



SC2 - Implementing bioavailability-based Environmental Quality Standards for metals practical and pragmatic approaches

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Abstract

Bioavailability concepts are routinely used in environmental risk assessments of trace elements. In Europe, Australia, Canada and the US bioavailability approaches are used in considering ecological impacts and in Europe, under the Water Framework Directive Environmental Quality Standards that are bioavailability-based have been set. However, bioavailability is a challenging concept to grasp for regulators and the regulated community. There is a need to provide some practical training in regard to how this complex and potentially confusing approach can be applied within regulatory frameworks.

This workshop is introductory, but participants would need to have a reasonable understanding of ecotoxicology, chemistry and risk assessment, especially from a regulatory perspective. The course would cover key scientific foundations around bioavailability, touch on EQSbioavailable derivation and through practical exercises undertake local risk assessments and regulatory compliance using real monitoring data and user-friendly biotic ligand models. Remaining challenges and practical solutions to commonly encountered problems will also be covered along with interpretation of model outputs.

Following attendance on this course participants will be able to undertake risk and compliance assessments and interpret data in regard to trace element bioavailability in a regulatory context.

Course objectives

Facilitate the development of an understanding of the concepts of bioavailability. Provide the skills, confidence and tools to be able to use monitoring data to make bioavailability-based risk and compliance assessment for trace elements.

Course level

Introductory