



Norwegian
Environment
Agency

Current and upcoming PFAS restrictions

Nordic Conference on PFAS Substitution

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Regulations worldwide

International regulations



+ National initiatives

2006 PFOS

...

2023 uPFAS proposal

EU Chemicals regulations



2020 PFOA

Water regulations

Waste regulations

Soils and biosolids regulations



PFAS – Restrictions in REACH and POPs

Substance (group)	DS	Legislation	Applicable from
PFOS	...	POPs	2006
PFOA	NO, DE	POPs	2020
PFHxS	NO	POPs	2021
C9-C14 PFCA	SE, DE	REACH	2021
TFDAs in spray products	DK	REACH	2021
PFHxA	DE	<i>REACH, not yet adopted</i>	<i>TBD</i>
<i>PFAS in fire-fighting foam</i>	<i>ECHA</i>	<i>REACH, not yet adopted</i>	<i>TBD</i>
<i>Universal PFAS restriction</i>	<i>SE, DK, NL, DE, NO</i>	<i>REACH, in opinion development phase</i>	<i>TBD</i>



Substances of very high concern (SVHC) - PFAS

Substance	DS	Justification	Year
C11-C14 PFCA	DE	vPvB	2012
PFOA (APFO)	DE	Repr 1B, PBT	2013
PFNA	SE	Repr 1B, PBT	2015
PFDA	SE	Repr 1B, PBT	2017
PFHxS	SE	vPvB	2017
HFPO-DA (GenX)	NL	ELoC	2019
PFBS	NO	ELoC	2020
PFHpA	NL	Repr 1B, PBT, vPvB, ELoC	2023



Chemicals Strategy for Sustainability - Towards a Toxic-Free Environment, the Commission 2020

PFAS⁶²

The Commission will:

- ban **all PFAS** as a group **in fire-fighting foams** as well as in **other uses**, allowing their use only where they are essential for society;
- address PFAS with a **group approach**, under relevant legislation on water, sustainable products, food, industrial emissions, and waste;
- address PFAS **concerns on a global scale** through the relevant international fora⁶³ and in bilateral policy dialogues with third countries;
- establish an EU-wide approach and provide financial support under research and innovation programmes to identify and develop **innovative methodologies for remediating PFAS contamination** in the environment and in products;
- provide research and innovation funding for safe **innovations to substitute PFAS** under Horizon Europe.

Universal PFAS restriction proposal - uPFAS



- Submitted 13 January 2023
- PFAS as a broad group
- Applies to all applications
- Derogations for specific uses

PFAS restrictions – overlaps (ChemSec, 2022)



<https://marketplace.chemsec.org/articles/news/2022/06/09/the-universal-pfas-ban-is-coming-are-you-ready/>



Restriction proposal - content

- REACH = Registration, Evaluation, Authorisation and **restriction** of CHemicals
- Restriction proposal:
 - ✓ Chemical identity
 - ✓ Hazards, risks, effects
 - ✓ Applications
 - ✓ Availability of alternatives
 - ✓ Socio-economic analysis – impact assessment



Sectors/Uses of PFAS

- PFAS Manufacturing (NL)
- Firefighting foams
- TULAC (SE)
- Food contact materials and packaging (NL)
- Metal plating/metal products (DE)
- Consumer mixtures (DE)
- Ski wax (NO)
- Transport (DE)
- Applications of fluorinated gases (NO)
- Electronics and semiconductors (DK)
- Energy sector (DK)
- Construction products (DK)
- Lubricants (DK)
- Petroleum and mining (NO)
- Medical devices (NL)
- Cosmetics (SE)
- Waste (NL)
- Other uses



Rainwear



Non-stick coating



Cosmetics



Medical equipment

Tonnages and emissions

Application	Tonnage range	Emission range % emitted in manufacturing and use phase	Emission contribution Contribution to total emission [%]
Applications of fluorinated gases	> 10 000	5 – 25	> 50
Textiles, upholstery, leather, apparel & carpets	> 10 000	5 – 25	10 – 50
Medical devices	> 10 000	5 – 25	5 – 10
Manufacture	> 10 000	0 – 5	1 – 5
Food contact materials and packaging	> 10 000	0 – 5	0 – 1
Transport	> 10 000	0 – 5	0 – 1
Construction products	1 000 – 10 000	25 – 75	1 – 5
Electronics and semiconductors	1 000 – 10 000	5 – 25	0 – 1
Lubricants	1 000 – 10 000	5 – 25	0 – 1
Petroleum and mining	1 000 – 10 000	0 – 5	0 – 1
Energy sector	1 000 – 10 000	0 – 5	0 – 1
Metal plating and manufacture of metal products	100 – 1 000	0 – 5	0 – 1
Cosmetics	10 – 100	> 95	0 – 1
Consumer mixtures	10 – 100	75 – 95	0 – 1
Ski wax	0 – 10	25 – 75	0 – 1



Restriction Options (RO's) assessed

RO1

Full ban of all uses

- Transition period: 18 months

RO2

Ban with use-specific derogations

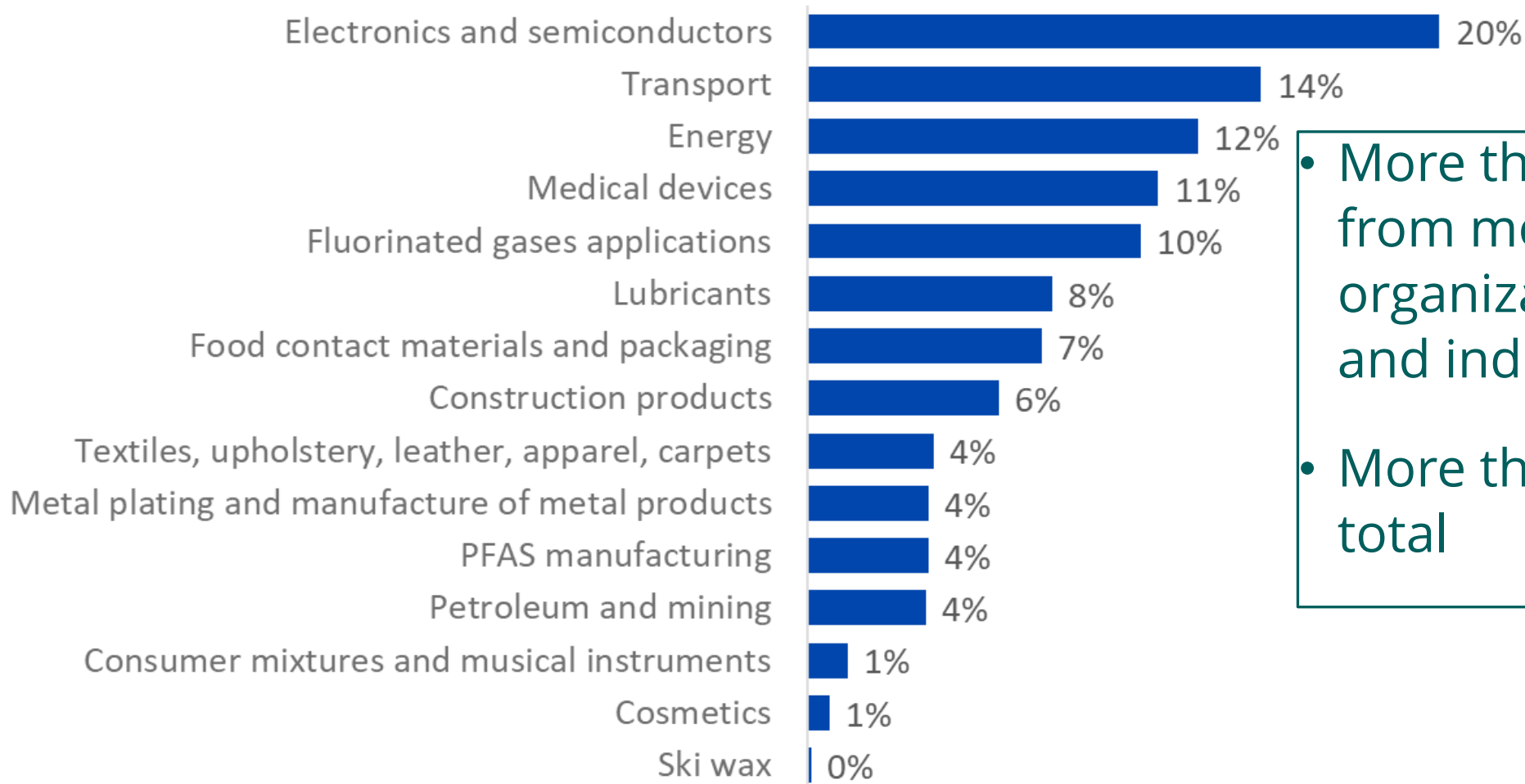
- Transition period: 18 months
- Duration of derogation:
 - 5 years (based on set criteria relating to alternatives)
 - 12 years (based on set criteria relating to alternatives)
 - Time-unlimited derogations (specifically justified)

Further process:

- Restriction report consultation: 22 March – 25 September 2023
- ECHA's scientific committees:
 - Committee for Risk Assessment (RAC)
 - Committee for Socio-economic Analysis (SEAC)
- Decision to be made by the EU Commission together with the member states

<https://echa.europa.eu/restriction-process>

Consultation – comments submitted



- More than 5 600 comments from more than 4 400 organizations, companies and individuals
- More than 100 000 pages in total



PFAS - Non-threshold substances

- PFAS being persistent, bioaccumulating and mobile, their releases will lead to ever-increasing environmental concentration
- As PFAS have toxic effects, harmful levels will inevitably be reached sooner or later
- When harmful levels are reached, there is no way back → long-lasting and potentially irreversible damage
- Releases used as a proxy for risk – to minimize the risk, you will need to minimize the releases



uPFAS – Limit values

- 1) 25 ppb for any PFAS (except polymeric PFASs)
- 2) 250 ppb for the sum of PFASs, optionally with prior degradation of precursors
- 3) 50 ppm for PFASs, including polymeric PFASs

Information requirement: If, as a part of an authority enforcement campaign, total fluorine exceeds **50 mg F/kg**, the manufacturer, importer or downstream user shall upon request provide to the enforcement authorities a proof for the fluorine measured as content originating of either PFASs or non-PFASs.



Information in the supply chain

REACH Article 34 - Duty to communicate information on substances and mixtures in the supply chain

Any actor in the supply chain of a substance or a mixture shall communicate the following information to the next actor or distributor up the supply chain:

- (a) new information on hazardous properties, regardless of the uses concerned;



“PFAS regulations drive companies to increased supply chain transparency”

– Enhesa webinar, 30 July 2024



Thank you for your attention!



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Thanks to the teams in Denmark, Sweden, the
Netherlands, Germany and Norway!

