

Quick Guide to IPEN Views on POPRC9

October 2013

Chlorinated naphthalenes (CNs)

Intentional production of CNs is assumed to have ended and alternatives are already in use. Unintentional releases primarily come from thermal processes in waste incineration, domestic combustion and the metal industry. Control measures include the Convention BAT/BEP guidelines for reducing and eliminating releases of dioxins and furans and measures for addressing PCBs outlined in Annex A, Part II.

> CNs should be recommended for listing in Annex A and Annex C with no specific exemptions.

Hexachlorobutadiene (HCBd)

Intentional production of HCBd is assumed to have ended and alternatives are already in use.

Unintentional releases of HCBd primarily come from production of chlorinated hydrocarbons, production of magnesium, and incineration processes. Control measures include available solvent substitutes, process modifications, and BAT/BEP measures for reducing and eliminating releases from magnesium production and incineration.

> HCBd should be recommended for listing in Annex A and Annex C with no specific exemptions. The BAT/BEP guidelines should be updated so that control measures address all unintentional sources.

Pentachlorophenol and its salts and esters (PCP)

PCP and PCA are detected in air, water, soil and biota throughout the world, including in remote regions. PCP shows log K_{ow} values of 5.12 and 5.18, and PCA had a log K_{ow} value of 5.45 and BCF values of 12,000 – 16,000, meeting bioaccumulation criteria. PCP exceeds criteria for persistence, particularly in sediments and anaerobic water. The observations of PCA in Arctic air and snow as well as the QSAR estimate for the half-life in air (9.8 days) indicate that PCA is persistent in air and can be transported to remote locations. PCP and PCA are highly toxic to aquatic organisms. PCP has been detected in blood serum, urine, amniotic fluid, cord blood, seminal fluid, adipose tissue, and human milk, demonstrating exposure, and therefore potential hazard, to fetuses, infants and adults. High concentrations of PCP in human blood have been reported worldwide; and also in Arctic populations. Exposure to PCP is associated with cancer, particularly hematopoietic cancer, reproductive and developmental toxicities, and interference with thyroid hormones. Prenatal exposure to PCP correlates with worse coordination, less sensory integrity, worse attention, and worse visuomotor integration in children at school age. Compared to other chlorinated compounds, PCP is one of the more dominant contaminants measured in blood plasma. PCP is inextricably linked with dioxin and furan emissions due to the impurities from production processes, and also from the burning of treated wood and transformation in the environment.

> PCP/PCA meets Annex E criteria and should move ahead to Annex F evaluation.

DecaBDE

The measured K_{ow} is 6.27 and half lives in soil and sediment are greater than 6 months. DecaBDE is found in Arctic air, sediment, snow, ice and biota and is widespread in the Arctic food webs. The BMF for terrestrial carnivores and humans is 8 and high biomagnification (BMF=7) is also shown between insects and female frogs. Adverse effects include the fetal/ neonatal nervous system, the liver and the thyroid hormone axis.

> DecaBDE meets the Annex D screening criteria and should move forward to Annex E evaluation.

Dicofol

Dicofol shows BCF values well above 5000. It is persistent in acidic waters, and when major degradates are taken in account, persistent in soils. The half-life in air is estimated to be 3 days and it is found in Arctic air. Dicofol shows high toxicity to aquatic organism in addition to other adverse effects including reproductive toxicity in birds and mammals, and endocrine disrupting effects. In addition dicofol can contain DDT

> Dicofol meets the Annex D screening criteria and should move forward to Annex E evaluation.

Evaluation of PFOS acceptable purposes and specific exemptions

The POPRC should establish an ad hoc working group and terms of reference to undertake the activities requested in paragraph 3 of decision SC-6/4 and paragraph 5 (d) (ii) of decision SC-6/7.

> The Terms of Reference should include taking POPRC recommendations on PFOS in open applications into account (POPRC-8/8).

PFOS alternatives

> The POPRC should endorse the alternatives guidance on PFOS as amended at the meeting and review it at POPRC10 taking into account previous work on PFOS in open applications, intersessional work on PFOS alternatives, and the technical paper on alternatives.

Annex E

The paper covers examples of practices used in Annex E decisions as well as a discussion of open issues in the Committee evaluation process.

> The basic elements of the document could be helpful to decision making in the evaluation process and IPEN is interested in participating in the discussion at POPRC9.

Climate and POPs

The draft guidance provides a draft approach to the consideration of climate change interactions with the chemicals proposed for listing in Annexes A, B and/or C to the Stockholm Convention. The guidance includes recommendations on how to assess the possible impact of climate change on the work of the Committee.

> The POPRC should incorporate consideration about the impacts of climate change in Annex 1b, 1c and Annex F 1c and recommend strengthening the Convention global monitoring plan to reflect climate change effects on POPs.