



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport

PFAS in the Netherlands

new challenges and
developments for risk
assessment

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History

- About five years ago PFAS attention gained momentum in NL
 - Article in news magazine
 - › Could Dutch situation be similar?
 - › Public awareness
 - Parliamentary questions
 - PFAS in drinking water
 - › PFOA, HFPO-DA
 - Triggered research
 - › Occurrence and hazard
 - Regulatory actions followed
 - › HFPO-DA on CoRAP
 - › Permits revisited





Research into HFPO-DA and other PFAS

- Occurrence
 - Water and soil
- Sources
 - Teflon production
 - Product processing
 - Waste processing
- Local risk assessments
 - Drinking water
 - › Current state
 - › Past and future distribution
 - Kitchen gardens
 - Dairy products
 - Swimming





Substance Evaluation HFPO-DA

- HFPO-DA on CoRAP list for 2017
 - Together with Germany
- Concern for PBT/vPvB and wide dispersive use
 - PFOA identified as PBT in 2013
 - Similar use and structure
- Information requested
 - Carcinogenicity study
 - Human toxicological half-life
- Decision in February 2019
 - SEv long process
 - Board of Appeal
 - No information yet
 - › February 2021 ->





SVHC identification of HFPO-DA

- Discussion in ECHA PBT expert group on PMT (2017)
 - Combination of Persistent, Mobile and Toxic
 - Substance of Very High Concern (SVHC)?
 - › Cat 57f equivalent level of concern (ELoC)
 - › Short-chain PFAS as potential PMTs
 - PFHxA (DE)
 - › Applicable to HFPO-DA?
 - Support of Ministry
- Preparation of SVHC dossier started in 2018
- SVHC dossier adopted in June 2019
 - First PMT as ELoC
- Followed by PFBS, restriction dossier PFHxA in preparation

Annex XV report

**PROPOSAL FOR IDENTIFICATION OF A SUBSTANCE
OF VERY HIGH CONCERN ON THE BASIS OF THE
CRITERIA SET OUT IN REACH ARTICLE 57**

Substance Name(s): 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)

EC Number(s): -

CAS number(s): -

Submitted by: The Netherlands

Date: March 2019



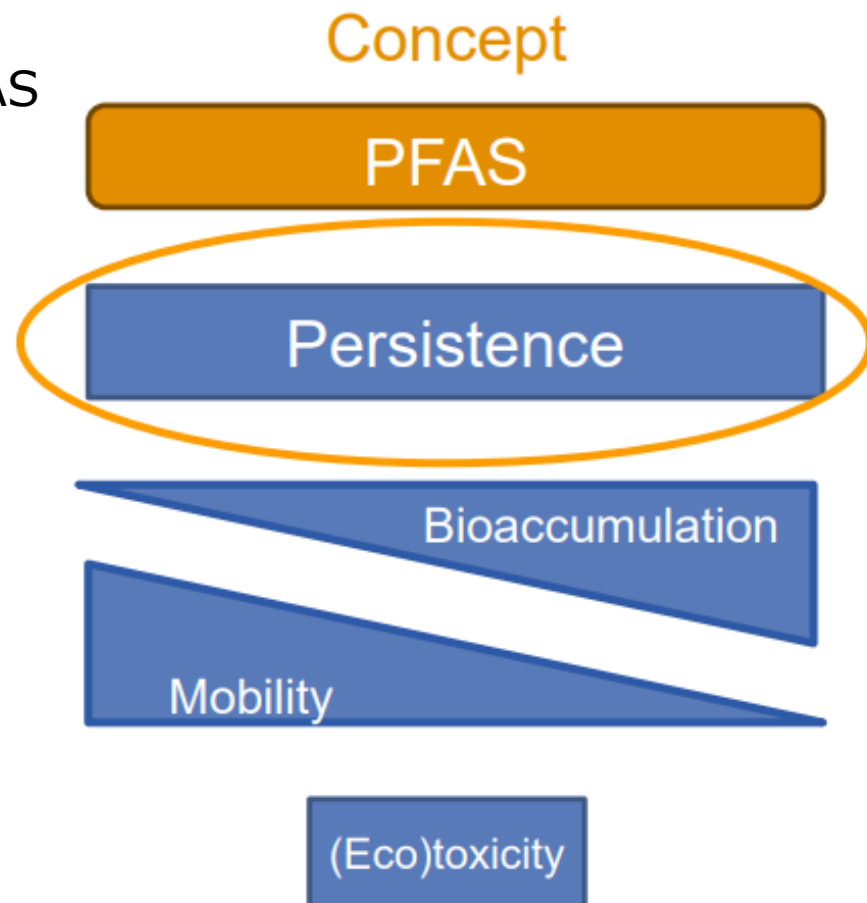
PMT as hazard classification

- UBA proposal for identification
- Intention of European Commission for classification as SVHC
- Programme in NL for screening PMTs
 - Screening on substance properties
 - Occurrence in surface water for drinking water abstraction
 - › Cooperation with drinking water companies



Preparation of broad restriction of PFAS

- Many PFAS
- Substitution of old PFAS by new PFAS
- Focus on the whole group of PFAS
- Preparation of restriction dossier
 - Netherlands with Denmark, Germany, Norway, Sweden and ECHA
- Concerns: very high persistence in combination with bioaccumulation, mobility and toxicity





Risk assessment and quality standards

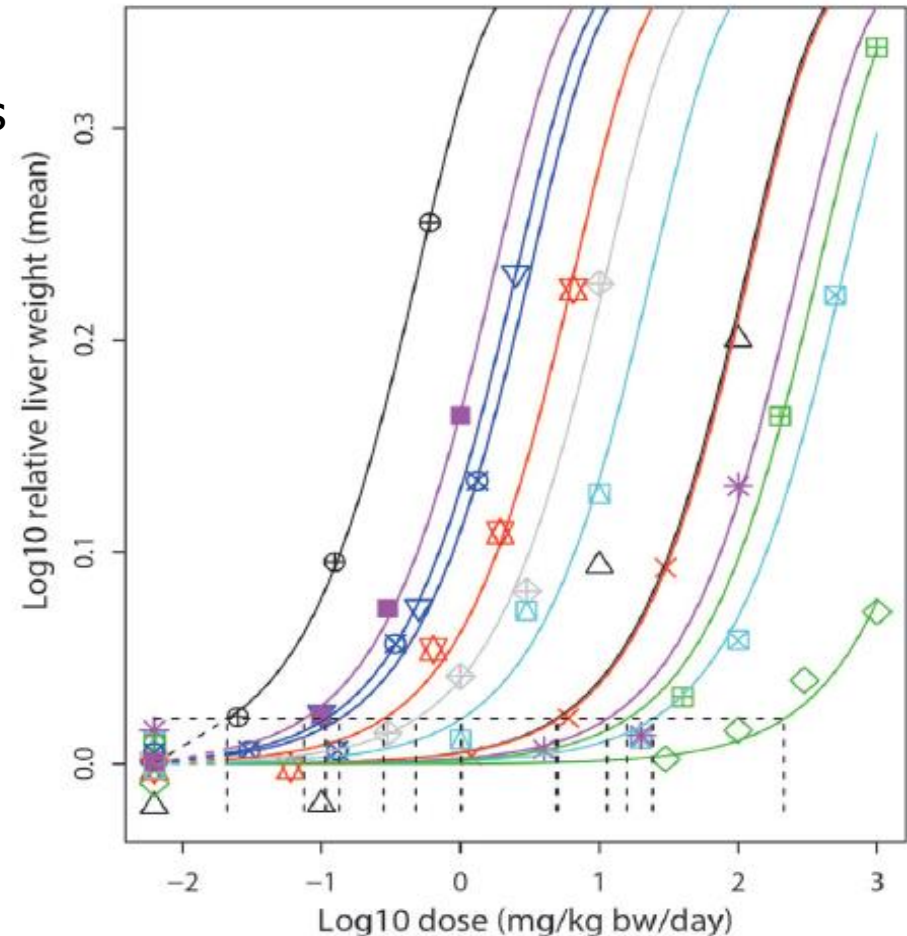
- Quantitative measures needed
 - Temporary framework of enforcement
 - › Transport of soil, construction and so on
 - Risk assessment of polluted sites
 - › Fish consumption, kitchen garden
 - Drinking water
- Focused on PFOA, HFPO-DA and PFOS
 - Human health based guidance values
 - Drinking water standards
 - (Preliminary) environmental quality standards for soil and surface water
 - › Ecotoxicity, secondary poisoning, human fish consumption





Relative potency factors

- Co-exposure to many PFAS
 - Human based guidance values for a few PFAS
- Relative potency factors
 - Effects from toxicological studies in rats
 - Based on liver effects
- How to apply to EFSA opinion
 - 4 PFAS
 - Epidemiological study
 - Immune system effects
- Link to WFD?
 - EQS for group of PFAS





Future steps

- Work in progress
 - Restriction for group of PFAS
 - Refinement of RPF approach
 - Development of EQS for group of PFAS under WFD
 - General criteria for PMT
- Consequences of EFSA opinion?
 - › Potentially revision of risk assessments



Illustrations newspapers, magazines and reports

- Slide 2: <https://www.ftm.nl/tag/pfas>
- Slide 3 and 5: https://echa.europa.eu/documents/10162/13638/svhc_msc_supdoc_hfpo-da_20190626_final_12819_en.pdf/53fa6a5b-e95f-3128-ea9d-fa27f43b18bc
- Slide 4: <https://www.ad.nl/den-haag/chemours-moet-meer-onderzoek-doen-naar-kankerverwekkendheid-genx-dat-in-drinkwater-zit~af38e2bc/>
- Slide 7: https://echa.europa.eu/documents/10162/31366392/pfas_webinar_slides_en.pdf/361234ba-5b0c-d5d0-df0d-4145c3e08c73
- Slide 8: <https://www.rivm.nl/en/rivm-reports>