Uitbreiding PFAS-lijst WAC/IV/A/025

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Werkgroep Water (OR) – 28/11/2023

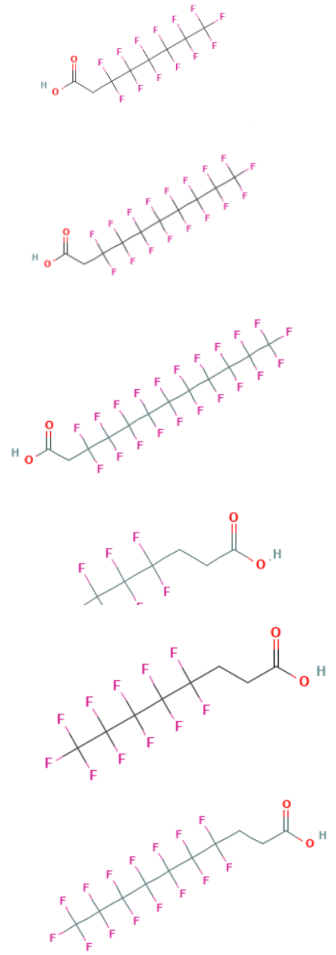
vito

vito.be

Uitbreiding WAC/IV/A/025

PFAS klassen en componenten

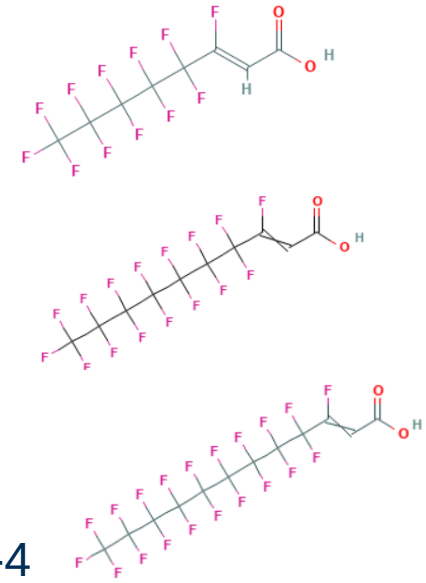
- Fluorotelomeer carboxylzuren (FTCA)
  - 2-perfluorohexyl ethanoic acid (6:2) 6:2 FTCA - CAS 53826-12-3
  - 2-perfluorooctyl ethanoic acid (8:2) – 8:2 FTCA – CAS 27854-31-5
  - 2-perfluorodecyl ethanoic acid (10:2) – 10:2 FTCA – CAS 53826-13-4
  - 2-perfluoropropyl propanoic acid (3:3) – 3:3 FTCA – CAS 356-02-5
  - 2-perfluoropentyl propanoic acid (5:3) – 5:3 FTCA – CAS 914637-49-3
  - 2-perfluoroheptyl propanoic acid (7:3) – 7:3 FTCA – CAS 812-70-4



Uitbreiding WAC/IV/A/025

PFAS klassen en componenten

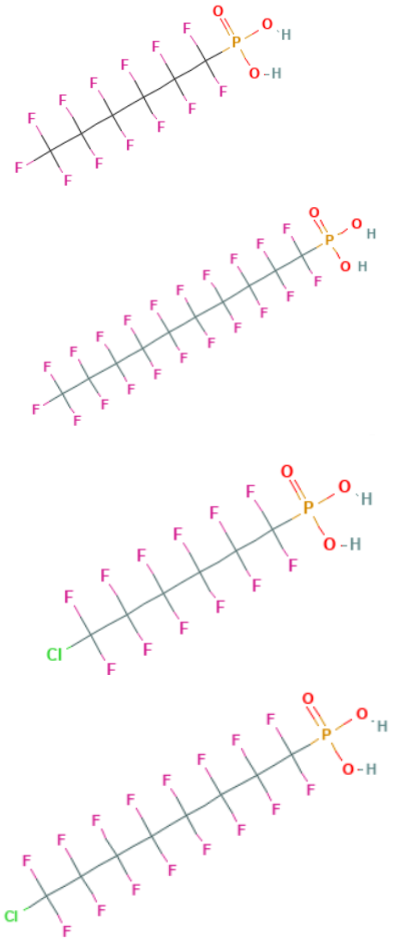
- Onverzadigde fluorotelomeer carboxylzuren (FTUCA)
  - 2H-Perfluor-2-octanoic acid (6:2) – 6:2 FTUCA – CAS 161094-75-3
  - 2H-Perfluoro-2-decanoic acid (8:2) – 8:2 FTUCA – CAS 70887-84-2
  - 2H-Perfluoro-2-dodecenoic acid (10:2) – 10:2 FTUCA – CAS 70887-94-4



Uitbreiding WAC/IV/A/025

PFAS klassen en componenten

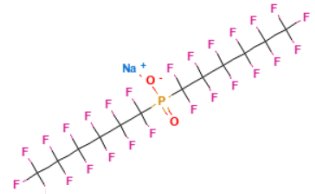
- Perfluoroalkylphosponic acids (PFAPA)
  - Perlfuorohexylphosphonic acid – PFHPA – CAS 40143-76-8
  - Perlfuorooctylphosphonic acid – PFOPA
  - Perlfuorodecylphosphonic acid - PFDPA – CAS 52299-26-0
  - 6-Chloroperlfuorohexylphosphonic acid- Cl-PFHxPA – CAS 1283087-54
  - 8-Chloroperfluorooctylphosphonic acid - Cl-PFOPA – CAS 2252239-09

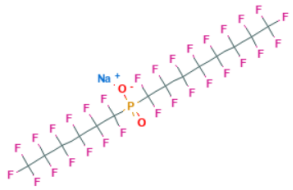


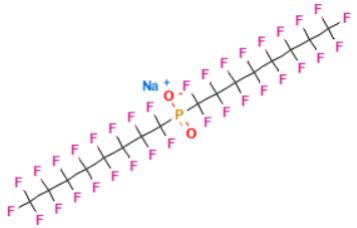
Uitbreiding WAC/IV/A/025

PFAS klassen en componenten

- Perfluoroalkyl phosphinic acids (x:x PFPi)
  - Sodium bis(perfluorohexyl)phosphinate – 6:6 PFPi – CAS 70609-44-8
  - Sodium perfluorohexylperfluorooctylphosphinate – 6:8 PFPi – CAS 2361298-14-
  - Sodium bis(perfluorooctyl)phosphinate – 8:8 PFPi – CAS 500776-69-2



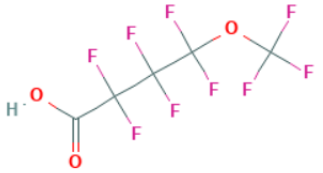




Uitbreiding WAC/IV/A/025

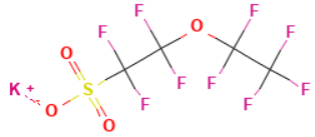
PFAS klassen en componenten

- Perfluoroalkyl ether carboxylic acids (PFECA)
  - Perfluoro-4-oxapentanoic acid – PFMPA – CAS 863090-89-5



  - Perfluoro-5-oxahexanoic acid – PFMBA
  - Perfluoro-3,6-dioxaheptanoic acid – NFDHA – CAS 151772-58-6

  - Potassium perfluoro(2-ethoxyethane)sulfate – PFEESA - CAS 117205-07-9



Uitbreiding WAC/IV/A/025

PFAS klassen en componenten

- 6:2 fluorotelomer sulfonamide alkylbetaine – 6:2 FTAB – CAS 34455-29-3

Uitbreiding WAC/IV/A/025

- Validatie is lopende
- Eerste resultaten – recoveries van gedopeerde stalen

	IS-PFNA	IS-PFDA	IS-PFOSA	IS-FHEA	IS-FOEA	IS-FDEA	IS-PFPeA	IS-PFHpA	IS-PFNA	IS-FHUEA	IS-FOUEA	IS-FDUEA
	P37DMOA (br-PFDA) (IS-PFNA)	P37DMOA (br-PFDA) (IS-PFDA)	6:2FTAB	FHEA	FOEA	FDEA	FPrPA	FPePA	FHpPA	FHUEA	FOUEA	FDUEA
LOQ_DW/GW_L_dag1	103%	102%	78%	93%	105%	129%	98%	89%	88%	109%	110%	108%
LOQ_OW_L_dag1	105%	106%	124%	129%	101%	114%	83%	67%	57%	109%	107%	102%
LOQ_AW_L_dag1	115%	125%	74%	79%	107%	176%	112%	94%	83%	109%	109%	110%
LOQ_DW/GW_M_dag1	104%	97%	121%	104%	105%	116%	103%	98%	97%	108%	107%	106%
LOQ_OW_M_dag1	107%	103%	112%	115%	108%	111%	99%	93%	91%	111%	109%	109%
LOQ_AW_M_dag1	96%	96%	111%	114%	103%	103%	102%	102%	105%	106%	104%	106%
LOQ_DW/GW_H_dag1	110%	99%	150%	108%	105%	115%	67%	61%	60%	107%	107%	108%
LOQ_OW_H_dag1	109%	102%	140%	110%	107%	95%	71%	56%	50%	107%	110%	107%
LOQ_AW_H_dag1	107%	102%	104%	114%	111%	116%	102%	104%	105%	109%	109%	107%
REPROD_DW/GW_L_dag1	114%	109%	108%	107%	114%	132%	97%	95%	103%	107%	108%	105%
REPROD_OW_L_dag1	106%	101%	102%	117%	103%	113%	99%	97%	99%	107%	107%	106%
REPROD_AW_L_dag1	109%	104%	108%	109%	103%	117%	99%	100%	104%	108%	109%	108%
REPROD_DW/GW_H_dag1	107%	99%	112%	105%	103%	130%	84%	82%	86%	105%	106%	109%
REPROD_OW_H_dag1	108%	101%	107%	111%	107%	109%	109%	102%	107%	107%	108%	107%
REPROD_AW_H_dag1	106%	102%	109%	103%	104%	131%	104%	101%	105%	108%	107%	108%

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- Validatie is lopende
- Eerste resultaten – recoveries van gedopeerde stalen

IS-PFHxA	IS-PFHxA	IS-PFBS	IS-Cl-PFHxPA	IS-Cl-PFOPA	IS-Cl-PFOPA	IS-6:2 diPAP	IS-6:2 diPAP	IS-8:2 diPAP
3,6-OPFHpA (295)	3,6-OPFHpA (201)	PFEESA	PFHxPA	PFOPA	PFDPA	6:6 PFPi	6:8 PFPi	8:8 PFPi
109%	107%	100%	103%	124%	131%	121%	126%	41%
111%	106%	94%	117%	102%	124%	132%	150%	52%
117%	113%	104%	114%	107%	111%	139%	147%	59%
93%	106%	105%	108%	116%	115%	103%	104%	43%
96%	108%	105%	121%	112%	102%	120%	123%	48%
102%	105%	103%	106%	94%	105%	110%	103%	75%
97%	103%	108%	105%	108%	102%	106%	109%	46%
104%	106%	103%	116%	113%	111%	120%	122%	52%
104%	109%	104%	105%	119%	98%	106%	107%	65%
93%	108%	108%	111%	124%	118%	108%	108%	38%
96%	107%	102%	113%	117%	112%	121%	121%	48%
102%	107%	107%	104%	109%	104%	119%	116%	59%
102%	104%	104%	104%	110%	97%	106%	111%	41%
100%	101%	103%	116%	106%	104%	122%	128%	54%
100%	104%	102%	111%	103%	94%	113%	116%	88%

Uitbreiding WAC/IV/A/025

- Uitbreiding van toepassingsgebied WAC/IV/A/025
- Nieuwe WAC procedures per PFAS Klassen?
  - Fosfinaten en fosfonaten
  - Verzadigde en onverzadigde fluorotelomeer carboxylzuren
  - Perfluoroalkyl ether carboxylzuren
- Proefronde en erkenning