



**Ministry of Environment
and Food of Denmark**

Environmental
Protection Agency

Danish EPA Chemicals

Ref. RDH

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Special Rapporteur on human rights and hazardous substances and wastes
Sustainable Human Development Section
Special Procures Branch
UNOG-OHCHR
Palais de Nations
CH-1211 Geneva 10, Switzerland

Sent via email to: srtoxicwaste@ohchr.org

Dear Special Rapporteur on human rights and hazardous substances and waste,

Please receive the response to your questionnaire from Denmark in the attached
Annex.

If you have any other queries, you are welcome to contact us again.

Yours sincerely,

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Annex. Response to the questionnaire from Special Rapporteur on human rights and hazardous substances and waste

Response from Denmark.

Question 1. Does your government monitor children's exposure to hazardous substances in your country?

Yes, biomonitoring studies including children have been performed in Denmark. They are not continuously running programs, but the cohorts are temporary and specific, established to support general knowledge building on public health, some of which also providing information on chemicals exposure.

In 2014, an overview article of all Danish biomonitoring data on non-persistent chemicals collected between 2006 and 2012 was published. The data cover information on children, adolescents, young men and pregnant women. The article, and especially the supplementary material, provides specific information on the non-persistent chemicals exposures for chemicals/chemicals groups 'phthalates, phenols (covering e.g. bisphenol A and triclosan) and parabens'. The article and supplementary material has free public access: <http://www.reproduction-online.org/content/147/4/555.long>

Currently, two ongoing biomonitoring projects include children's exposures, but results have not been published in peer reviewed articles yet. One is investigating children's exposure to UV-filters, and the other is looking at exposure during fetal life. Both project reports and the peer reviewed articles will be accessible from the website of the Danish Center on Endocrine disrupters, www.cend.dk, when available.

Further, Denmark participated in the European biomonitoring project DEMOCOPHES, covering 17 European countries. DEMOCOPHES covered a range of chemical analysis from a total of 145 mother-child pairs from rural and urban Denmark. The project covered both persistent and non-persistent chemicals, and the results are still being published. The results for phthalates, phenols and parabens, can be found here: <http://www.ncbi.nlm.nih.gov/pubmed/23528233>, and results for PCBs, cadmium, mercury, PFAS and cotinine (smoking) are listed here: <http://www.ncbi.nlm.nih.gov/pubmed/?term=democophes+danish>. [General information on DEMOCOPHES can be found at their website http://www.eu-hbm.info/democophes](http://www.eu-hbm.info/democophes). [For persistent chemicals, the results of a two-country \(Finland and Denmark\) comparison of chemicals in breast milk was published in 2010: http://www.ncbi.nlm.nih.gov/pubmed/19780864](http://www.ncbi.nlm.nih.gov/pubmed/19780864).

Projects funded by the Danish Environmental Protection Agency (EPA) will be made public through the website www.mst.dk, and projects run through the Danish Center on Endocrine disrupters will be made public through their website www.cend.dk. Further, the Center on Endocrine disrupters

has an annual, public, free access information day for all interested stakeholders where new information is presented.

Question 2. Does your government specifically assess the risks of childhood exposure to substances?

In 2009 the Danish EPA published the report ‘Survey and Health ‘Assessment of the exposure of 2 year-olds to chemical substances in Consumer Products’ looking at the combined exposures of children to chemicals, and in 2012 a report focusing on the combined exposures of pregnant women and the unborn child was published ‘Exposure of pregnant consumers to suspected endocrine disrupters’. The reports can be found here: <http://www2.mst.dk/udgiv/publications/2009/978-87-92548-81-8/pdf/978-87-92548-82-5.pdf> and <http://www2.mst.dk/Udgiv/publications/2012/04/978-87-92903-02-0.pdf>

In general, when performing risk assessments, no specific assessment factors are added to cover children’s exposures. However, when selecting the no observed adverse effect level (NOAEL) to carry forward to DNEL setting and risk assessment, a value derived from developmental effects seen in animal testing is often selected in order to take into account that exposure during development is among the most sensitive times of exposure.

Question 3. Does your country have specific measures in place to prevent childhood exposure to hazardous substances?

Denmark has national bans on use of phthalates in toys and childcare articles for children aged 0-3 years:

<http://eng.mst.dk/topics/chemicals/legislation-on-chemicals/fact-sheets/fact-sheet-phthalates-in-toys-and-childcare-articles/> and on use of parabens in cosmetic products intended for children:

<http://eng.mst.dk/topics/chemicals/legislation-on-chemicals/danish-legislation-on-specific-substances/parabens---special-danish-legislation-for-child-products/>.

In addition, several public awareness raising campaigns on the use and effects of chemicals have been run in the past years, targeting different public groups, e.g. pregnant women, parents and grandparents, kindergartens, schools and high schools. Not all are translated into English, but some of the translated campaigns can be accessed here: Expecting a baby? Advice about chemicals and pregnancy. <http://eng.mst.dk/media/mst/69080/Expecting%20a%20baby.pdf> Good chemistry in your child’s everyday life – 0-6-year-olds and chemicals. <http://eng.mst.dk/topics/chemicals/consumers--consumer-products/information-campaigns/good-chemistry-in-your-childs-everyday-life---o-6-year-olds-and-chemicals/>

Other information campaigns on chemicals in consumer products which have been translated to English can be found here:

<http://eng.mst.dk/topics/chemicals/consumers--consumer-products/information-campaigns/>

Further, consumer products carrying the eco-label 'the Nordic Swan' is recommended to the public if they want to extra careful wrt. children and chemicals exposures, as the label criteria are stricter than for other marketed products.

Question 4. Causation

Generally, the regulatory approach is a cautious approach, focusing on prevention of harm to human health and the environment. The issue of causation for human health effects as a result of chemicals exposures is extremely difficult to establish, and only exist from sporadic knowledge following from chemical accidents, occupational exposures and for some pharmaceutical uses. Chemicals regulation is therefore primarily based on results from animal testing, where a cause-effect relationship can be established with reasonable certainty.