draft risk management evaluation on pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds (UNEP/POPS/POPRC.13/3), the annex to the present note sets out non-exhaustive lists of substances covered and not covered by the draft risk management evaluation. The present note, including its annex, has not been formally edited.

* UNEP/POPS/POPRC.13/1.

Annex

**PFOA, ITS SALTS AND PFOA-RELATED
COMPOUNDS**

DRAFT RISK MANAGEMENT EVALUATION

**NON-EXHAUSTIVE LISTS OF SUBSTANCES
COVERED AND NOT COVERED BY THE
DRAFT RISK MANAGEMENT EVALUATION**

10 July 2017

Non-exhaustive lists of substances covered and not covered by the draft risk management evaluation

1. Non-exhaustive lists of chemical substances and substance groups covered and not covered by the draft risk management evaluation on PFOA, its salts and PFOA-related compounds (UNEP/POPS/POPRC.13/3) are provided in Table 1: Non-exhaustive list of substances covered by the risk management evaluation on PFOA, its salts and PFOA-related compounds (page 4–12) and Table 2: Non-exhaustive list of substances not covered by the risk management evaluation on PFOA, its salts and PFOA-related compounds (page 13–14), respectively.

2. Paragraph 17 of the draft risk management evaluation specifies substances covered by the risk management evaluation (a, b, c including (i)–(iii) and other) and those not covered (including (i)–(v) and other) as follows:

“The risk management evaluation covers:

- (a) PFOA (pentadecafluorooctanoic acid, CAS No: 335-67-1, EC No: 206-397-9) including any of its branched isomers;
- (b) Its salts; and
- (c) PFOA-related compounds which, for the purposes of this risk management evaluation, are any substances that degrade to PFOA, including any substances (including salts and polymers) having a linear or branched perfluoroheptyl group with the moiety (C₇F₁₅)C as one of the structural elements, for example:
 - (i) Polymers with ≥ C₈ based perfluoroalkyl side chains;¹
 - (ii) 8:2 fluorotelomer compounds;
 - (iii) 10:2 fluorotelomer compounds.

The compounds below do not degrade to PFOA and are therefore not included as PFOA-related compounds:

- (i) C₈F₁₇-X, where X= F, Cl, Br;
- (ii) Fluoropolymers² that are covered by CF₃[CF₂]_n-R', where R'=any group, n>16;³ or
- (iii) Perfluoroalkyl carboxylic and phosphonic acids (including their salts, esters, halides and anhydrides) with ≥ 8 perfluorinated carbons; or
- (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 (PFOF) as listed in Annex B to the Stockholm Convention.”

3. The non-exhaustive lists of substances have been prepared in order to support and facilitate the assignment of substances and comprehension of the scope of the risk management evaluation.

4. Figure 1: **Major synthesis routes of fluorotelomer-based substances including side-chain fluorinated polymers (FOEN, 2017)** (page 15) provides major synthesis routes of fluorotelomer-based substances including side-chain fluorinated polymers (see section I of FOEN, 2017).

¹ DuPont, 1998. Technical information: Zonyl fluorochemical intermediates.

² Fluoropolymers have a carbon-only polymer backbone with F directly attached to backbone C atoms.

³ Such as PTFE (polytetrafluoroethylene), FEP (fluorinated ethylene propylene polymer) and PFA (perfluoroalkoxy polymer).

Table 1: Non-exhaustive list of substances covered by the risk management evaluation on PFOA, its salts and PFOA-related compounds

Note:

1. Polymers with $\geq C_8$ based perfluoroalkyl side chains;
2. 8:2 fluorotelomer compounds;
3. 10:2 fluorotelomer compounds.
4. Whenever a compound contains a component degrading into PFOA, it is considered to be within the scope of the risk management evaluation. This applies even if the compound contains other components that do not themselves degrade into PFOA. Such compounds are marked with an asterisk (*).

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

| | | | (a) | (b) | (c) | | | |
|---|---------|--|------|------------|------------------------|-------------------|--------------------|--------------------|
| | | | PFOA | PFOA salts | PFOA-related compounds | | | |
| CAS No. | Acronym | Designation | | | (i) ¹ | (ii) ² | (iii) ³ | Other ⁴ |
| 1882109-59-2 | | Butanoic acid, 3,3,4,4,4-pentafluoro-2-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-2-(trifluoromethyl)- | x | | | | | |
| 1882109-58-1 | | Butanoic acid, 3,3,4,4,4-pentafluoro-2,2-bis(1,1,2,2,2-pentafluoroethyl)- | x | | | | | |
| 1812247-20-3 | | Hexanoic acid, 2,2,4,4,5,5,6,6,6-nonafluoro-3,3-bis(trifluoromethyl)- | x | | | | | |
| 1812247-19-0 | | Hexanoic acid, 2,3,3,4,5,5,6,6,6-nonafluoro-2,4-bis(trifluoromethyl)- | x | | | | | |
| 1812247-18-9 | | Hexanoic acid, 2,3,4,4,5,5,6,6,6-nonafluoro-2,3-bis(trifluoromethyl)- | x | | | | | |
| 1812247-17-8 | | Hexanoic acid, 3,3,4,4,5,5,6,6,6-nonafluoro-2,2-bis(trifluoromethyl)- | x | | | | | |
| 1192593-79-5 | | Hexanoic acid, 2,2,3,3,5,5,6,6,6-nonafluoro-4,4-bis(trifluoromethyl)- | x | | | | | |
| 1144512-36-6 | | Hexanoic acid, 2,2,3,3,4,5,6,6,6-nonafluoro-4,5-bis(trifluoromethyl)- | x | | | | | |
| 1144512-35-5 | | Hexanoic acid, 2,2,3,3,4,4,5,6,6,6-nonafluoro-3,5-bis(trifluoromethyl)- | x | | | | | |
| 1144512-34-4 | | Hexanoic acid, 2,2,3,3,4,4,6,6,6-nonafluoro-5,5-bis(trifluoromethyl)- | x | | | | | |
| 1144512-18-4 | | Heptanoic acid, 2,2,3,3,4,5,5,6,6,7,7,7-dodecafluoro-4-(trifluoromethyl)- | x | | | | | |
| 909009-42-3 | | Heptanoic acid, 2,2,3,3,4,4,5,6,6,7,7,7-dodecafluoro-5-(trifluoromethyl)- | x | | | | | |
| 705240-04-6 | | Heptanoic acid, 2,2,3,4,4,5,5,6,6,7,7,7-dodecafluoro-3-(trifluoromethyl)- | x | | | | | |
| 207678-51-1 | | Heptanoic acid, 2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-2-(trifluoromethyl)- | x | | | | | |
| 123116-17-6 | | Isooctanoic acid, pentadecafluoro- | x | | | | | |
| 35605-76-6 | | Hexanoic acid, 2,3,3,4,4,5,5,6,6,6-decafluoro-2-(1,1,2,2,2-pentafluoroethyl)- | x | | | | | |
| 15166-06-0 | | Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-6-(trifluoromethyl)- | x | | | | | |
| PFOA salts (including linear and branched isomers) | | | | | | | | |
| 90480-56-1 | APFO | Ammonium salt, linear/branched PFOA (Octanoic acid, pentadecafluoro-, branched, ammonium salt) | | x | | | | |
| 3825-26-1 | APFO | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt (1:1) | | x | | | | |
| 335-95-5 | Na-PFOA | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, sodium salt (1:1) | | x | | | | |
| 2395-00-8 | K-PFOA | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, potassium salt (1:1) | | x | | | | |
| 335-93-3 | | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, silver(1+) salt (1:1) | | x | | | | |
| 68141-02-6 | | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) salt (3:1) | | x | | | | |
| 98241-25-9 | | Ethanaminium, N,N,N-triethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1) | | x | | | | |
| 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, 2,2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-, ammonium salt (1:1) | | x | | | | |
| 61436-04-2 | | Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-, iron salt (1:x) | | x | | | | |
| 29457-73-6 | | Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-, potassium salt (1:1) | | x | | | | |
| 18017-22-6 | | Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-, sodium salt (1:1) | | x | | | | |

| | | | (a) | (b) | (c) | | | |
|---|-------------|---|------|------------|------------------------|-------------------|--------------------|--------------------|
| | | | PFOA | PFOA salts | PFOA-related compounds | | | |
| CAS No. | Acronym | Designation | | | (i) ¹ | (ii) ² | (iii) ³ | Other ⁴ |
| 15739-82-9 | | Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-, chromium salt (1:x) | | x | | | | |
| 15715-47-6 | | Heptanoic acid, 2,2,3,3,4,4,5,5,6,7,7,7-dodecafluoro-6-(trifluoromethyl)-, aluminum salt (3:1) | | x | | | | |
| Other PFCA mixtures containing PFOA | | | | | | | | |
| 68333-92-6 | | Fatty acids, C7-13, perfluoro | | | | | | x* |
| 91032-01-8 | | Fatty acids, C7-19, perfluoro | | | | | | x* |
| 72968-38-8 | | Fatty acids, C7-13, perfluoro, ammonium salts | | | | | | x* |
| PFOA esters and anhydrides | | | | | | | | |
| 376-27-2 | | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, methyl ester | | | | | | x |
| 3108-24-5 | | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ethyl ester | | | | | | x |
| 33496-48-9 | | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, 1,1'-anhydride | | | | | | x |
| Perfluoroalkyl phosphonic and phosphinic acids (PFPA and PFPIAs) | | | | | | | | |
| 68412-69-1 | | Phosphinic acid, bis(perfluoro-C6-12-alkyl) derivs. | | | | | | x* |
| 93062-53-4 | | Phosphinic acid, bis(perfluoro-C6-12-alkyl) derivs., aluminum salts | | | | | | x* |
| 40143-79-1 | C8/C8-PFPIA | Bis(perfluorooctyl)phosphinic acid | | | | | | x |
| 610800-34-5 | C6/C8-PFPIA | Perfluorohexylperfluorooctyl phosphinate | | | | | | x |
| Perfluoroalkyl halides (incl. linear and branched isomers) | | | | | | | | |
| 335-66-0 | | Octanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro- | | | | | | x |
| 507-63-1 | PFOI | Perfluorooctyl iodide | | | | | | x |
| 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- | | | | | | x |
| 307-60-8 | | Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-12-iodo- | | | | | | x |
| 307-63-1 | | Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafuoro-14-iodo- | | | | | | x |
| 335-79-5 | | Pentadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15-hentriacontafuoro-15-iodo- | | | | | | x |
| 376-04-5 | | Tridecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13-heptacosafuoro-13-iodo- | | | | | | x |
| 423-62-1 | | Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-10-iodo- | | | | | | x |
| 558-97-4 | | Nonane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-9-iodo- | | | | | | x |
| 677-93-0 | | Decane, 1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-eicosafuoro-10-iodo-2-(trifluoromethyl)- | | | | | | x |
| 3248-61-1 | | Dodecane, 1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-tetracosafuoro-12-iodo-2-(trifluoromethyl)- | | | | | | x |
| 3248-63-3 | | Tetradecane, 1,1,1,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-octacosafuoro-14-iodo-2-(trifluoromethyl)- | | | | | | x |
| 307-43-7 | | Decane, 1-bromo-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro- | | | | | | x |

| | | | (a) | (b) | (c) | | | |
|---|------------|---|------|------------|------------------------|-------------------|--------------------|--------------------|
| | | | PFOA | PFOA salts | PFOA-related compounds | | | |
| CAS No. | Acronym | Designation | | | (i) ¹ | (ii) ² | (iii) ³ | Other ⁴ |
| 90622-71-2 | | Alkyl iodides, C6-18, perfluoro | | | | | | x* |
| Fluorotelomer iodides (FTIs) | | | | | | | | |
| 2043-53-0 | 8:2 FTI | Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo- | | | | x | | |
| 2043-54-1 | 10:2 FTI | Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-12-iodo- | | | | | x | |
| 30046-31-2 | 12:2 FTI | Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-14-iodo- | | | | | | x |
| 65510-55-6 | 14:2 FTI | Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafuoro-16-iodo- | | | | | | x |
| 65510-56-7 | 9:2 FTI | Undecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-nonadecafluoro-11-iodo- | | | | | | x |
| 68188-12-5 | FTIs | Alkyl iodides, C4-20, γ - ω -perfluoro | | | | | | x* |
| 68390-33-0 | FTIs | Alkyl iodides, C10-12, γ - ω -perfluoro | | | | | | x |
| Fluorotelomer olefins (FTOs) | | | | | | | | |
| 21652-58-4 | 8:2 FTO | 8:2 Fluorotelomer olefin | | | | x | | |
| | | 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- | | | | | | |
| 30389-25-4 | 10:2 FTO | 1-Dodecene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro- | | | | | x | |
| Fluorotelomer alcohols (FTOHs) | | | | | | | | |
| 60699-51-6 | 14:2 FTOH | 1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro- | | | | | | x |
| 39239-77-5 | 12:2 FTOH | 1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro- | | | | | | x |
| 865-86-1 | 10:2 FTOH | 1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro- | | | | | x | |
| 678-39-7 | 8:2 FTOH | 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- | | | | x | | |
| Fluorotelomer saturated and non-saturated acids (FTCAs and FTUCAs) | | | | | | | | |
| 70887-94-4 | 10:2 FTUCA | 2-Dodecenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-eicosafuoro- | | | | | x | |
| 53826-13-4 | 10:2 FTCA | Dodecanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro- | | | | | x | |
| 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 | | |
| 27854-31-5 | 8:2 FTCA | Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- | | | | x | | |
| Fluorotelomer phosphate esters (PAPs) | | | | | | | | |
| 63295-27-2 | | 1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,13,13,13-eicosafuoro-12-(trifluoromethyl)-, 1-(dihydrogen phosphate) | | | | | | x |
| 63295-28-3 | | 1,2-Pentadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafuoro-14-(trifluoromethyl)-, 1-(dihydrogen phosphate) | | | | | | x |

| | | | (a) | (b) | (c) | | | |
|---|--------------|---|------|------------|------------------------|-------------------|--------------------|--------------------|
| | | | PFOA | PFOA salts | PFOA-related compounds | | | |
| CAS No. | Acronym | Designation | | | (i) ¹ | (ii) ² | (iii) ³ | Other ⁴ |
| 63295-29-4 | | 1,2-Heptadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,17,17,17-octacosafuoro-16-(trifluoromethyl)-, 1-(dihydrogen phosphate) | | | | | | x |
| 94158-70-0 | | 1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafuoro-, 1-(dihydrogen phosphate) | | | | | | x |
| 94200-46-1 | | 1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafuoro-, 1-(dihydrogen phosphate), diammonium salt | | | | | | x |
| 94200-47-2 | | 1,2-Pentadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafuoro-, 1-(dihydrogen phosphate), diammonium salt | | | | | | x |
| 94200-48-3 | | 1,2-Heptadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,17-nonacosafuoro-, 1-(dihydrogen phosphate), diammonium salt | | | | | | x |
| 94200-50-7 | | 1,2-Tridecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,13,13,13-eicosafuoro-12-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt | | | | | | x |
| 94200-51-8 | | 1,2-Pentadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafuoro-14-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt | | | | | | x |
| 94200-52-9 | | 1,2-Heptadecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,17,17,17-octacosafuoro-16-(trifluoromethyl)-, 1-(dihydrogen phosphate), diammonium salt | | | | | | x |
| 57678-03-2 | 8:2 monoPAP | 8:2 Fluorotelomer phosphate monoester | | | | x | | |
| | | 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, 1-(dihydrogen phosphate) | | | | | | |
| 678-41-1 | 8:2 diPAP | 8:2 Fluorotelomer phosphate diester | | | | x | | |
| | | 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, 1,1'-(hydrogen phosphate) | | | | | | |
| 93857-44-4 | | 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-, dihydrogen phosphate, diammonium salt | | | | x | | |
| 57678-05-4 | 10:2 monoPAP | 1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-, 1-(dihydrogen phosphate) | | | | | x | |
| 1895-26-7 | 10:2 diPAP | 1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-, 1,1'-(hydrogen phosphate) | | | | | x | |
| Fluorotelomer acrylates and methacrylates (FTACs and FTMACs) | | | | | | | | |
| 16083-78-6 | | 2-Propenoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,17,17,17-octacosafuoro-2-hydroxy-16-(trifluoromethyl)heptadecyl ester | | | | | | x |
| 4980-53-4 | 14:2 FTMAC | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuorohexadecyl ester | | | | | | x |
| 6014-75-1 | 12:2 FTMAC | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl ester | | | | | | x |
| 16083-87-7 | | 2-Propenoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafuoro-2-hydroxy-14-(trifluoromethyl)pentadecyl ester | | | | | | x |
| 52956-82-8 | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-tetracosafuoro-13-(trifluoromethyl)tetradecyl ester | | | | | | x |

| | | | (a) | (b) | (c) | | | |
|---|------------|--|------|------------|------------------------|-------------------|--------------------|--------------------|
| | | | PFOA | PFOA salts | PFOA-related compounds | | | |
| CAS No. | Acronym | Designation | | | (i) ¹ | (ii) ² | (iii) ³ | Other ⁴ |
| 74256-14-7 | | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-eicosafiuoro-11-(trifluoromethyl)dodecyl ester | | | | | | x |
| 74256-15-8 | | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-tetracosafiuoro-13-(trifluoromethyl)tetradecyl ester | | | | | | x |
| 17741-60-5 | 10:2 FTAC | 2-(Perfluorodecyl) ethyl acrylate | | | | | x | |
| | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafiuorododecyl ester | | | | | | |
| 2144-54-9 | 10:2 FTMAC | 2-(Perfluorodecyl) ethyl methacrylate | | | | | x | |
| | | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafiuorododecyl ester | | | | | | |
| 27905-45-9 | 8:2 FTAC | 8:2 Fluorotelomer acrylate | | | | x | | |
| | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester | | | | | | |
| 1996-88-9 | 8:2 FTMAC | 8:2 Fluorotelomer methacrylate | | | | x | | |
| | | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester | | | | | | |
| 85631-54-5 | FTACs | 2-Propenoic acid, γ - ω -perfluoro-C8-14-alkyl esters | | | | x | x | x |
| 91615-22-4 | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,16,16,16-octacosafiuoro-15-(trifluoromethyl)hexadecyl ester | | | | | | x |
| 94158-63-1 | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,18,18,18-dotriacontafiuoro-17-(trifluoromethyl)octadecyl ester | | | | | | x |
| 94158-64-2 | | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,16,16,16-octacosafiuoro-15-(trifluoromethyl)hexadecyl ester | | | | | | x |
| 94158-65-3 | | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,18,18,18-dotriacontafiuoro-17-(trifluoromethyl)octadecyl ester | | | | | | x |
| Other fluorotelomer-based non-polymers | | | | | | | | |
| 93776-12-6 | | 1-Propanaminium, <i>N</i> -(2-carboxyethyl)- <i>N,N</i> -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-pentacosafiuoro-2-hydroxypentadecyl) amino]-, inner salt | | | | | | x |
| 93776-13-7 | | 1-Propanaminium, <i>N</i> -(2-carboxyethyl)-3-[(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafiuoro-2-hydroxytridecyl)amino]- <i>N,N</i> -dimethyl-, inner salt | | | | | x | |
| 93776-15-9 | | 1-Propanaminium, <i>N</i> -(2-carboxyethyl)- <i>N,N</i> -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-tetracosafiuoro-2-hydroxy-14-(trifluoromethyl)pentadecyl]amino]-, inner salt | | | | | | |
| 94159-83-8 | | 2-Tridecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,13,13,13-eicosafiuoro-12-(trifluoromethyl)- | | | | | | x |
| 94159-79-2 | | 2-Pentadecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafiuoro- | | | | | | x |
| 94159-80-5 | | 2-Tridecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-heneicosafiuoro- | | | | | x | |

| | | | (a) | (b) | (c) | | | |
|-------------|---------|---|------|------------|------------------------|-------------------|--------------------|--------------------|
| | | | PFOA | PFOA salts | PFOA-related compounds | | | |
| CAS No. | Acronym | Designation | | | (i) ¹ | (ii) ² | (iii) ³ | Other ⁴ |
| 94159-82-7 | | 2-Pentadecanol, 1-[[3-(dimethylamino)propyl]amino]-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,15,15,15-tetracosafuoro-14-(trifluoromethyl)- | | | | | | x |
| 99955-83-6 | 8:2 FTS | 8:2 Fluorotelomer stearate monoester | | | | x | | |
| | | Octadecanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester | | | | | | |
| 302911-86-0 | | 8:2 Fluorotelomer citrate triester | | | | x | | |
| | | Pentanedioic acid, 3-[2-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]-2-oxoethyl]-3-hydroxy-, 1,5-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester | | | | | | |
| 3102-79-2 | | Perfluorooctylethyldichloromethyl silane | | | | x | | |
| 74612-30-9 | | Perfluorooctylethyldimethylchlorosilane | | | | x | | |
| 101947-16-4 | | Perfluorooctylethyltriethoxysilane | | | | x | | |
| 78560-44-8 | | Perfluorooctylethyltrichlorosilane | | | | x | | |
| 83048-65-1 | | Perfluorooctylethyltrimethoxysilane | | | | x | | |
| 68187-42-8 | | Propanamide, 3-[(γ-ω-perfluoro-C ₄₋₁₀ -alkyl)thio] derivatives | | | | x | | |
| 70969-47-0 | | Thiols, C ₈₋₂₀ , γ-ω-perfluoro, telomers with acrylamide | | | x | | | |
| 95370-51-7 | | Carbamic acid, [2-(sulphothio)ethyl]-, C-(γ-ω-perfluoro-C ₆₋₉ -alkyl) esters, monosodium salts | | | | | | x |
| 148240-85-1 | | 1,3-Propanediol, 2,2-bis[[γ-ω-perfluoro-C ₄₋₁₀ -alkyl)thio]methyl] derivatives, phosphates, ammonium salts | | | | x | | |
| 148240-87-3 | | 1,3-Propanediol, 2,2-bis[[γ-ω-perfluoro-C ₆₋₁₂ -alkyl)thio]methyl] derivatives, phosphates, ammonium salts | | | x | | | |
| 148240-89-5 | | 1,3-Propanediol, 2,2-bis[[γ-ω-perfluoro-C ₁₀₋₂₀ -alkyl)thio]methyl] derivs., phosphates, ammonium salts | | | | x | x | x |
| 183146-60-3 | | Oxirane, methyl-, polymer with oxirane, mono[2-hydroxy-3-[(γ-ω-perfluoro-C ₈₋₂₀ -alkyl)thio]propyl] ethers | | | x | | | |
| 71608-61-2 | | Pentanoic acid, 4,4-bis[(γ-ω-perfluoro-C ₈₋₂₀ -alkyl)thio]derivs., compds. with diethanolamine | | | | x | x | x |
| 94200-45-0 | | 1,2-Undecanediol, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-, 1-(dihydrogen phosphate), ammonium salt (1:2) | | | | x | | |
| 93776-00-2 | | 2-Pentadecanol, 1,1'-[oxybis[(1-methyl-2,1-ethanediyl)oxy]]bis[4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,15-pentacosafuoro- | | | | | | x |

| Fluorotelomer-based side-chain fluorinated polymers | | | | | | | | |
|---|-------|---|--|--|---|---|---|---|
| 115592-83-1 | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, hexadecyl 2-propenoate, N-(hydroxymethyl)-2-propenamide, octadecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-propenoate | | | x | x | x | x |
| 129783-45-5 | | 2-Propenoic acid, 2-methyl-, C10-16-alkyl esters, polymers with 2-hydroxyethyl methacrylate, Me methacrylate and γ - ω -perfluoro-C8-14-alkyl acrylate | | | x | x | x | x |
| 144031-01-6 | | 2-Propenoic acid, dodecyl ester, polymers with Bu (1-oxo-2-propenyl)carbamate and γ - ω -perfluoro-C8-14-alkyl acrylate | | | x | x | x | x |
| 116984-14-6 | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-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 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-tritriacontafuorooctadecyl 2-propenoate | | | x | | | |
| 74049-08-4 | PFOEA | Poly[2-(perfluorooctyl)ethyl acrylate] | | | x | x | | |
| | | 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester, homopolymer | | | | | | |
| 65104-45-2 | | 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-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 | x |
| 53515-73-4 | | 2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester, polymer with 2-propenoic acid | | | | | | x |
| Other substances | | | | | | | | |
| 90622-99-4 | | Amides, C7-19, α - ω -perfluoro-N,N-bis(hydroxyethyl) | | | | | | x |
| 71356-38-2 | | Piperazinium, 1-(carboxymethyl)-1-(2-hydroxyethyl)-4-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-nonadecafluoro-1-oxodecyl)-, inner salt | | | | | | x |
| 85681-64-7 | | 2-Propenoic acid, perfluoro-C8-16-alkyl esters | | | | | | x |
| 125328-29-2 | | 2-Propenoic acid, 2-methyl-, C10-16-alkyl esters, polymers with 2-hydroxyethylmethacrylate, Me methacrylate and perfluoro-C8-14-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 | | |
| 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- κ P]- | | | | x | | |

| | | | | | | | | | |
|------------|----------|--|--|--|--|--|--|--|---|
| 39186-68-0 | | 1-Propanaminium, N-(2-carboxyethyl)-N,N-bis(2-hydroxyethyl)-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, inner salt | | | | | | | x |
| 41358-63-8 | | Octanamide, N-[3-[bis(2-hydroxyethyl)amino]propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro- | | | | | | | x |
| 24216-05-5 | | Benzenesulfonyl chloride, 3,4-bis[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]- | | | | | | | x |
| 53517-98-9 | | 1-Propanaminium,N,N,N-trimethyl-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl) amino]-, chloride (1:1) | | | | | | | x |
| 85938-56-3 | | Octanamide, N-(3-aminopropyl)-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro- | | | | | | | x |
| 89685-61-0 | | 1-Propanesulfonic acid,3-[ethyl (2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-,sodium salt (1:1) | | | | | | | x |
| 84029-60-7 | | Nonene, heptadecafluoro-1-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)oxy]- | | | | | | | x |
| 4151-50-2 | N-EtFOSA | N-Ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonamide, N-Ethylperfluorooctane-1-sulfonamide | | | | | | | x |

Table 2: Non-exhaustive list of substances not covered by the risk management evaluation on PFOA, its salts and PFOA-related compounds

Note:

1. C₈F₁₇-X, where X= F, Cl, Br.
2. Fluoropolymers that are covered by CF₃[CF₂]_n-R', where R'=any group, n>16.
3. Perfluoroalkyl carboxylic and phosphonic acids (including their salts, esters, halides and anhydrides) with ≥ 8 perfluorinated carbons.
4. Perfluoroalkane sulfonic acids (including their salts, esters, halides and anhydrides) with ≥ 9 perfluorinated carbons.
5. PFOS, its salts and PFOSF as listed in Annex B to the Stockholm Convention.

| CAS No. | Acronym | Designation | Out of scope: compounds that do not degrade to PFOA | | | | | |
|---|-----------------------------------|--|---|-------------------|--------------------|-------------------|------------------|-------|
| | | | (i) ¹ | (ii) ² | (iii) ³ | (iv) ⁴ | (v) ⁵ | other |
| PFOA | | | | | | | | |
| Fluorotelomer alcohols | | | | | | | | |
| 647-42-7 | 6:2 FTOH | 6:2 Fluorotelomer alcohol | | | | | | x |
| | | 1-Octanol, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro- | | | | | | |
| Perfluoroalkyl phosphonic and phosphinic acids | | | | | | | | |
| 68412-68-0 | | Phosphonic acid, perfluoro-C6-12-alkyl derivs. | | | x | | | |
| Polyfluoroalkyl carboxylic acids | | | | | | | | |
| 1765-48-6 | | Undecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11- eicosafuoro- | | | | | | x |
| Perfluoroalkylcarboxylic acids other than PFOA, their isomers, and salts | | | | | | | | |
| 375-22-4 | PFBA | Perfluorobutanoic acid | | | | | | x |
| 307-24-4 | PFPeA | Perfluoropentanoic acid | | | | | | x |
| 357-24-4 | PFHxA | Perfluorohexanoic acid | | | | | | x |
| 375-85-9 | PFHpA | Perfluoroheptanoic acid | | | | | | x |
| 375-95-1 | C ₉ -PFCA or PFNA | Perfluorononan-1-oic acid | | | x | | | |
| 335-76-2 | C ₁₀ -PFCA or PFDA | Perfluorodecanoic acid | | | x | | | |
| 2058-94-8 | C ₁₁ -PFCA or PFUnA | Perfluoroundecanoic acid | | | x | | | |
| 307-55-1 | C ₁₂ -PFCA or PFDaA | Perfluorododecanoic acid | | | x | | | |
| 72629-94-8 | C ₁₃ -PFCA or PFTrA | Perfluorotridecanoic acid | | | x | | | |
| 376-06-7 | C ₁₄ -PFCA or PFTeA | Perfluorotetradecanoic acid | | | x | | | |
| 141074-63-7 | C ₁₅ -PFCA | Perfluoropentadecanoic acid | | | x | | | |
| 67905-19-5 | C ₁₆ -PFCA | Perfluorohexadecanoic acid | | | x | | | |
| 57475-95-3 | C ₁₇ -PFCA | Perfluoroheptadecanoic acid | | | x | | | |
| 16517-11-6 | C ₁₈ -PFCA | Perfluorooctadecanoic acid | | | x | | | |
| 133921-38-7 | C ₁₉ -PFCA | Perfluorononadecanoic acid | | | x | | | |
| 68310-12-3 | C ₂₀ -PFCA | Perfluoroeicosanoic acid | | | x | | | |
| 15811-52-6 | | Dodecanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12- docosafluoro-11-(trifluoromethyl)- | | | | | | x |
| 16486-96-7 | | Dodecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12- docosafluoro-11-(trifluoromethyl)- | | | x | | | |

| CAS No. | Acronym | Designation | Out of scope: compounds that do not degrade to PFOA | | | | | other |
|--|----------|---|---|-------------------|--------------------|-------------------|------------------|-------|
| | | | (i) ¹ | (ii) ² | (iii) ³ | (iv) ⁴ | (v) ⁵ | |
| 18024-09-4 | | Tetradecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-hexacosafuoro-13-(trifluoromethyl)- | | | x | | | |
| 68015-87-2 | | Dodecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,12,12,12-docosafuoro-11-(trifluoromethyl)-, compd. With ethanamine (1:1) | | | x | | | |
| 68025-62-7 | | Tetradecanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,14,14,14-hexacosafuoro-13-(trifluoromethyl)- | | | | | | x |
| 3108-42-7 | | Ammonium nonadecafluorodecanoate | | | x | | | |
| 3658-63-7 | | Decanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,10-octadecafluoro-9-(trifluoromethyl)-, ammonium salt (1:1) | | | x | | | |
| 3793-74-6 | | Ammonium tricosafuorododecanoate | | | x | | | |
| 307-71-1 | | Undecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,10,10,11,11-eicosafuoro-,potassium salt | | | x | | | |
| Perfluoroalkanesulfonic acids | | | | | | | | |
| 375-73-5 | PFBS | Perfluorobutane sulfonic acid | | | | | | x |
| 2706-91-4 | PFPeS | Perfluoropentane sulfonic acid | | | | | | x |
| 355-46-4 | PFHxS | Perfluorohexane sulfonic acid | | | | | | x |
| 375-92-8 | PFHpS | Perfluoroheptane sulfonic acid | | | | | | x |
| 1763-23-1 | PFOS (3) | Perfluorooctane sulfonic acid | | | | | x | |
| Per- and polyfluoroalkyl ether carboxylic acids | | | | | | | | |
| 1071817-33-8 | ADONA | Propanoic acid, 2,2,3,3-tetrafluoro-3-[1,1,2,2,3,3-hexafluoro-3- (trifluoromethoxy)propoxy]-, ammonium salt (1:1) | | | | | | x |
| 908020-52-0 | EEA-NH4 | Ammonium salt of perfluoro[(2-ethyloxy-ethoxy)acetic acid | | | | | | x |
| | | Acetic acid, 2,2-difluoro-2-[1,1,2,2-tetrafluoro-2-(1,1,2,2,2-pentafluoroethoxy)ethoxy]-, ammonium salt (1:1) | | | | | | |
| Fluoropolymers | | | | | | | | |
| 9002-84-0 | PTFE | Polytetrafluoroethylene | | x | | | | |
| 25067-11-2 | FEP | Fluorinated Ethylene Propylene Copolymer | | x | | | | |
| 26655-00-5, 31784-04-0 | PFA | Perfluoro Alkoxy Polymer | | x | | | | |
| 26425-79-6 | MFA | Perfluoro Methyl Alkoxy Polymer | | x | | | | |

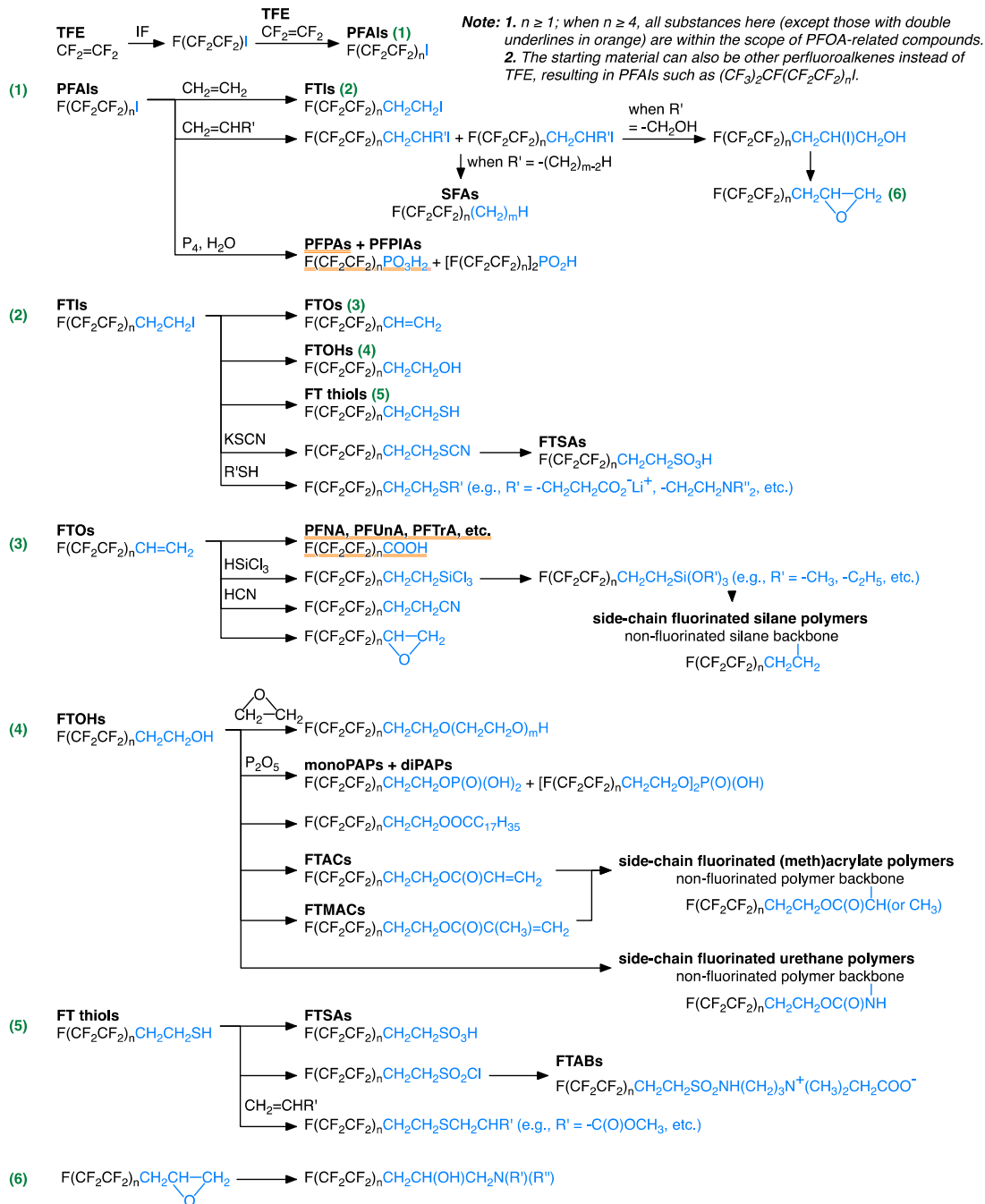


Figure. Major synthesis routes of fluorotelomer-based substances including side-chain fluorinated polymers. TFE = tetrafluoroethylene; PFAIs = perfluoroalkyl iodides; FTIs = fluorotelomer iodides; SFAs = semifluorinated alkanes; PFPAs = perfluoroalkyl phosphonic acids; PFPIAs = perfluoroalkyl phosphinic acids; FTOs = fluorotelomer olefins; FTOHs = fluorotelomer alcohols; FTSAs = fluorotelomer sulfonic acids; PFNA = perfluorononanoic acid; PFUnA = perfluoroundecanoic acid; PFTrA = perfluorotridecanoic acid; mono- & diPAPs = fluorotelomer phosphate mono- & di-esters; FT(M)ACs = fluorotelomer (meth)acrylates; FTABs = fluorotelomer sulfonamide betains

Figure 1: Major synthesis routes of fluorotelomer-based substances including side-chain fluorinated polymers (FOEN, 2017)