

LEACHING OF ORGANIC COMPOUNDS – METHODS, APPLICABILITY AND RESEARCH NEEDS

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Leaching tests can improve the accuracy of risk assessment, provided that true field conditions are simulated. In addition, the methods must be robust, simple to conduct, and have acceptable repeatability and reproducibility. In 2007, the International Organisation for Standardization (ISO) established a series of procedures, as technical specifications (TS), for leaching of contaminants (both inorganic and organic) from soil. However, other promising approaches for determining leaching of organic compounds have also been reported, such as the recirculation column test, developed by DTU in Denmark.

The objectives of this presentation are: (i) give an overview of the available methods for leaching of organic compounds in soil (ii) discuss the usefulness of the equilibrium recirculation column test for determination of the partitioning and mobility of non-volatile hydrophobic organic compounds (HOCs) versus the batch leaching procedure suggested by ISO as a Technical Specification (iii) demonstrate the applicability of results from leaching studies in risk assessments and (iv) point out important areas for further development and research needs.