Preparatory Study on Textile Products

Second online stakeholder consultation

9-10 December 2024

WEBEX SESSION

ETIQUETTE FOR VIRTUAL MEETING PARTICIPANTS

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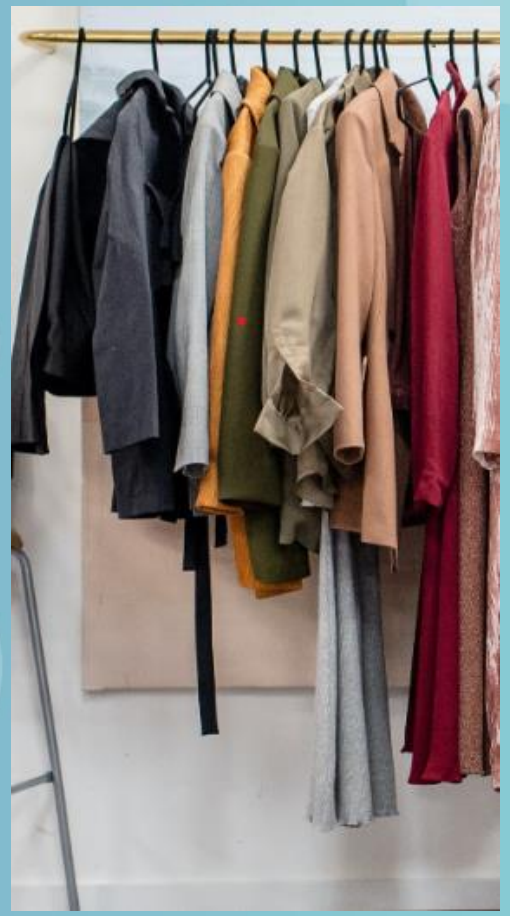
Preparatory Study on Textiles for product policy instruments



2nd Online Stakeholder Consultation Meeting – Day 2
10 December 2024

Joint Research Centre (JRC)

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European Commission

Aim of the meeting

- JRC is supporting the development of the first Delegated Act under the ESPR. Addressing textile apparel.
- Substances and substances of concern, whose questionnaire in PDF format was available to stakeholders since 2 December
- Framework of environmental and economic model, whose documents will be shared with stakeholders after the online meeting.
- Purpose is to collect information and views

Agenda

Time (duration)	Topic
09:15-09:30 (15 min)	Log-in and preparation
09:30-11:00 (90 min)	Presentation (JRC) • Information requirements on substances of concern • Performance requirements on substances • How to contribute Questions and answers
11:00-11:30 (20 min)	Break
11:30-13:00 (90 min)	Presentation (JRC) • Framework of the LCA/LCC model • Gaps in LCI • How to contribute Questions and answers

Meeting etiquette

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Substances in textile apparel

- Information requirements on Substances of Concern
- Performance requirements on substances
- Questionnaire

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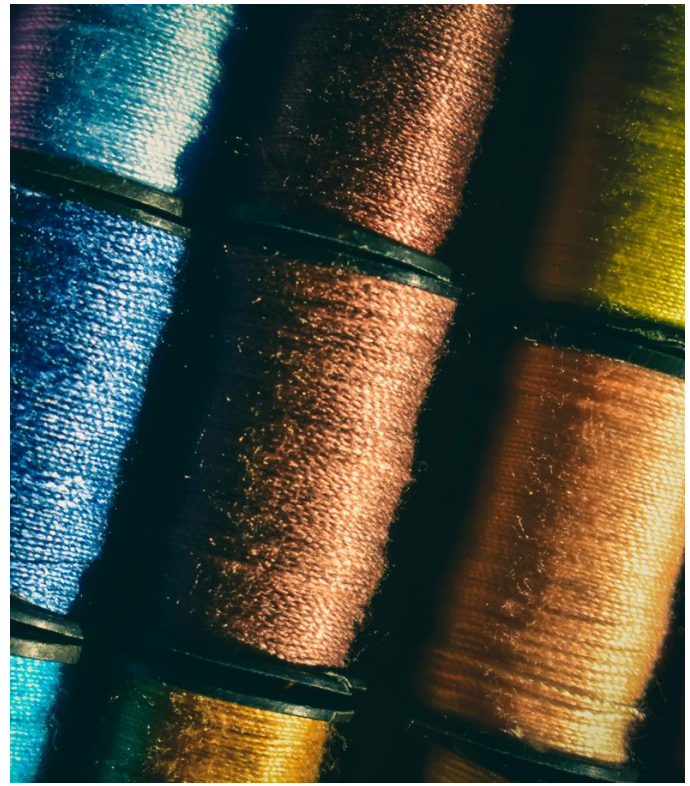
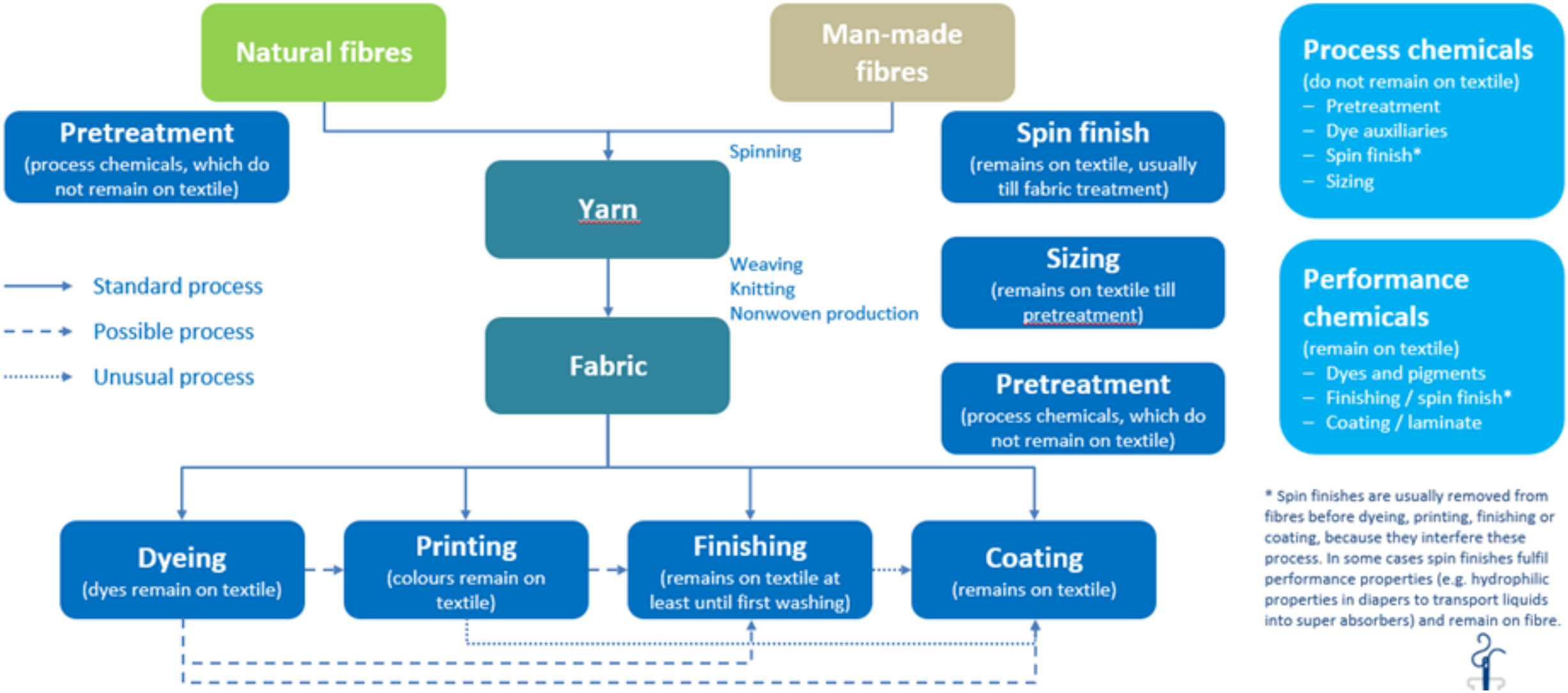
Chemicals in textiles

- Many chemicals are used in textile manufacturing. From fibre production to finishing.
- Different reports suggest that the textiles sector uses between 8 000 – 15 000 different chemicals.
- Some are specific to the different fibres (cotton, polyester, wool, etc)
- Others to specific processes -> dyeing, stain repellence, etc
- Some are hazardous → KEMI (2014) reports 750 / 2450 substances were haz for human health, 440 for ENV



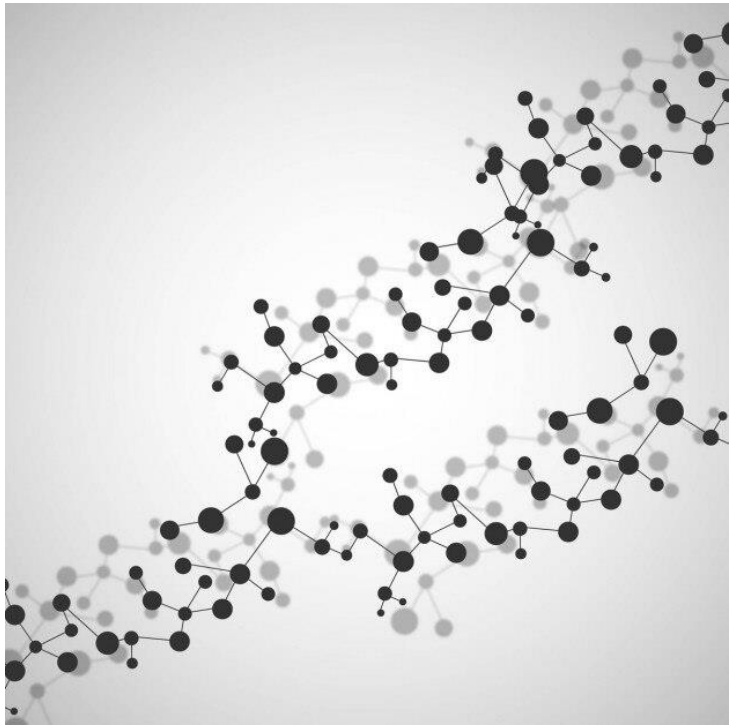
Source: Pexels.com



Source: Adapted from EUCTL, the European Chemistry for Textile and Leather Association

Chemicals in textiles

- Functional chemicals → dyes, pigments, plasticisers, oil / water repellents, stabilizers, etc
- Process chemicals (not intended to remain) → organic solvents, surfactants, softeners, acids and bases, etc
- Contaminants, degradation products → PAHs, aryl amines, formaldehyde from resins, etc.
- Legacy substances can remain in textile apparel and be reintroduced via recycled fibres or reused clothes
- Most textiles are manufactured outside of the EU
- Two approaches to chemical information → supply chain transparency and analytical



Designed by Freepik

Chemicals restricted in textiles

In the EU restrictions under **REACH, BPR** or the POPs Regulation are particularly relevant.

- 4 - Tris (2,3 dibromopropyl) phosphate;
- 7 - Tris(aziridinyl)phosphinoxide;
- 8 – Polybrominated biphenyls;
- 18 - Mercury compounds;
- 20 - Organostannic compounds;
- 43 - Azocolourants and Azodyes;
- 46/46a - Nonylphenol and Nonylphenol ethoxylates;
- 47 - Chromium VI compounds (relevant to leather articles);
- 68 - C9-C14 PFCAs and
- 72 - CMRs in textiles and footwear.
- 50 – (certain) polycyclic aromatic hydrocarbons;
- 51 and 52 (certain phthalates);
- 61 - Dimethylfumarate;
- 63 – Lead and its compounds. .

AFIRM and ZDHC Restricted Substance Lists
OEKOTEX 100 Standard
EU Ecolabel hazardous substances
+
Traceability / supply chain information systems in different stages of development

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Analysis of substances

- Many substances. Targeted / risk based testing to complement supply chain information.
- Suitable analytical methods required. Costly.
- Currently mostly used to check for compliance with existing restrictions → e.g. REACH4Textiles.
- waste textiles / recycled materials → e.g. H&M / IKEA study

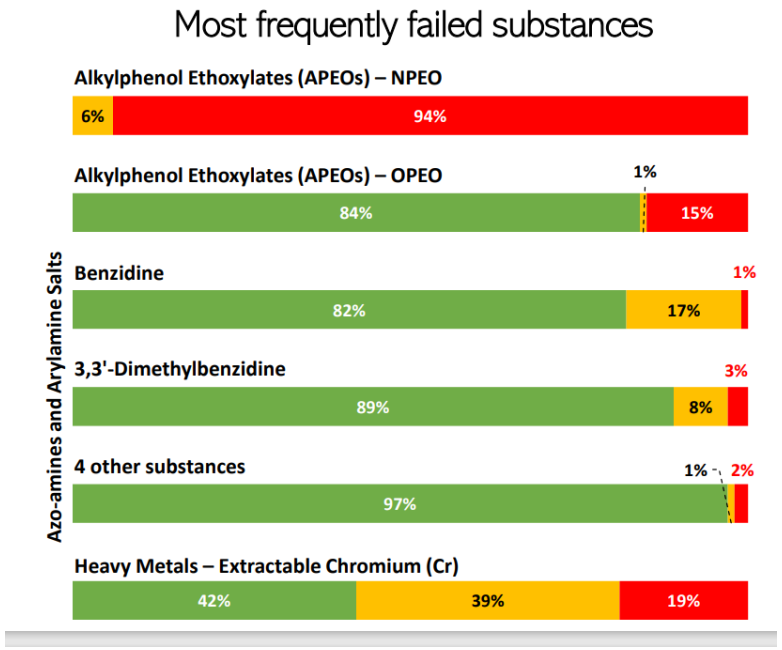
Detected chemicals

REACH 4 textiles

	Total tests	failures	%
Carcinogenic amines	279	1	0,36
PAH's	215	3	1,40
Phthalates	191	9	4,71
APEO	440	14	3,18
Metals	397	2	0,50
Nickel release*	43	3	6,97
SCCP/MCCP	170	3	1,76
Chromium VI*	33	8	24,24

* Ni and CrVI testing is very complex and needs further optimisation

WOOL
Post-consumer



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Challenges

- It is challenging to obtain granular information on substances used in the textile apparel sector
- Addressing Global value chains
- Different requirements / chemicals legislation / environmental legislation
- Challenges in defining a Base Case for the LCA / LCC
- Analytical challenges / verification
- Information management

Source: Pexels.com

Information requirements

- ESPR Article 7(5) lays down the obligation to set information requirements on substances of concern for the products in scope of the Delegated Act.
- Applies to all SoCs unless thresholds or exemptions apply (except for SoCa). These can be defined in the DA.
- Differentiated dates may be set on the application of this obligation

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SoC definition

According to Article 2(27) of the ESPR, a 'substance of concern' means:

"a substance that:

a) meets the criteria laid down in Article 57 of Regulation (EC) No 1907/2006 and is identified in accordance with Article 59(1) of that Regulation; → SVHCs in "Candidate list"

b) is classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 in one of the following hazard classes or hazard categories:→ most harmful substances

(i) carcinogenicity categories 1 and 2;
(ii) germ cell mutagenicity categories 1 and 2;
(iii) reproductive toxicity categories 1 and 2;
(iv) endocrine disruption for human health categories 1 and 2;
(v) endocrine disruption for the environment categories 1 and 2;
(vi) persistent, mobile and toxic or very persistent, very mobile properties;
(vii) persistent, bioaccumulative and toxic or very persistent, very bioaccumulative properties;
(viii) respiratory sensitisation category 1;
(ix) skin sensitisation category 1;
(x) hazardous to the aquatic environment — categories chronic 1 to 4;
(xi) hazardous to the ozone layer;
(xii) specific target organ toxicity — repeated exposure categories 1 and 2;
(xiii) specific target organ toxicity — single exposure categories 1 and 2;

c) is regulated under Regulation (EU) 2019/1021; or → POPs

d) negatively affects the reuse and recycling of materials in the product in which it is present" → new Category

Same substance can be in several categories!!

SoC (d) – affecting reuse & recycling

These are defined as substances that "*negatively affects the reuse and recycling of materials in the product in which it is present*".

According to Article 5(14) of ESPR the Commission must for each product group determine, where relevant, which substances fall under the definition in Article 2(27), point (d), taking into account, at least, whether:

(a) based on standard technologies, the substances make the reuse, or recycling process more complicated, costly, environmentally impactful, or energy- or resource-demanding;

(b) the substances impair the technical properties or functionalities, the usefulness or the value of the recycled material coming from the product or products manufactured from that recycled material;

(c) the substances negatively impact aesthetic or olfactory properties of the recycled material'.

SoC (d) – affecting reuse & recycling

This assessment requires considering:

1. Existing regulatory limitations to the placing on the market or use of substances;
2. Customer-driven limitations along the supply chain;
3. Technical constraints, interfering with the processes leading to reuse; preparing for reuse or recycling; or with the functionality, usefulness, value and aesthetics of the resulting recycled materials or products for reuse
4. These can be “process-disturbing SoCs” or “quality-disturbing SoCs”

Examples are limited: focus on substances has traditionally been on hazards / risks

Support needed to identify such substances relevant to apparel

SoC – minimum information

As a minimum the following information must be provided to allow tracking SoCs along the life cycle of the product

- a) the name or numerical code of the substances of concern present in the product (IUPAC name, other names, EC number, CAS number)
- b) the location of the substances of concern within the product;
- c) the concentration, maximum concentration or concentration range of the substances of concern, at the level of the product, its relevant components, or spare parts;
- d) relevant instructions for the safe use of the product;
- e) information relevant for disassembly, preparation for reuse, reuse, recycling and the environmentally sound management of the product at end-of-life."

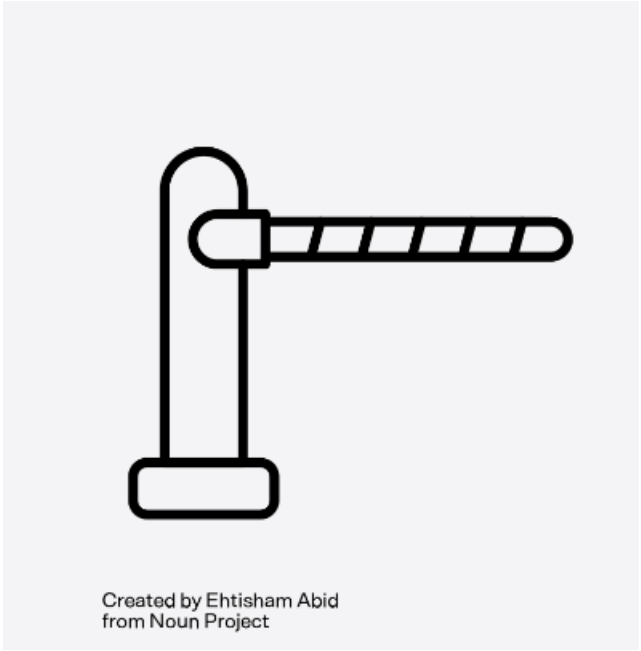
[…] unless such tracking is already possible pursuant to information requirements laid down in another delegated act adopted pursuant to Article 4 covering the products concerned

SoC – thresholds

Article 7(5) specifies:

"*The Commission may, where appropriate for the product group concerned, set thresholds for when the information requirement regarding substances of concern is to apply*"

- A practical general threshold / s below which information requirement applies needed for practical / feasibility reasons
- Precedents: 0.1% limit SVHCs → Art 33 REACH / SCIP Art 9 WFD
- Reporting limits for substances in Safety Data Sheets for mixtures? Other?
- Is there a need for "specific thresholds"?



SoC – thresholds (II)

Thresholds for substances subject to existing restrictions / limitations (e.g under REACH) → generally should not be present in EU market above legal limit

Thresholds of SoC (d) → substances negatively affecting reuse and recycling

Other specific cases?

SoC – exemptions

Article 7(6) states that:

"where the Commission sets out information requirements in a delegated act adopted pursuant to Article 4, it shall, where relevant: […]

provide duly justified exemptions for substances of concern or information elements from such information requirements referred to in the first subparagraph of paragraph 5, based on:

- ✓ the technical feasibility or relevance of tracking substances of concern,
- ✓ the existence of analytical methods to detect and quantify them,
- ✓ the need to protect confidential business information or
- ✓ in other duly justified cases;

substances of concern within the meaning of Article 2(27), point (a), shall not be exempted if they are present in products, their relevant components or spare parts in a concentration above 0,1 % weight by weight"

SoC – timeline for application of information requirements

Article 7(6) (a) specifies that when setting information requirements in a Delegated Act it may:

"*lay down dates of application of such information requirements referred to in the first subparagraph of paragraph 5,differentiating between substances of concern where necessary*"

- Based on which rationale?
- Type of SoC?
- Hazard class?
- Functional chemical vs process chemical / unintended substances?

SoC – Information requirements – Q&A

- Challenges in obtaining information on SoCs substances in textile apparel
- Obtaining information from your supply chain. Experience, tools?
- Analytical approaches – practicality / costs / availability of services?
- What generic thresholds for reporting would you suggest? Rationale?
- Is there a need for specific thresholds?
- Exemptions – for what substances? Based on what?
- Should information requirements for SoCs apply at different time? Why?

Please use the questionnaire!!

Performance requirements (1)

ESPR envisages that performance requirements may be set to improve product aspects listed in Article 5(1):

(a) durability;
(b) reliability;
(c) reusability;
(d) upgradability;
(e) repairability;
(f) the possibility of maintenance and refurbishment;
(g) the presence of substances of concern;
(h) energy use and energy efficiency;
(i) water use and water efficiency;
(j) resource use and resource efficiency;
(k) recycled content;
(l) the possibility of remanufacturing;
(m) recyclability;
(n) the possibility of recovery of materials;
(o) environmental impacts, including carbon and environmental footprint;
(p) expected generation of waste.

Performance requirements (2)

Product parameter (f) as described in Annex I is the relevant one to consider towards improving relevant product aspects in Art 5(1):

"(f) use of substances, and in particular the use of substances of concern, on their own, as constituents of substances or in mixtures, during the production process of products, or leading to their presence in products, including once those products become waste, and their impacts on human health and the environment;"

Article 6(3) states that:

"Performance requirements based on the product parameter referred to in Annex I, point (f), shall not restrict, for reasons relating primarily to chemical safety, the presence of substances in products. However, the setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment."

Performance requirements (3)

Performance requirements MAY be potentially set on substances in a DA:

- In terms of maximum or minimum levels (*e.g. akin to a limitation or restriction but other possibilities too*) or non quantitative requirement
- Should not be put in place under ESPR for substance where the reason is **primarily** of chemical safety – *i.e. to address concerns related to human health and environmental hazards of the substance*. → Avoid overlaps with REACH, POPs…
- Interlinks between the substances and product aspects in Art 5(1) have to be considered to the extent possible – eg link to energy use, water use, etc
- This includes potentially addressing SoCs that negatively affect reuse and recycling
- NOTE: Also other substances, non-SoC, can be addressed, for other ecodesign product aspects

Performance requirements – Q&A

- In your view, for what substances should performance requirements be set under ESPR?
- Do you have specific examples of substances having an impact on the sustainability of products for reasons NOT primarily related to chemical safety? E.g. water use, energy use.

Questionnaire

- A draft questionnaire on substances and SoC in textile apparel has been made available for information in advance of the meeting for information to facilitate the discussion.
- Shortly AFTER this meeting a link will be provided to a questionnaire in EU Survey. Where you can provide your detailed comments.
- The survey will be open until **17 February 2025**
- Please do not include personal information or information that would enable to identify you company / institution except in the fields provided for such purpose.
- A few examples of questions shown in next 2 slides.

Questionnaire

Explanation regarding how the SoC *"negatively affects the* ***RECYCLING*** *of materials in the product in which it is present".*	**Substance identification** (name, CAS, etc.)	**Type of limitation** (specify if regulatory, customer-driven, process disturbing, quality disturbing, other)

Questionnaire

Do you consider that generic or specific thresholds should be set for textile apparel below which information requirements on substances of concern should not apply? In your opinion, what generic and / or specific thresholds should be set below which information requirements on substances of concern should not apply. Please justify your proposal.

The obligation to provide information on substances of concern in products within the scope of an ESPR Delegated Act applies by default to all substances of concern, without prejudice to thresholds and/or specific exemptions that may be defined. Should differentiated dates be set on the application of this obligation, for instance for different types or categories of substances of concern, relevant to textile apparel? Please justify your proposal.

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Break until 11:30

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Framework of the environmental and economic model

- LCA & LCC in the preparatory study
- Details on the Life cycle Inventory

Slides on the framework of the environmental and economic model are available at:

https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/467/documents

Closing remarks

European Commission

Thank you

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Slide 69: Retailing figure, source: Technical Secretariat of the PEFCR on Apparel and Footwear 2021. Draft Product Environmental Footprint Category Rules (PEFCR) Apparel and Footwear version 2.0.

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