

A GUIDELINE ASSESSMENT TOOL FOR TRACE ORGANIC COMPOUNDS IN RECYCLED WATER

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BACKGROUND AND RELEVANCE

Guideline determination and compliance assessment for trace organic compounds (TOrcs) is a difficult and challenging exercise due to the very limited number of available guidelines, the complexity of new guideline derivation, and the need to consider multiple types of endpoints such as human health and ecological health and many different categories of exposure.

As an aid to water industry professionals, an easy-to-use tool was developed that allows rapid compliance assessment and identification of lowest or limiting guidelines for an extensive list of several hundred TOrcs.

The tool includes existing published guidelines (which are limited) and an extensive database of new derived guidelines for several hundred priority TOrcs in recycled water. Derived guidelines are not formal guidelines but have been developed using standard international protocols and are used to provide guidance in the absence of published guidelines.

RESEARCH APPROACH

The Guideline Assessment Tool has been developed using Microsoft Excel® graphing and database lookup tools for ease of use. A single input-output page is used to drive the model and can be used to instantly assess compliance for multiple categories of exposure and endpoints for the priority compounds for any given concentration in water. A scroll button allows the user to scroll through TOrcs included in the accompanying databases. New compounds can be added as required using the protocols developed for the project.

Disclaimer: the guideline information in the models is current to 2012.

AFFILIATIONS

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