

## **Children's exposure to semi-volatile organic compounds from indoor environment**

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Semi-volatile organic compounds (SVOCs); such as polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), organophosphate esters (OPEs), phthalate esters (PEs), are used as additives, flame retardants, and plasticizers in many consumer products. These products include electronics, furniture, beds, carpets, paints, toys, and many more. All of these products are mainly used indoors e.g. our homes. Moreover, SVOCs such as polycyclic aromatic hydrocarbons (PAHs) can be formed due to indoor activities e.g. cooking, heating, smoking. Hence, SVOCs are introduced into the indoor environment via emission from products and due to indoor activities. Considering that people spend more than 90% of their time in indoor environments, the indoor environment becomes an important source for exposure to SVOCs. Especially, children are more susceptible to indoor contaminants due to their physical activities and behavior. Within the scope of this study, indoor dust and air samples were collected from children's bedrooms in homes located in Eastern Slovakia. Children's exposure to PCBs, PBDEs, OPEs, PAHs, pesticides, and novel flame retardants was assessed by merging with toxicity information to evaluate the risks from indoor SVOC exposure and to prioritize SVOCs for monitoring in the indoor environments. Furthermore, cumulative anti-androgenic risk assessment was conducted for exposure to PEs since co-occurrence of PEs with common health effects may result in increased risk from indoor PE exposure.