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SUPPLEMENTAL DATA

PERFLUOROALKYL AND POLYFLUORALKYL SUBSTANCES (PFASs) IN THE ENVIRONMENT: TERMINOLOGY, CLASSIFICATION, AND ORIGINS

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PART 1 – FAMILIES OF SUBSTANCES (NON-POLYMERS)

NAME OF FAMILY	FORMULA	ACRONYM
Perfluoroalkyl substances	Generic name: See main paper	PFASs
Perfluoroalkyl acids	Includes perfluoroalkyl carboxylic, sulfonic, sulfinic, phosphonic and phosphinic acids	PFAAs
Perfluoroalkyl carboxylic acids	$C_nF_{2n+1}COOH$	PFCAs
Perfluoroalkane sulfonic acids	$C_nF_{2n+1}SO_3H$	PFSAs
Perfluoroalkane sulfinic acids	$C_nF_{2n+1}SO_2H$	PFSIAs
Perfluoroalkyl phosphonic acids	$O=P(OH)_2C_nF_{2n+1}$	PFPAs
Perfluoroalkyl phosphinic acids	$O=P(OH)(C_nF_{2n+1})(C_mF_{2m+1})$	PFPIAs

NAME OF FAMILY	FORMULA	ACRONYM
Perfluoroalkyl iodides	$C_nF_{2n+1}I$	PFAIs
(n:2) Fluorotelomer iodides	$C_nF_{2n+1}CH_2CH_2I$	(n:2) FTIs
(n:2) Fluorotelomer olefins	$C_nF_{2n+1}CH=CH_2$	(n:2) FTOs
(n:2) Fluorotelomer alcohols	$C_nF_{2n+1}CH_2CH_2OH$	(n:2) FTOHs
(n:2) Fluorotelomer acrylates	$C_nF_{2n+1}CH_2CH_2OC(O)CH=CH_2$	(n:2) FTACs
(n:2) Fluorotelomer methacrylates	$C_nF_{2n+1}CH_2CH_2OC(O)C(CH_3)=CH_2$	(n:2) FTMACs

Polyfluoroalkyl phosphoric acid esters / Polyfluoroalkyl phosphates / (n:2) Fluorotelomer phosphates	$(O)P(OH)_{3-x}(OCH_2CH_2C_nF_{2n+1})_x$	PAPs
Polyfluoroalkyl phosphoric acid monoesters	$(O)P(OH)_2(OCH_2CH_2C_nF_{2n+1})$	monoPAPs
Polyfluoroalkyl phosphoric acid diesters	$(O)P(OH)(OCH_2CH_2C_nF_{2n+1})(OCH_2CH_2C_mF_{2m+1})$	diPAPs
Semi-fluorinated *n*-alkanes	$F(CF_2)_n(CH_2)_mH$	SFAs
Semi-fluorinated *n*-alkenes	$F(CF_2)_nCH=CH(CH_2)_{m-2}H$	SFAenes
(n:2) Fluorotelomer (saturated) aldehydes	$C_nF_{2n+1}CH_2CHO$	(n:2) FTALs
(n:2) Fluorotelomer unsaturated aldehydes	$C_{n-1}F_{2n-1}CF=CHCHO$	(n:2) FTUALs
Perfluoroalkyl aldehydes	$C_nF_{2n+1}CHO$	PFALs
Perfluoroalkyl aldehyde hydrates	$C_nF_{2n+1}CH(OH)_2$	PFAL.H_2Os
(n:2) Fluorotelomer (saturated) carboxylic acids	$C_nF_{2n+1}CH_2COOH$	(n:2) FTCAs
(n:2) Fluorotelomer unsaturated carboxylic acids	$C_{n-1}F_{2n-1}CF=CHCOOH$	(n:2) FTUCAs
[Biotransformation product of (n+1):2 FTOH]	$C_nF_{2n+1}CH_2CH_2COOH$	n:3 Acid
[Biotransformation product of (n+1):2 FTOH]	$C_nF_{2n+1}CH=CHCOOH$	n:3 UAcid
(n:2) Fluorotelomer sulfonic acids	$C_nF_{2n+1}CH_2CH_2SO_3H$	(n:2) FTSAs

NAME OF FAMILY	FORMULA	ACRONYM
Perfluoroalkane sulfonyl fluorides	$C_nF_{2n+1}SO_2F$	PASFs
Perfluoroalkane sulfonamides	$C_nF_{2n+1}SO_2NH_2$	FASAs
N-Methyl perfluoroalkane sulfonamides	$C_nF_{2n+1}SO_2NH(CH_3)$	MeFASAs
N-Ethyl perfluoroalkane sulfonamides	$C_nF_{2n+1}SO_2NH(C_2H_5)$	EtFASAs
N,*N*-Dialkyl perfluoroalkane sulfonamides	$C_nF_{2n+1}SO_2N(C_mH_{2m+1})(C_pH_{2p+1})$, with m, p = 1 or 2	Me_2FASAs, Et_2FASAs, MeEtFASAs
Perfluoroalkane sulfonamidoethanols	$C_nF_{2n+1}SO_2NHCH_2CH_2OH$	FASEs
Perfluoroalkane sulfonamidoacetic acids	$C_nF_{2n+1}SO_2NHCH_2COOH$	FASAAs
N-Methyl perfluoroalkane sulfonamidoethanols	$C_nF_{2n+1}SO_2N(CH_3)CH_2CH_2OH$	MeFASEs
N-Ethyl perfluoroalkane sulfonamidoethanols	$C_nF_{2n+1}SO_2N(C_2H_5)CH_2CH_2OH$	EtFASEs
N-Methyl perfluoroalkane sulfonamidoacetic acids	$C_nF_{2n+1}SO_2N(CH_3)CH_2COOH$	MeFASAAs
N-Ethyl perfluoroalkane sulfonamidoacetic acids	$C_nF_{2n+1}SO_2N(C_2H_5)CH_2COOH$	EtFASAAs
N-Methyl perfluoroalkane sulfonamidoethyl acrylates	$C_nF_{2n+1}SO_2N(CH_3)CH_2CH_2OC(O)CH=CH_2$	MeFASACs
N-Ethyl perfluoroalkane sulfonamidoethyl acrylates	$C_nF_{2n+1}SO_2N(C_2H_5)CH_2CH_2OC(O)CH=CH_2$	EtFASACs
N-Methyl perfluoroalkane sulfonamidoethyl methacrylates	$C_nF_{2n+1}SO_2N(CH_3)CH_2CH_2OC(O)C(CH_3)=CH_2$	MeFASMACs
N-Ethyl perfluoroalkane sulfonamidoethyl methacrylates	$C_nF_{2n+1}SO_2N(C_2H_5)CH_2CH_2OC(O)C(CH_3)=CH_2$	EtFASMACs

PART 2 – SELECTED INDIVIDUAL COMPOUNDS (NON-POLYMERS)

Perfluoroalkyl carboxylic acids (and selected salts)	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Trifluoroacetic acid	CF_3COOH	76-05-1	TFAA
Perfluoropropanoic acid	C_2F_5COOH	422-64-0	PFPrA
Perfluorobutanoic acid	C_3F_7COOH	375-22-4	PFBA
Ammonium perfluorobutanoate	$NH_4^+ C_3F_7COO^-$	10495-86-0	NH_4-PFBA
Sodium perfluorobutanoate	$Na^+ C_3F_7COO^-$	2218-54-4	Na-PFBA
Perfluoropentanoic acid	C_4F_9COOH	2706-90-3	PFPeA
Ammonium perfluoropentanoate	$NH_4^+ C_4F_9COO^-$	68259-11-0	NH_4-PFPeA
Perfluorohexanoic acid	$C_5F_{11}COOH$	307-24-4	PFHxA
Ammonium perfluorohexanoate	$NH_4^+ C_5F_{11}COO^-$	21615-47-4	NH_4-PFHxA
Sodium perfluorohexanoate	$Na^+ C_5F_{11}COO^-$	2923-26-4	Na-PFHxA
Perfluoroheptanoic acid	$C_6F_{13}COOH$	375-85-9	PFHpA
Ammonium perfluoroheptanoate	$NH_4^+ C_6F_{13}COO^-$	6130-43-4	NH_4-PFHpA
Sodium perfluoroheptanoate	$Na^+ C_6F_{13}COO^-$	20109-59-5	Na-PFHpA
Perfluorooctanoic acid	$C_7F_{15}COOH$	335-67-1	PFOA
Ammonium perfluorooctanoate	$NH_4^+ C_7F_{15}COO^-$	3825-26-1	APFO (or NH_4-PFOA)

Sodium perfluorooctanoate	$^{222}Na^+ C_7F_{15}COO^-$	335-95-5	Na-PFOA
Potassium perfluorooctanoate	$K^+ C_7F_{15}COO^-$	2395-00-8	K-PFOA
Perfluorononanoic acid	$C_8F_{17}COOH$	375-95-1	PFNA
Ammonium perfluorononanoate	$NH_4^+ C_8F_{17}COO^-$	4149-60-4	APFN (or NH_4-PFNA)
Sodium perfluorononanoate	$Na^+ C_8F_{17}COO^-$	21049-39-8	Na-PFNA
Perfluorodecanoic acid	$C_9F_{19}COOH$	335-76-2	PFDA
Ammonium perfluorodecanoate	$NH_4^+ C_9F_{19}COO^-$	3108-42-7	NH_4-PFDA
Perfluoroundecanoic acid	$C_{10}F_{21}COOH$	2058-94-8	PFUnDA
Ammonium perfluoroundecanoate	$NH_4^+ C_{10}F_{21}COO^-$	4234-23-5	NH_4-PFUnDA
Perfluorododecanoic acid	$C_{11}F_{23}COOH$	307-55-1	PFDoDA
Perfluorotridecanoic acid	$C_{12}F_{25}COOH$	72629-94-8	PFTrDA
Perfluorotetradecanoic acid	$C_{13}F_{27}COOH$	376-06-7	PFTeDA
Perfluoropentadecanoic acid	$C_{14}F_{29}COOH$	141074-63-7	PFPeDA
Perfluorohexadecanoic acid	$C_{15}F_{31}COOH$	67905-19-5	PFHxDA
Perfluoroheptadecanoic acid	$C_{16}F_{33}COOH$	57475-95-3	PFHpDA
Perfluorooctadecanoic acid	$C_{17}F_{35}COOH$	16517-11-6	PFODA
Perfluoroalkyl carboxylate anions	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Trifluoroacetate	CF_3COO^-	14477-72-6	TFA

Perfluoropropanoate	$C_2F_5COO^-$	44864-55-3	PFPrA
Perfluorobutanoate	$C_3F_7COO^-$	45048-62-2	PFBA
Perfluoropentanoate	$C_4F_9COO^-$	45167-47-3	PFPeA
Perfluorohexanoate	$C_5F_{11}COO^-$	92612-52-7	PFHxA
Perfluorohepanoate	$C_6F_{13}COO^-$	120885-29-2	PFHpA
Perfluorooctanoate	$C_7F_{15}COO^-$	45285-51-6	PFOA
Perfluorononanoate	$C_8F_{17}COO^-$	72007-68-2	PFNA
Perfluorodecanoate	$C_9F_{19}COO^-$	73829-36-4	PFDA
Perfluoroundecanoate	$C_{10}F_{21}COO^-$	196859-54-8	PFUnDA
Perfluorododecanoate	$C_{11}F_{23}COO^-$	171978-95-3	PFDoDA
Perfluorotridecanoate	$C_{12}F_{25}COO^-$	862374-87-6	PFTrDA
Perfluorotetradecanoate	$C_{13}F_{27}COO^-$	365971-87-5	PFTeDA
Perfluoropentadecanoate	$C_{14}F_{29}COO^-$	1214264-29-5	PFPeDA
Perfluorohexadecanoate	$C_{15}F_{31}COO^-$	1214264-30-8	PFHxDA
Perfluoroheptadecanoate	$C_{16}F_{33}COO^-$	None available	PFHpDA
Perfluorooctadecanoate	$C_{17}F_{35}COO^-$	798556-82-8	PFODA

Perfluoroalkane sulfonic acids (and selected anions and salts)	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Trifluoromethane sulfonic (or triflic) acid	CF_3SO_3H	1493-13-6	TFMS
Perfluoroethane sulfonic acid	$C_2F_5SO_3H$	354-88-1	PFEtS
Perfluoropropane sulfonic acid	$C_3F_7SO_3H$	423-41-6	PFPrS
Perfluorobutane sulfonic acid	$C_4F_9SO_3H$	375-73-5 or 59933-66-3	PFBS
Perfluorobutane sulfonate anion	$C_4F_9SO_3^-$	45187-15-3	PFBS
Potassium perfluorobutane sulfonate	$K^+ C_4F_9SO_3^-$	29420-49-3	K-PFBS
Perfluoropentane sulfonic acid	$C_5F_{11}SO_3H$	2706-91-4	PFPeS
Potassium perfluopentane sulfonate	$K^+ C_5F_{11}SO_3^-$	3872-25-1	K-PFPeS
Perfluorohexane sulfonic acid	$C_6F_{13}SO_3H$	355-46-4	PFHxS
Perfluorohexane sulfonate anion	$C_6F_{13}SO_3^-$	108427-53-8	PFHxS
Potassium perfluorohexane sulfonate	$K^+ C_6F_{13}SO_3^-$	3871-99-6	K-PFHxS
Perfluoroheptane sulfonic acid	$C_7F_{15}SO_3H$	375-92-8	PFHpS
Ammonium perfluoroheptane sulfonate	$NH_4^+ C_7F_{15}SO_3^-$	68259-07-4	NH_4-PFHpS
Potassium perfluoroheptane sulfonate	$K^+ C_7F_{15}SO_3^-$	60270-55-5	K-PFHpS
Perfluorooctane sulfonic acid	$C_8F_{17}SO_3H$	1763-23-1	PFOS
Perfluorooctane sulfonate anion	$C_8F_{17}SO_3^-$	45298-90-6	PFOS

Ammonium perfluorooctane sulfonate	$NH_4^+ C_8F_{17}SO_3^-$	29081-56-9	NH_4-PFOS
Sodium perfluorooctane sulfonate	$Na^+ C_8F_{17}SO_3^-$	4021-47-0	Na-PFOS
Potassium perfluorooctane sulfonate	$K^+ C_8F_{17}SO_3^-$	2795-39-3	K-PFOS
Lithium perfluorooctane sulfonate	$Li^+ C_8F_{17}SO_3^-$	29457-72-5	Li-PFOS
Tetraethylammonium perfluorooctane sulfonate	$N(C_2H_5)_4^+ C_8F_{17}SO_3^-$	56773-42-3	NEt_4-PFOS
Diethanolammonium perfluorooctane sulfonate	$NH_2(CH_2CH_2OH)_2^+ C_8F_{17}SO_3^-$	56773-42-3	
Perfluorononane sulfonic acid	$C_9F_{19}SO_3H$	474511-07-4	PFNS
Ammonium perfluorononane sulfonate	$NH_4^+ C_9F_{19}SO_3^-$	17202-41-4	NH_4-PFNS
Perfluorodecane sulfonic acid	$C_{10}F_{21}SO_3H$	335-77-3	PFDS
Perfluorodecane sulfonate anion	$C_{10}F_{21}SO_3^-$	126105-34-8	PFDS
Ammonium perfluorodecane sulfonate	$NH_4^+ C_{10}F_{21}SO_3^-$	67906-42-7	NH_4-PFDS
Potassium perfluorodecane sulfonate	$K^+ C_{10}F_{21}SO_3^-$	2806-16-8	K-PFDS
Perfluoroundecane sulfonic acid	$C_{11}F_{23}SO_3H$	749786-16-1	PFUnDS
Perfluorododecane sulfonic acid	$C_{12}F_{25}SO_3H$	79780-39-5	PFDoDS

Perfluoroalkane sulfinic acids	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluorooctane sulfinic acid	$C_8F_{17}SO_2H$	647-29-0	PFOSI

Perfluoroalkyl phosphonic acids	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluorohexyl phosphonic acid	$O=P(OH)_2C_6F_{13}$	40143-76-8	C6-PFPA
Perfluorooctyl phosphonic acid	$O=P(OH)_2C_8F_{17}$	40143-78-0	C8-PFPA
Perfluorodecyl phosphonic acid	$O=P(OH)_2C_{10}F_{21}$	52299-26-0	C10-PFPA

Perfluoroalkyl phosphinic acids	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Bis(perfluorohexyl) phosphinic acid	$O=P(OH)(C_6F_{13})_2$	40143-77-9	C6/C6-PFPIA
Bis(perfluorooctyl) phosphinic acid	$O=P(OH)(C_8F_{17})_2$	40143-79-1	C8/C8-PFPIA
Perfluoro(hexyloctyl) phosphinic acid	$O=P(OH)(C_6F_{13})(C_8F_{17})$	610800-34-5	C6/C8-PFPIA

Perfluoroalkyl iodides	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluoro (or pentafluoro)ethyl iodide	C_2F_5I	354-64-3	PFEI
Perfluorobutyl iodide	C_4F_9I	423-39-2	PFBI
Perfluorohexyl iodide	$C_6F_{13}I$	355-43-1	PFHxI
Perfluorooctyl iodide	$C_8F_{17}I$	507-63-1	PFOI
Perfluorodecyl iodide	$C_{10}F_{21}I$	423-62-1	PFDI

Perfluorododecyl iodide	$C_{12}F_{25}I$	307-60-8	PFDoDI
Perfluorotetradecyl iodide	$C_{14}F_{29}I$	307-63-1	PFTeDI
Perfluorohexadecyl iodide	$C_{16}F_{33}I$	355-50-0	PFHxDI
Perfluorooctadecyl iodide	$C_{18}F_{37}I$	29809-35-6	PFODI

(n:2) Fluorotelomer iodides	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer iodide	$C_4F_9CH_2CH_2I$	2043-55-2	4:2 FTI
6:2 Fluorotelomer iodide	$C_6F_{13}CH_2CH_2I$	2043-57-4	6:2 FTI
8:2 Fluorotelomer iodide	$C_8F_{17}CH_2CH_2I$	2043-53-0	8:2 FTI
10:2 Fluorotelomer iodide	$C_{10}F_{21}CH_2CH_2I$	2043-54-1	10:2 FTI
12:2 Fluorotelomer iodide	$C_{12}F_{25}CH_2CH_2I$	30046-31-2	12:2 FTI
14:2 Fluorotelomer iodide	$C_{14}F_{29}CH_2CH_2I$	65510-55-6	14:2 FTI
16:2 Fluorotelomer iodide	$C_{16}F_{33}CH_2CH_2I$	65150-94-9	16:2 FTI
18:2 Fluorotelomer iodide	$C_{18}F_{37}CH_2CH_2I$	65104-63-4	18:2 FTI

(n:2) Fluorotelomer olefins	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer olefin	$C_4F_9CH=CH_2$	19430-93-4	4:2 FTO
6:2 Fluorotelomer olefin	$C_6F_{13}CH=CH_2$	25291-17-2	6:2 FTO

8:2 Fluorotelomer olefin	$C_8F_{17}CH=CH_2$	21652-58-4	8:2 FTO
10:2 Fluorotelomer olefin	$C_{10}F_{21}CH=CH_2$	30389-25-4	10:2 FTO
12:2 Fluorotelomer olefin	$C_{12}F_{25}CH=CH_2$	67103-05-3	12:2 FTO

(n:2) Fluorotelomer alcohols	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2-Fluorotelomer alcohol	$C_4F_9CH_2CH_2OH$	2043-47-2	4:2 FTOH
6:2-Fluorotelomer alcohol	$C_6F_{13}CH_2CH_2OH$	647-42-7	6:2 FTOH
8:2-Fluorotelomer alcohol	$C_8F_{17}CH_2CH_2OH$	678-39-7	8:2 FTOH
10:2-Fluorotelomer alcohol	$C_{10}F_{21}CH_2CH_2OH$	865-86-1	10:2 FTOH
12:2 Fluorotelomer alcohol	$C_{12}F_{25}CH_2CH_2OH$	39239-77-5	12:2 FTOH
14:2 Fluorotelomer alcohol	$C_{14}F_{29}CH_2CH_2OH$	60699-51-6	14:2 FTOH
16:2 Fluorotelomer alcohol	$C_{16}F_{33}CH_2CH_2OH$	65104-67-8	16:2 FTOH
18:2 Fluorotelomer alcohol	$C_{18}F_{37}CH_2CH_2OH$	65104-65-6	18:2 FTOH

(n:2) Fluorotelomer acrylates	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer acrylate	$C_4F_9CH_2CH_2OC(O)CH=CH_2$	52591-27-2	4:2 FTAC
6:2 Fluorotelomer acrylate	$C_6F_{13}CH_2CH_2OC(O)CH=CH_2$	17527-29-6	6:2 FTAC
8:2 Fluorotelomer acrylate	$C_8F_{17}CH_2CH_2OC(O)CH=CH_2$	27905-45-9	8:2 FTAC

10:2 Fluorotelomer acrylate	$C_{10}F_{21}CH_2CH_2OC(O)CH=CH_2$	17741-60-5	10:2 FTAC
12:2 Fluorotelomer acrylate	$C_{12}F_{25}CH_2CH_2OC(O)CH=CH_2$	34395-24-9	12:2 FTAC
14:2 Fluorotelomer acrylate	$C_{14}F_{29}CH_2CH_2OC(O)CH=CH_2$	34362-49-7	14:2 FTAC
16:2 Fluorotelomer acrylate	$C_{16}F_{33}CH_2CH_2OC(O)CH=CH_2$	65150-93-8	16:2 FTAC
18:2 Fluorotelomer acrylate	$C_{18}F_{37}CH_2CH_2OC(O)CH=CH_2$	65104-64-5	18:2 FTAC

(n:2) Fluorotelomer methacrylates	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer methacrylate	$C_4F_9CH_2CH_2OC(O)C(CH_3)=CH_2$	1799-84-4	4:2 FTMAC
6:2 Fluorotelomer methacrylate	$C_6F_{13}CH_2CH_2OC(O)C(CH_3)=CH_2$	2144-53-8	6:2 FTMAC
8:2 Fluorotelomer methacrylate	$C_8F_{17}CH_2CH_2OC(O)C(CH_3)=CH_2$	1996-88-9	8:2 FTMAC
10:2 Fluorotelomer methacrylate	$C_{10}F_{21}CH_2CH_2OC(O)C(CH_3)=CH_2$	2144-54-9	10:2 FTMAC
12:2 Fluorotelomer methacrylate	$C_{12}F_{25}CH_2CH_2OC(O)C(CH_3)=CH_2$	6014-75-1	12:2 FTMAC
14:2 Fluorotelomer methacrylate	$C_{14}F_{29}CH_2CH_2OC(O)C(CH_3)=CH_2$	4980-53-4	14:2 FTMAC
16:2 Fluorotelomer methacrylate	$C_{16}F_{33}CH_2CH_2OC(O)C(CH_3)=CH_2$	59778-97-1	16:2 FTMAC
18:2 Fluorotelomer methacrylate	$C_{18}F_{37}CH_2CH_2OC(O)C(CH_3)=CH_2$	65104-66-7	18:2 FTMAC

Polyfluoroalkyl phosphoric acid monoesters **(= fluorotelomer phosphate monoesters)**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer phosphate monoester	$(O)P(OH)_2(OCH_2CH_2C_4F_9)$	150065-76-2	4:2 monoPAP
6:2 Fluorotelomer phosphate monoester	$(O)P(OH)_2(OCH_2CH_2C_6F_{13})$	57678-01-0	6:2 monoPAP
8:2 Fluorotelomer phosphate monoester	$(O)P(OH)_2(OCH_2CH_2C_8F_{17})$	57678-03-2	8:2 monoPAP
10:2 Fluorotelomer phosphate monoester	$(O)P(OH)_2(OCH_2CH_2C_{10}F_{21})$	57678-05-4	10:2 monoPAP
12:2 Fluorotelomer phosphate monoester	$(O)P(OH)_2(OCH_2CH_2C_{12}F_{25})$	57678-07-6	12:2 monoPAP
Polyfluoroalkyl phosphoric acid diesters **(= fluorotelomer phosphate diesters)**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_4F_9)_2$	135098-69-0	4:2 diPAP
4:2/6:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_4F_9)(OCH_2CH_2C_6F_{13})$	1158182-59-2	4:2/6:2 diPAP
6:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_6F_{13})_2$	57677-95-9	6:2 diPAP
6:2/8:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_6F_{13})(OCH_2CH_2C_8F_{17})$	943913-15-3	6:2/8:2 diPAP
8:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_8F_{17})_2$	678-41-1	8:2 diPAP
8:2/10:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_8F_{17})(OCH_2CH_2C_{10}F_{21})$	1158182-60-5	8:2/10:2 diPAP
10:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_{10}F_{21})_2$	1895-26-7	10:2 diPAP
10:2/12:2 Fluorotel. phosphate diester	$(O)P(OH)(OCH_2CH_2C_{10}F_{21})(OCH_2CH_2C_{12}F_{25})$	1158182-61-6	10:2/12:2 diPAP
12:2 Fluorotelomer phosphate diester	$(O)P(OH)(OCH_2CH_2C_{12}F_{25})_2$	57677-99-3	12:2 diPAP

Semifluorinated *n*-alkanes	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
(Perfluorooctyl)ethane	$F(CF_2)_8(CH_2)_2H$	77117-48-7	F_8H_2
(Perfluorohexyl)octane	$F(CF_2)_6(CH_2)_8H$	133331-77-8	F_6H_8
(Perfluorohexyl)hexadecane	$F(CF_2)_6(CH_2)_{16}H$	133310-71-1	F_6H_{16}
(Perfluorooctyl)hexadecane	$F(CF_2)_8(CH_2)_{16}H$	117146-18-6	F_8H_{16}
(Perfluorohexadecyl)hexadecane	$F(CF_2)_{16}(CH_2)_{16}H$	137338-42-2	$F_{16}H_{16}$

Semifluorinated *n*-alkenes	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
(Perfluorohexyl)hexadecene	$F(CF_2)_6CH=CH(CH_2)_{14}H$	1244062-15-4	F_6H_{16}ene
(Perfluorooctyl)hexadecene	$F(CF_2)_8CH=CH(CH_2)_{14}H$	1244062-16-5	F_8H_{16}ene
(Perfluorohexadecyl)hexadecene	$F(CF_2)_{16}CH=CH(CH_2)_{14}H$	1244062-14-3	$F_{16}H_{16}$ene

(n:2) Fluorotelomer (saturated) aldehydes	FORMULA	CAS REGISTRY NUMBER	ACRONYM
4:2 Fluorotelomer aldehyde	$C_4F_9CH_2CHO$	135984-67-7	4:2 FTAL
6:2 Fluorotelomer aldehyde	$C_6F_{13}CH_2CHO$	56734-81-7	6:2 FTAL
8:2 Fluorotelomer aldehyde	$C_8F_{17}CH_2CHO$	135984-68-8	8:2 FTAL
10:2 Fluorotelomer aldehyde	$C_{10}F_{21}CH_2CHO$	864551-38-2	10:2 FTAL
12:2 Fluorotelomer aldehyde	$C_{12}F_{25}CH_2CHO$	None available	12:2 FTAL

(n:2) Fluorotelomer unsaturated aldehydes	FORMULA	CAS REGISTRY NUMBER	ACRONYM
4:2 Fluorotelomer unsaturated aldehyde	$C_3F_7CF=CHCHO$	864551-39-3	4:2 FTUAL
6:2 Fluorotelomer unsaturated aldehyde	$C_5F_{11}CF=CHCHO$	69534-12-9	6:2 FTUAL
8:2 Fluorotelomer unsaturated aldehyde	$C_7F_{15}CF=CHCHO$	58544-13-1	8:2 FTUAL
10:2 Fluorotelomer unsaturated aldehyde	$C_9F_{19}CF=CHCHO$	864551-40-6	10:2 FTUAL
12:2 Fluorotelomer unsaturated aldehyde	$C_{11}F_{23}CF=CHCHO$	None available	12:2 FTUAL

Perfluoroalkyl aldehydes	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluoropentanal	C_4F_9CHO	375-53-1	PFPeAL
Perfluoroheptanal	$C_6F_{13}CHO$	63967-41-9	PFHpAL
Perfluorononanal	$C_8F_{17}CHO$	63967-40-8	PFNAL
Perfluorooctanal	$C_9F_{19}CHO$	335-60-4	PFOAL
Perfluoroundecanal	$C_{10}F_{21}CHO$	63967-42-0	PFUnDAL

Perfluoroalkyl aldehyde hydrates	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluoropentanal hydrate	$C_4F_9CH(OH)_2$	355-30-6	$PFPeAL.H_2O$
Perfluoroheptanal hydrate	$C_6F_{13}CH(OH)_2$	64739-16-8	$PFHpAL.H_2O$
Perfluorononanal hydrate	$C_8F_{17}CH(OH)_2$	191528-99-1	$PFNAL.H_2O$
Perfluoroundecanal hydrate	$C_{10}F_{21}CH(OH)_2$	None Available	$PFUnDAL.H_2O$

(n:2) Fluorotelomer (saturated) carboxylic acids	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
6:2 Fluorotelomer carboxylic acid	$C_6F_{13}CH_2COOH$	53826-12-3	6:2 FTCA
8:2 Fluorotelomer carboxylic acid	$C_8F_{17}CH_2COOH$	27854-31-5	8:2 FTCA
10:2 Fluorotelomer carboxylic acid	$C_{10}F_{21}CH_2COOH$	53826-13-4	10:2 FTCA
12:2 Fluorotelomer carboxylic acid	$C_{12}F_{25}CH_2COOH$	70887-93-3	12:2 FTCA

(n:2) Fluorotelomer unsaturated carboxylic acids	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
6:2 Fluorotelomer unsaturated carboxylic acid	$C_5F_{11}CF=CHCOOH$	70887-88-6	6:2 FTUCA
8:2 Fluorotelomer unsaturated carboxylic acid	$C_7F_{15}CF=CHCOOH$	70887-84-2	8:2 FTUCA
10:2 Fluorotelomer unsaturated carboxylic acid	$C_9F_{19}CF=CHCOOH$	70887-94-4	10:2 FTUCA
12:2 Fluorotelomer unsaturated carboxylic acid	$C_{11}F_{23}CF=CHCOOH$	70887-95-5	12:2 FTUCA

Other biotransformation products of n:2 FTOHs	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:3 Acid	$C_4F_9(CH_2)_2COOH$	80705-13-1	4:3 Acid
5:3 Acid	$C_5F_{11}(CH_2)_2COOH$	914637-49-3	5:3 Acid
6:3 Acid	$C_6F_{13}(CH_2)_2COOH$	27854-30-4	6:3 Acid
7:3 Acid	$C_7F_{15}(CH_2)_2COOH$	812-70-4	7:3 Acid
5:3 Unsaturated carboxylic acid	$C_5F_{11}CH=CHCOOH$	1869-04-1 875878-70-9 (E)	5:3 UAcid
7:3 Unsaturated carboxylic acid	$C_7F_{15}CH=CHCOOH$	755-03-3 56017-63-1 (E) 173441-56-0 (Z)	7:3 UAcid

(n:2) Fluorotelomer sulfonic acids	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer sulfonic acid	$C_4F_9CH_2CH_2SO_3H$	757124-72-4	4:2 FTSA
6:2 Fluorotelomer sulfonic acid	$C_6F_{13}CH_2CH_2SO_3H$	27619-97-2	6:2 FTSA
8:2 Fluorotelomer sulfonic acid	$C_8F_{17}CH_2CH_2SO_3H$	39108-34-4	8:2 FTSA
10:2 Fluorotelomer sulfonic acid	$C_{10}F_{21}CH_2CH_2SO_3H$	120226-60-0	10:2 FTSA

(n:2) Fluorotelomer sulfonate anions	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
4:2 Fluorotelomer sulfonate anion	$C_4F_9CH_2CH_2SO_3^-$	414911-30-1	4:2 FTSA
6:2 Fluorotelomer sulfonate anion	$C_6F_{13}CH_2CH_2SO_3^-$	425670-75-3	6:2 FTSA
8:2 Fluorotelomer sulfonate anion	$C_8F_{17}CH_2CH_2SO_3^-$	481071-78-7	8:2 FTSA
10:2 Fluorotelomer sulfonate anion	$C_{10}F_{21}CH_2CH_2SO_3^-$	None available	10:2 FTSA

Perfluoroalkane sulfonyl fluorides	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluorobutane sulfonyl fluoride	$C_4F_9SO_2F$	375-72-4	PBSF
Perfluoropentane sulfonyl fluoride	$C_5F_{11}SO_2F$	375-81-5	PPeSF
Perfluorohexane sulfonyl fluoride	$C_6F_{13}SO_2F$	423-50-7	PHxSF
Perfluoroheptane sulfonyl fluoride	$C_7F_{15}SO_2F$	335-71-7	PHpSF
Perfluorooctane sulfonyl fluoride	$C_8F_{17}SO_2F$	307-35-7	POSF
Perfluorononane sulfonyl fluoride	$C_9F_{19}SO_2F$	68259-06-3	PNSF
Perfluorodecane sulfonyl fluoride	$C_{10}F_{21}SO_2F$	307-51-7	PDSF

Perfluoroalkane sulfonamides	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluorobutane sulfonamide	$C_4F_9SO_2NH_2$	30334-69-1	FBSA
Perfluoropentane sulfonamide	$C_5F_{11}SO_2NH_2$	82765-76-2	FPeSA
Perfluorohexane sulfonamide	$C_6F_{13}SO_2NH_2$	41997-13-1	FHxSA
Perfluoroheptane sulfonamide	$C_7F_{15}SO_2NH_2$	82765-77-3	FHpSA
Perfluorooctane sulfonamide	$C_8F_{17}SO_2NH_2$	754-91-6	FOSA
***N*-Methyl perfluoroalkane sulfonamides**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Methyl perfluorobutane sulfonamide	$C_4F_9SO_2NH(CH_3)$	68298-12-4	MeFBSA
N-Methyl perfluoropentane sulfonamide	$C_5F_{11}SO_2NH(CH_3)$	68298-13-5	MeFPeSA
N-Methyl perfluorohexane sulfonamide	$C_6F_{13}SO_2NH(CH_3)$	68259-15-4	MeFHxSA
N-Methyl perfluoroheptane sulfonamide	$C_7F_{15}SO_2NH(CH_3)$	68259-14-3	MeFHpSA
N-Methyl perfluorooctane sulfonamide	$C_8F_{17}SO_2NH(CH_3)$	31506-32-8	MeFOSA
***N*-Ethyl perfluoroalkane sulfonamides**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Ethyl perfluorobutane sulfonamide	$C_4F_9SO_2NH(C_2H_5)$	40630-67-9	EtFBSA
N-Ethyl perfluoropentane sulfonamide	$C_5F_{11}SO_2NH(C_2H_5)$	162682-16-8	EtFPeSA
N-Ethyl perfluorohexane sulfonamide	$C_6F_{13}SO_2NH(C_2H_5)$	87988-56-5	EtFHxSA

N-Ethyl perfluoroheptane sulfonamide	$C_7F_{15}SO_2NH(C_2H_5)$	68957-62-0	EtFHpSA
N-Ethyl perfluorooctane sulfonamide	$C_8F_{17}SO_2NH(C_2H_5)$ (sulfluramid)	4151-50-2	EtFOSA
***N*,*N*-Dialkyl perfluoroalkane sulfonamides**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N,*N*-Dimethyl perfluorooctane sulfonamide	$C_8F_{17}SO_2N(CH_3)_2$	213181-78-3	Me_2FOSA
N,*N*-Diethyl perfluorooctane sulfonamide	$C_8F_{17}SO_2N(C_2H_5)_2$	87988-61-2	Et_2FOSA

Perfluoroalkane sulfonamido ethanols	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluorobutane sulfonamidoethanol	$C_4F_9SO_2NHCH_2CH_2OH$	34454-99-4	FBSE
Perfluoropentane sulfonamidoethanol	$C_5F_{11}SO_2NHCH_2CH_2OH$	None available	FPeSE
Perfluorohexane sulfonamidoethanol	$C_6F_{13}SO_2NHCH_2CH_2OH$	106443-63-4	FHxSE
Perfluoroheptane sulfonamidoethanol	$C_7F_{15}SO_2NHCH_2CH_2OH$	167398-54-1	FHpSE
Perfluorooctane sulfonamidoethanol	$C_8F_{17}SO_2NHCH_2CH_2OH$	10116-92-4	FOSE

Perfluoroalkane sulfonamidoacetic acids	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
Perfluorobutane sulfonamidoacetic acid	$C_4F_9SO_2NHCH_2COOH$	347872-22-4	FBSAA
Perfluoropentane sulfonamidoacetic acid	$C_5F_{11}SO_2NHCH_2COOH$	647-43-8	FPeSAA
Perfluorohexane sulfonamidoacetic acid	$C_6F_{2n+1}SO_2NHCH_2COOH$	1003193-99-4	FHxSAA
Perfluoroheptane sulfonamidoacetic acid	$C_7F_{15}SO_2NHCH_2COOH$	1003194-00-0	FHpSAA
Perfluorooctane sulfonamidoacetic acid	$C_8F_{17}SO_2NHCH_2COOH$	2806-24-8	FOSAA

***N*-Methyl perfluoroalkane sulfonamidoethanols**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Methyl perfluorobutane sulfonamidoethanol	$C_4F_9SO_2N(CH_3)CH_2CH_2OH$	34454-97-2	MeFBSE
N-Methyl perfluoropentane sulfonamidoethanol	$C_5F_{11}SO_2N(CH_3)CH_2CH_2OH$	68555-74-8	MeFPeSE
N-Methyl perfluorohexane sulfonamidoethanol	$C_6F_{13}SO_2N(CH_3)CH_2CH_2OH$	68555-75-9	MeFHxSE
N-Methyl perfluoroheptane sulfonamidoethanol	$C_7F_{15}SO_2N(CH_3)CH_2CH_2OH$	68555-76-0	MeFHpSE
N-Methyl perfluorooctane sulfonamidoethanol	$C_8F_{17}SO_2N(CH_3)CH_2CH_2OH$	24448-09-7	MeFOSE

***N*-Ethyl perfluoroalkane sulfonamidoethanols**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Ethyl perfluorobutane sulfonamidoethanol	$C_4F_9SO_2N(C_2H_5)CH_2CH_2OH$	34449-89-3	EtFBSE
N-Ethyl perfluoropentane sulfonamidoethanol	$C_5F_{11}SO_2N(C_2H_5)CH_2CH_2OH$	68555-72-6	EtFPeSE
N-Ethyl perfluorohexane sulfonamidoethanol	$C_6F_{13}SO_2N(C_2H_5)CH_2CH_2OH$	34455-03-3	EtFHxSE
N-Ethyl perfluoroheptane sulfonamidoethanol	$C_7F_{15}SO_2N(C_2H_5)CH_2CH_2OH$	68555-73-7	EtFHpSE
N-Ethyl perfluorooctane sulfonamidoethanol	$C_8F_{17}SO_2N(C_2H_5)CH_2CH_2OH$	1691-99-2	EtFOSE

***N*-Methyl perfluoroalkane sulfonamidoacetic acids and salts**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Methyl perfluorobutane sulfonamidoacetic acid	$C_4F_9SO_2N(CH_3)CH_2COOH$	159381-10-9	MeFBSAA
N-Methyl perfluorohexane sulfonamidoacetic acid	$C_6F_{13}SO_2N(CH_3)CH_2COOH$	715646-50-7	MeFHxSAA
N-Methyl perfluorooctane sulfonamidoacetic acid	$C_8F_{17}SO_2N(CH_3)CH_2COOH$	2355-31-9	MeFOSAA
Potassium *N*-methyl perfluorooctane sulfonamidoacetate	$K^+ C_8F_{17}SO_2N(CH_3)CH_2COO^-$	70281-93-5	K-MeFOSAA

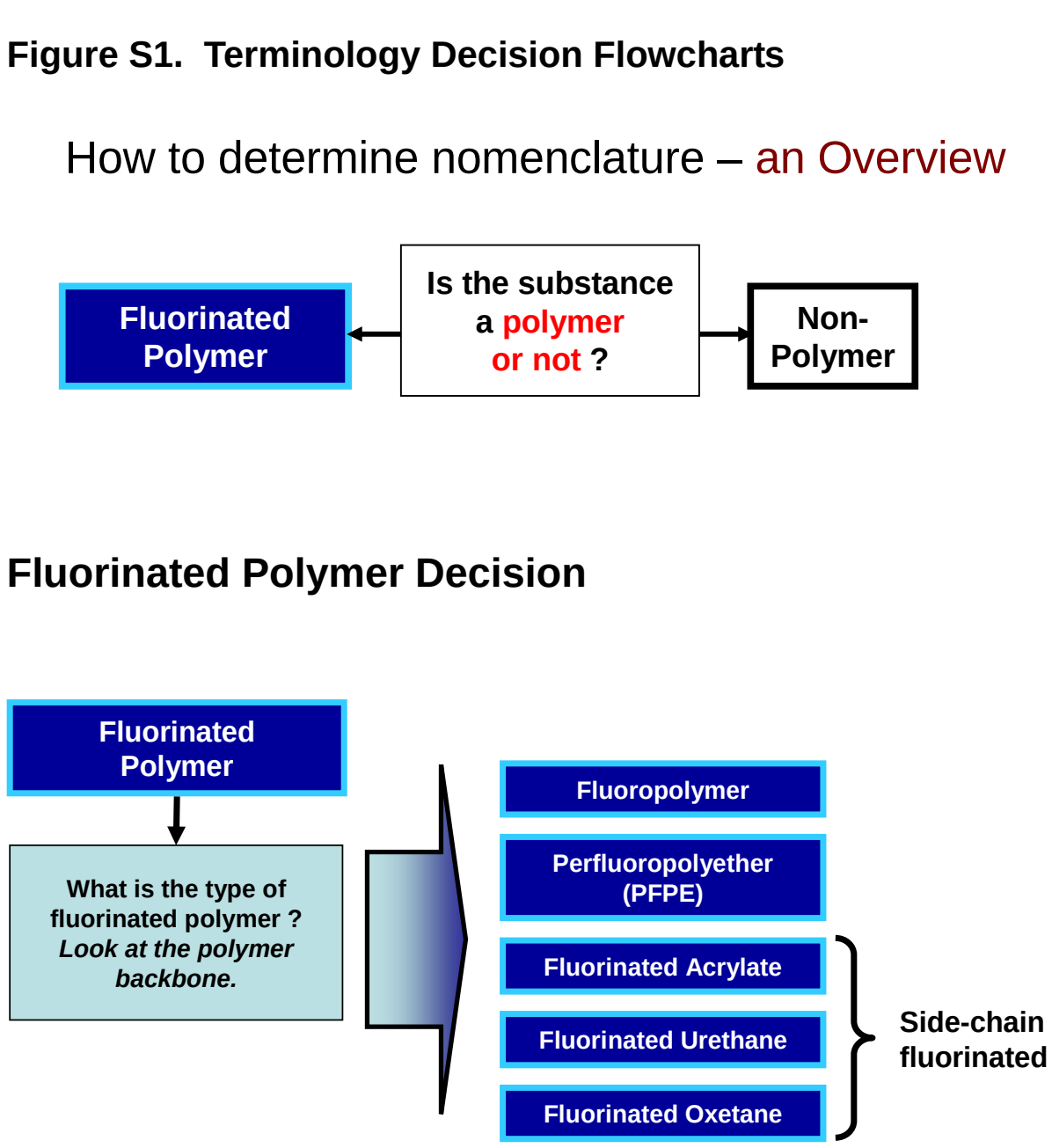
***N*-Ethyl perfluoroalkane sulfonamidoacetic acids and salts**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Ethyl perfluorobutane sulfonamidoacetic acid	$C_4F_9SO_2N(C_2H_5)CH_2COOH$	68957-33-5	EtFBSAA
N-Ethyl perfluoropentane sulfonamidoacetic acid	$C_5F_{11}SO_2N(C_2H_5)CH_2COOH$	68957-31-3	EtFPeSAA
N-Ethyl perfluorohexane sulfonamidoacetic acid	$C_6F_{13}SO_2N(C_2H_5)CH_2COOH$	68957-32-4	EtFHxSAA
N-Ethyl perfluoroheptane sulfonamidoacetic acid	$C_7F_{15}SO_2N(C_2H_5)CH_2COOH$	68957-63-1	EtFHpSAA
N-Ethyl perfluorooctane sulfonamidoacetic acid	$C_8F_{17}SO_2N(C_2H_5)CH_2COOH$	2991-50-6	EtFOSAA
Potassium *N*-ethyl perfluorooctane sulfonamidoacetate	$K^+ C_8F_{17}SO_2N(C_2H_5)CH_2COO^-$	2991-51-7	K-EtFOSAA

***N*-Methyl perfluoroalkane sulfonamidoethyl acrylates**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Methyl perfluorobutane sulfonamidoethyl acrylate	$C_4F_9SO_2N(CH_3)CH_2CH_2OC(O)CH=CH_2$	67584-55-8	MeFBSAC
N-Methyl perfluoropentane sulfonamidoethyl acrylate	$C_5F_{11}SO_2N(CH_3)CH_2CH_2OC(O)CH=CH_2$	67584-56-9	MeFPeSAC
N-Methyl perfluorohexane sulfonamidoethyl acrylate	$C_6F_{13}SO_2N(CH_3)CH_2CH_2OC(O)CH=CH_2$	67584-57-0	MeFHxSAC

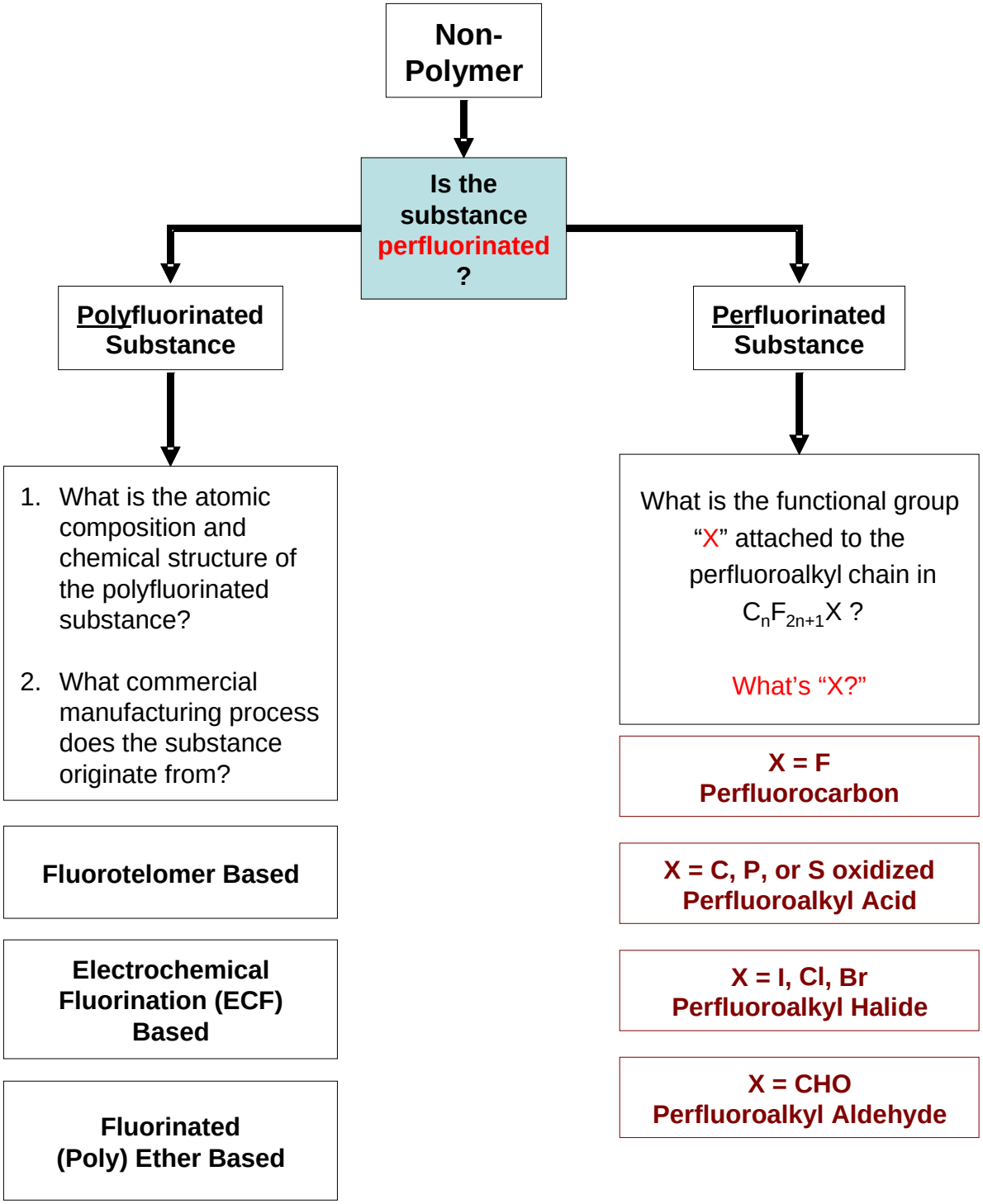
N-Methyl perfluoroheptane sulfonamidoethyl acrylate	$C_7F_{15}SO_2N(CH_3)CH_2CH_2OC(O)CH=CH_2$	68084-62-8	MeFHpSAC
N-Methyl perfluorooctane sulfonamidoethyl acrylate	$C_8F_{17}SO_2N(CH_3)CH_2CH_2OC(O)CH=CH_2$	25268-77-3	MeFOSAC
N-Ethyl perfluoroalkane sulfonamidoethyl acrylates	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Ethyl perfluorobutane sulfonamidoethyl acrylate	$C_4F_9SO_2N(C_2H_5)CH_2CH_2OC(O)CH=CH_2$	17329-79-2	EtFBSAC
N-Ethyl perfluoropentane sulfonamidoethyl acrylate	$C_5F_{11}SO_2N(C_2H_5)CH_2CH_2OC(O)CH=CH_2$	68298-06-6	EtFPeSAC
N-Ethyl perfluorohexane sulfonamidoethyl acrylate	$C_6F_{13}SO_2N(C_2H_5)CH_2CH_2OC(O)CH=CH_2$	1893-52-3	EtFHxSAC
N-Ethyl perfluoroheptane sulfonamidoethyl acrylate	$C_7F_{15}SO_2N(C_2H_5)CH_2CH_2OC(O)CH=CH_2$	59071-10-2	EtFHpSAC
N-Ethyl perfluorooctane sulfonamidoethyl acrylate	$C_8F_{17}SO_2N(C_2H_5)CH_2CH_2OC(O)CH=CH_2$	423-82-5	EtFOSAC
***N*-Methyl perfluoroalkane sulfonamidoethyl methacrylates**	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Methyl perfluorobutane sulfonamidoethyl methacrylate	$C_4F_9SO_2N(CH_3)CH_2CH_2OC(O)C(CH_3)=CH_2$	67584-59-2	MeFBSMAC
N-Methyl perfluoropentane sulfonamidoethyl methacrylate	$C_5F_{11}SO_2N(CH_3)CH_2CH_2OC(O)C(CH_3)=CH_2$	67584-60-5	MeFPeSMAC
N-Methyl perfluorohexane sulfonamidoethyl methacrylate	$C_6F_{13}SO_2N(CH_3)CH_2CH_2OC(O)C(CH_3)=CH_2$	67584-61-6	MeFHxSMAC

N-Methyl perfluoroheptane sulfonamidoethyl methacrylate	$C_7F_{15}SO_2N(CH_3)CH_2CH_2OC(O)C(CH_3)=CH_2$	67939-96-2	MeFHpSMAC
N-Methyl perfluorooctane sulfonamidoethyl methacrylate	$C_8F_{17}SO_2N(CH_3)CH_2CH_2OC(O)C(CH_3)=CH_2$	14650-24-9	MeFOSMAC
N-Ethyl perfluoroalkane sulfonamidoethyl methacrylates	**FORMULA**	**CAS REGISTRY NUMBER**	**ACRONYM**
N-Ethyl perfluorobutane sulfonamidoethyl methacrylate	$C_4F_9SO_2N(C_2H_5)CH_2CH_2OC(O)C(CH_3)=CH_2$	67939-33-7	EtFBSMAC
N-Ethyl perfluoropentane sulfonamidoethyl methacrylate	$C_5F_{11}SO_2N(C_2H_5)CH_2CH_2OC(O)C(CH_3)=CH_2$	67906-73-4	EtFPeSMAC
N-Ethyl perfluorohexane sulfonamidoethyl methacrylate	$C_6F_{13}SO_2N(C_2H_5)CH_2CH_2OC(O)C(CH_3)=CH_2$	67906-70-1	EtFHxSMAC
N-Ethyl perfluoroheptane sulfonamidoethyl methacrylate	$C_7F_{15}SO_2N(C_2H_5)CH_2CH_2OC(O)C(CH_3)=CH_2$	67939-36-0	EtFHpSMAC
N-Ethyl perfluorooctane sulfonamidoethyl methacrylate	$C_8F_{17}SO_2N(C_2H_5)CH_2CH_2OC(O)C(CH_3)=CH_2$	376-14-7	EtFOSMAC

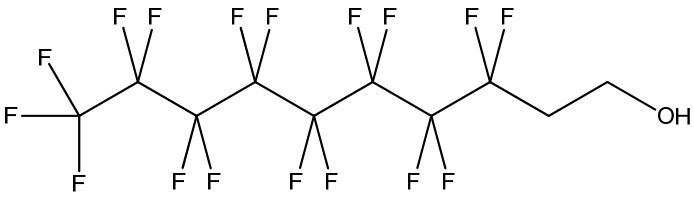
Figure S1. Terminology Decision Flowcharts



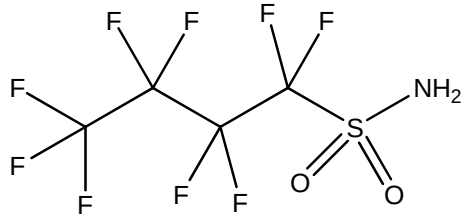
Non-Polymer Decision Tree



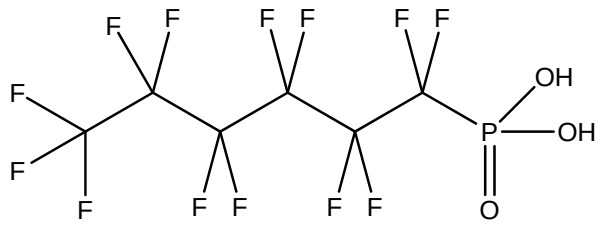
Example #1 8:2 Fluorotelomer alcohol

Substance Chemical Structure	Question	Conclusion
$F(CF_2)_8CH_2CH_2OH$ 	**Polymer or Non-Polymer?**	**Non-Polymer**
$F(CF_2)_8$ CH_2CH_2OH	**Perfluorinated?** *No. The substance has a perfluoroalkyl chain, $F(CF_2)_8$-, but all hydrogen on carbons are not replaced with fluorine*	**Poly-fluorinated**
$F(CF_2)_8$**CH_2CH_2**OH	**Process Origin?** *Perfluoroalkyl chain with an ethylene spacer (-CH_2CH_2-). Fluorotelomer origin*	**Fluoro-telomer origin**
$F(CF_2)_8CH_2CH_2$**OH**	**Functionality** *Alcohol*	**Fluoro-telomer Alcohol (FTOH)**
$F(CF_2)_8CH_2CH_2OH$	*Eight fluorinated carbons, two non-fluorinated carbons, therefore 8:2*	**8:2 Fluoro-telomer Alcohol (8:2 FTOH)**

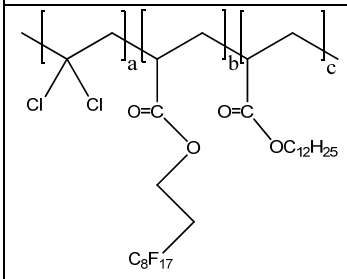
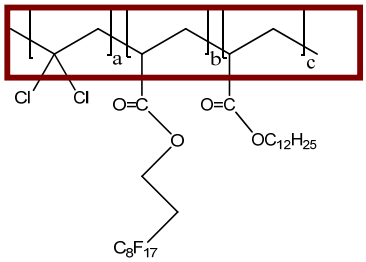
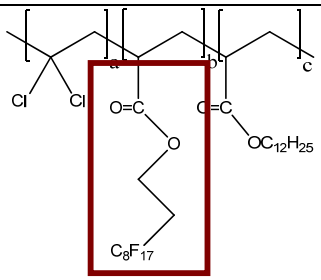
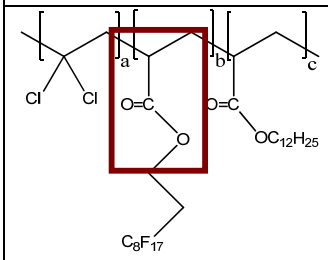
Example #2 Perfluorobutane sulfonamide

Substance Chemical Structure	Question	Conclusion
$F(CF_2)_4SO_2NH_2$  	**Polymer or Non-Polymer?**	**Non-Polymer**
$F(CF_2)_4SO_2NH_2$	**Perfluorinated?** *Yes. All hydrogens on all four carbons are replaced with fluorine. Perfluorobutyl*	**Perfluorinated**
$F(CF_2)_4SO_2NH_2$	**Perfluoroalkyl Acid?** *No. Has no acid functionality*	
$F(CF_2)_4SO_2NH_2$	**Process Origin?** *Perfluoroalkyl chain with a sulfone, -SO_2-, spacer. Electrochemical fluorination (ECF) origin*	**ECF origin**
$F(CF_2)_4SO_2NH_2$	**Functionality** *Sulfonamide*	**Perfluorobutane-sulfonamide (FBSA)**

Example #3 Perfluorohexyl phosphonic acid

Substance Chemical Structure	Question	Conclusion
$F(CF_2)_6P(=O)(OH)_2$  	**Polymer or Non-Polymer?**	**Non-Polymer**
$F(CF_2)_6P(=O)(OH)_2$	**Perfluorinated?** *Yes. All hydrogens on all six carbons are replaced with fluorine. Perfluorohexyl*	**Perfluorinated**
$F(CF_2)_6P(=O)(OH)_2$	**Perfluoroalkyl Acid?** *Yes. Phosphonic, $-P(=O)(OH)_2$, acid*	**Perfluoroalkyl acid**
$F(CF_2)_6P(=O)(OH)_2$		**Perfluorohexyl phosphonic acid (C6-PFPA)**

Example #4 Side-chain Fluorinated Acrylate Polymer (Fluorotelomer origin)

Substance Chemical Structure	Question	Conclusion
	**Polymer or Non-Polymer?**	**Polymer**
	**Fluoropolymer?** *No. The polymer backbone contains no fluorine bound to carbon.*	
	**Side-chain fluorinated?** *Yes*	**Side-chain fluorinated polymer**
	**Polymer Type?** *Acrylate*	**Side-chain fluorinated acrylate polymer**