



Hazardous chemicals in textiles

- A report from a government assignment

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The Swedish chemicals agency



- Authority under the Ministry of the Environment
- Limit the health and environmental risks associated with chemicals promoting rules and legislation:
 - Sweden
 - in the EU
 - Globally
- Contribute to achieving the Swedish environmental quality objective of 'A Non-Toxic Environment'

The Swedish action plan for a toxic-free everyday environment



- The objective - to reduce the risks of chemicals in our daily lives
- Protect the children
- Monitoring and dialogue
- Focus on - CMR, endocrine disrupting- and allergic substances



Towards a Non-Toxic Environment

Need for a EU-regulation

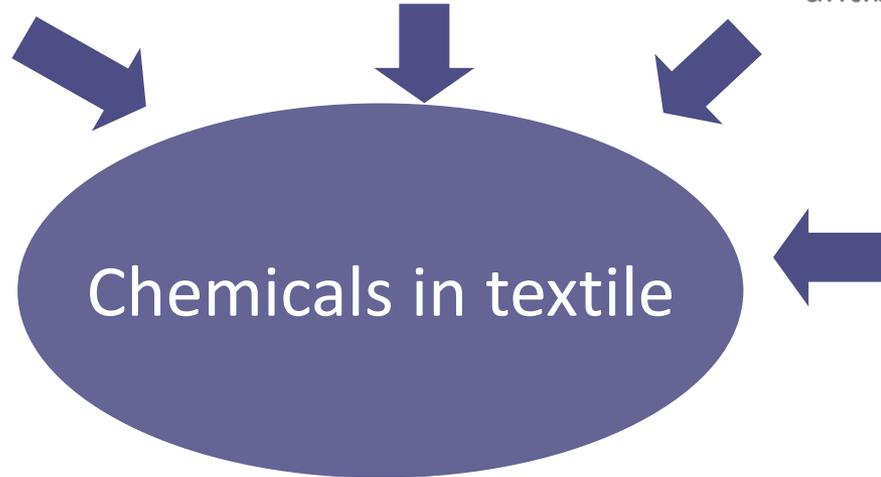
- Textiles - a wide group of products and applications
- Chemical-intensive manufacturing
- The chemicals used may be harmful to health and/or to the environment
- Lack a coherent EU-regulation that covers hazardous chemicals that might be included in textiles
- EU-regulation would raise the minimum level for the entire textile industry



Fiber production
pesticides

**Production of yarn
and fabric**
oils, adhesives,
surfactants, brighteners,
defoamers

Dyeing and finishing
colourants, prints
flame retardants,
impregnation,
antibacterial substances



Transport
fungicides

**Consumer use (washing),
waste and recycling**

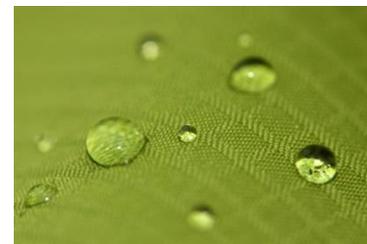
- In Sweden, the quantity of textile products put on the market increased by 40% from 2000 to 2009
- Every year 145,000 tonnes of textiles are thrown away in Denmark, Finland and Sweden altogether

The elements of the government assignment



- A non-exhaustive list of chemicals that may be present in textiles
- A non-exhaustive list of hazardous chemicals that should be limited in textiles
- An evaluation of the risks that hazardous chemicals in textiles present
- A legislative proposal for a regulation at EU level
- The proposal for legislation should be accompanied by an impact assessment
- In dialogue with stakeholders
 - Workshop with the textile industry and other stakeholders in Sweden (30 in total)
 - Questionnaire to stakeholders (80 in total) within Sweden and in EU

Delimitations

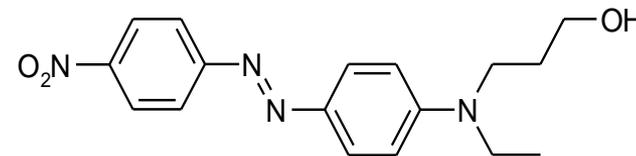


- The Swedish Chemicals Agency has focused on the pure textile material of the final product
- Leather or other material parts as for example metals in buttons, zippers or other details of metal or plastic on the textile
- Biocides are not covered since they are covered in the Biocidal Products Regulation (EU) No 528/2012



Exposure of hazardous chemicals

- Direct exposure via the skin; mainly allergies: A Swedish study shows that at least every hundred person is allergic to three disperse dyes tested
- Direct exposure to children when sucking on textiles
- Dermal and oral indirect exposure from indoor dust
- Environmental exposure – mostly laundry and waste



Disperse Blue 106



Non-exhaustive list of hazardous chemicals

- Gross list of **1,900 chemicals** that may have hazardous properties



- 165 chemical substances with certain **harmonised** classifications according to CLP regulation:
 - 59 Carcinogenic substances, 9 Mutagenic substances, 39 substances toxic to Reproduction (CMR 1)
 - 70 allergenic substances Skin and respiratory sensitisation
 - 57 substances with environmentally hazardous, long-term effects (Aquatic Chronic 1)
- In addition - **24** substances on the **candidate list** in Reach

The objectives of the evaluation

1. A unified regulation at EU level to effectively target hazardous chemicals in textiles in the EU
2. To limit the content of hazardous chemicals in textile products intended for consumer use.
3. To achieve a regulation that is practical; i.e. implementable, enforceable and manageable, for the affected parties.

Regulatory options



- Expanding the Fibre Labelling regulation – fulfill the 3 options
 - BUT not very popular amongst the Swedish companies
- REACH - not fulfilling the 3 options
 - BUT is the preferred regulatory option by many of the stakeholders consulted
 - Companies in Sweden ask for a separate chapter on REACH for articles



Overall conclusion



- There is a large number of chemical substances used in textile production (1900 chemicals in non-exhaustive mapping)
- A regulation based on **intrinsic properties of the substances** is a way to handle this large number of chemicals instead of a risk based approach as in Reach
- The Fibre Labeling Regulation could be one way of regulating hazardous chemicals in textiles (further assessment needed)
- An EU regulation would benefit the textile industry since the requirements would be harmonised
- An EU regulation would raise the minimum level for the entire textile industry

The way forward



- Nordic meeting (Denmark, Norway, Finland, Iceland, Faroe Islands) on 4-5 december on hazardous chemicals in textiles to discuss a future regulation
- Present the report at BfR meeting (The Federal Institute for Risk Assessment) in Germany
- Textiles should be part of the EU-strategy for a non-toxic environment in the 7th Environment Action Program



Thank you!

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