



ARCTIC CONTAMINANTS
ACTION PROGRAM

ACTIONS TO REDUCE FORMATION AND EMISSIONS OF DIOXINS



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Due to the high persistence, bioaccumulative properties, and pronounced toxicity of dioxins, it is of high priority to reduce their formation, as well as human and environmental exposure. This is underlined by the fact that, in many parts of the industrialized world, the Tolerable Daily Intake (TDI) for dioxins is exceeded by significant segments of the population.

Under the Stockholm Convention on Persistent Organic Pollutants (POPs), Parties are required to reduce total releases of dioxins from anthropogenic sources. Furthermore, Parties must develop action plans as part of their National Implementation Plans (NIP) to identify, characterize and address the releases of dioxins (and other unintentional POPs listed in Annex C).

Five years after developing their action plans, Parties are required to review their adopted strategies, including the extent to which their unintentional POPs releases have been reduced.

There are three major ways to reduce human and environmental dioxin exposure.

- Reduce formation
- Reduce emission into the environment
- Reduce human exposure

Reduction of formation of dioxins can be achieved with modifications and tuning of industrial processes. The selection of raw materials can also, in many cases, be of profound importance for dioxin formation.

Reduction of emission into the environment can be achieved by reduction of the amount of dioxins in exhausts, effluents, products, and wastes. Such cleaning measures are specific to different industrial processes. A comprehensive overview of measures to reduce formation and of measures to reduce emission can be found in the “Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs under Article 5 of the Stockholm Convention.” (<http://toolkit.pops.int/Publish/Downloads/UNEP-POPS-TOOLKIT-2012-En.pdf>)

Reduction of human exposure can be achieved with improved control of food, especially whole foods and foods of animal origin with high fat content. In the EU, there are limits set on dioxin content in a number of food categories. Foods exceeding these limits are not allowed on the market. Reduction of human exposure can also be achieved through better education of consumers – for example, through dietary advice issued by authorities.

Contacts

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