**Expert Workshop on the Ecotoxicological Risk Assessment of Ionizable Organic Chemicals:  Environmental fate and transport workgroup**

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There is a growing need to develop analytical methods and tools to assess the environmental risks associated with charged, polar and ionisable organic chemicals, such as those used as surface active chemicals, biocides and active pharmaceutical ingredients.  Ionisation of an organic chemical can lead to a change in the sorption behaviour of a chemical, with anionic compounds possibly having lower sorption and cationic compounds experiencing higher binding affinity relative to their neutral counterparts.  Changes in sorption behaviour will have a direct influence on bioavailability.  Modelling the freely dissolved concentration is further complicated by the role of salinity and pH on the sorption of ionised chemicals to organic matter, but also to inorganic soil components (e.g. clay minerals).  Changes in pH can also result in substantial differences in ecotoxicological effects, implying the need to determine pH-specific toxicity data.  As part of an expert workshop on the ecotoxicological risk assessment of ionisable organic chemicals, factors influencing the sorption behaviour and, hence, the bioavailability of these chemicals were investigated.  Here, we present a summary of the key questions addressed by the environmental fate and transport workgroup, who focused primarily on the mechanisms influencing bioavailability. Key questions addressed include an assessment of the primary physicochemical properties that influence environmental distribution; the limitations and relevance of organic carbon-water partitioning; the role of bound residues and their importance with respect to bioavailability and distribution; the role of counterions/ionic strength and pH; an assessment of the appropriateness of current testing methods for applicability to ionisable organics. Finally, recommendations are proposed regarding the development of models that can be used to better estimate environmental fate and distribution