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## Quick Guide to IPEN Views on POPRC15

September 2019

### Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds

At POPRC14, the Committee concluded that perfluorohexane PFHxS, its salts and PFHxS-related compounds are likely as a result of their long-range environmental transport to lead to significant adverse human health and environmental effects such that global action is warranted. PFHxS has been a regrettable substitute for PFOS and used in consumer products; firefighting foams; metal plating; textiles; leather and upholstery; polishing agents and cleaning/washing agents; coatings; impregnation/proofing; and the manufacturing of electronics and semiconductors. Technically feasible, cost-effective, alternatives are available for these uses, including fluorinated and non-fluorinated substances as well as non-chemical alternatives. However, regrettable fluorinated substitutes such as PFNA, PFDA and PFuDA are increasing in pregnant Inuit women in the Arctic. High costs are estimated for remediation of contaminated sites, such as former and current manufacturing and fire-fighting foam training sites, airports, landfills for industrial waste, and hazardous waste, as well as for the removal of PFAS, including PFHxS, from drinking water and water sources.

> PFHxS its salts and PFHxS-related compounds should be recommended for listing in Annex A with no specific exemptions. In addition, the POPRC should recommend avoiding PFAS substitutes for PFHxS as they could have negative environmental, human health and socio-economic impacts due to their persistency and mobility.

### Dechlorane plus (DP)

DP is an example of a substance that never should have been produced as it is a slight modification of mirex – one of the original dirty dozen substances listed in the Convention. DP is a polychlorinated flame retardant and persistent with an estimated half-life in water of 24 years and only 4 – 8% degradation in soil after 260 days. The log  $K_{ow}$  is 9.3 and BMFs or TMFs greater than 1 have been observed in studies of food webs, verifying that it fulfills the Annex D criteria for bioaccumulation. In addition, DP has been found in human milk, serum, and cord blood. Monitoring data indicates long-range atmospheric transport as it has been found in Arctic air, snow, soil, sediment, water, moss, mushrooms and biota and Antarctic soil, lichen and mosses. DP adverse effects include oxidative damage, neurotoxicity, liver impairment and a potential for endocrine disruption (e.g. thyroid and sex hormones). In several species, the substance is maternally transferred to offspring and crosses the blood-brain barrier.

> Dechlorane plus meets Annex D screening criteria and should move forward to a more comprehensive examination of POPs properties in Annex E evaluation.

### Methoxychlor

The degradation half-life of methoxychlor in water is 208 days and the half-life in sediment is 116 – 206 days, indicating persistence. Methoxychlor residues have been found in Arctic ice dating back to the 1950s, indicating both persistence and long-range transport. The log  $K_{ow}$  is 5.08 and BCF values of 8,300 have been reported, though there is variation in values depending on methodology and field data is lacking. All the data available suggest that methoxychlor meets the Annex D criteria for bioaccumulation. Methoxychlor has been found in Arctic air, snow, and ice indicating long-range



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environmental transport. Methoxychlor adverse effects include elevated risk of breast cancer in humans; reprotoxic effects in animal studies; and toxicity to aquatic organisms

> Methoxychlor meets Annex D screening criteria and should move forward to a more comprehensive examination of POPs properties in Annex E evaluation.

### **Review of information related to DecaBDE and SCCPs Specific Exemptions**

COP8 decisions SC-8/13 and SC-8/14 resulted from the adoption of numerous specific exemptions accompanying the listings of DecaBDE and SCCPs that were not recommended by the POPRC. The decisions outline a process for Parties requesting specific exemptions for these substances to provide information on transitioning to alternatives for DecaBDE and SCCPs along with information on production, uses, efficacy and efficiency of possible control measures, control and monitoring capacity and any national or regional control actions.

> The POPRC should establish intersessional working groups on DecaBDE and SCCPs to review information resulting from COP8 decisions SC-8/13 and SC-8/14 and develop recommendations for consideration at COP10.