

Efficiency of selected sorbents for eliminating PCBs from soil

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Polychlorinated biphenyls (PCBs) are physically and chemically very stable substances with a serious negative impact on the health of the human organism as well as on the surrounding environment. In addition to acute symptoms in the form of dermatoses or nausea, chronic toxicity is especially serious, in the form of hepato-, nephro-, neuro-, immuno- and other toxicities, including hormonal disorders and disorders of the excretory system. Due to their optimal physico-chemical properties, they were massively produced all over the world. Chemko Strážske - a factory in eastern Slovakia, was also an important producer of these substances. Gradually, after the identification of serious toxic effects on health and the environment, the production of PCBs was suspended worldwide (in Czechoslovakia as one of the last countries in 1984). However, due to the prohibition of production and distribution, a large amount of these substances remained in the premises of the former plant and its surroundings, together with the by-products of their production, as a significant toxicological risk. After the partial elimination of solid waste from the premises of the former factory, the question of cleaning up the environment in the wider area also comes up. These are mainly water and soil from the surrounding area. The present paper will present possible technological procedures that can be helpful in removing this environmental burden from surrounding.

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