The Helsingør Statement on Poly- and Perfluorinated Alkyl Substances – Where Are We Going with Fluorinated Alternatives?

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Science and Policy Symposium
Madrid
August 31, 2014
Starting Point

♦ 5th International Workshop on Fluorinated Compounds in Materials, Humans and the Environment Helsingør, Denmark; October 27–29, 2013

♦ Important point in time:
  transition from long-chain PFASs to alternatives,
  in many cases: fluorinated alternatives
Concerns

✧ Long-chain PFASs: often PBT or POP properties
✧ Substitution process underway
✧ But: not much information available on properties and toxicity of fluorinated alternatives
✧ General characteristic: (very) high persistence because of perfluorinated alkyl chain
✧ In some cases, high toxicity is known, for example for GenX, a perfluoroether carboxylic acid (PFIECA)
Concern: Lack of Information

✧ Wang et al. (2013) identified 30 fluorinated alternatives
**Concern: Lack of Information**

- Wang et al. (2013) identified 30 fluorinated alternatives
- Information available via OECD eChemPortal (www.echemportal.org):
  - no quantitative information at all for 26 of 30
  - three substances registered under REACH;
    some information available in ECHA database
  - one substance in the Canadian DSL
Content of the Helsingør Statement

✧ 10 key statements, based on results documented in the peer-reviewed literature

✧ Open-access publication in Chemosphere, http://dx.doi.org/10.1016/j.chemosphere.2014.05.044

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PFASs are ubiquitous

Regulation has caused levels of some PFAS to decline, but others remain stable or continue to increase.

More information on fluorinated alternatives is urgently needed.

Less efficient fluorinated alternatives may lead to increased use, emissions, and exposure.

Concerns about low testing requirements.
Statements 6–8

- Regulations need to be established in an increasing number of countries producing and applying PFASs.
- PFASs, including fluorinated alternatives, lead to highly persistent transformation products, which implies increasing human and environmental exposure.
- Increasing exposure implies increasing risk of adverse effects.
Statements 9–10

✧ It is costly for society to produce new toxicological data; therefore data produced by chemical manufacturers should be made publicly available.

✧ Non-persistent alternatives to long-chain PFASs should be used to protect clean food and water resources for a growing human population.
The Helsingør Statement on poly- and perfluorinated alkyl substances (PFASs)

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