For the session: Division of Environmental Chemistry: Approaches to Fill Data Gaps for Chemical Sources of Risk

The US EPA CompTox Chemistry Dashboard as a source of data to fill data gaps for chemical sources of risk

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Chemical risk assessment is both time-consuming and difficult because it requires the assembly of data for chemicals generally distributed across multiple sources. The US EPA CompTox Chemistry Dashboard is a publicly accessible web-based application providing access to various data streams on ~760,000 chemical substances. These data include experimental and predicted physicochemical property data, bioassay screening data associated with the ToxCast program, consumer product and functional use information and a myriad of related data of value to environmental scientists and toxicologists. At this stage of development, the public dashboard provides access to almost 20 predicted physicochemical and environmental fate and transport endpoints with full transparency in terms of model performance. Experimental and predicted human and ecological toxicity data are also available, as are *in vitro* to *in vivo* extrapolation dosimetry predictions and predicted exposure and functional use. In parallel to the CompTox Chemistry Dashboard we are developing RapidTox, a web-based application that enables a rapid, flexible and transparent prioritization process for sets of chemicals using several previously used workflows focused on scoring of traditional risk metrics and the inclusion of alternative hazard and exposure estimates. This presentation will give an overview of the CompTox Chemistry Dashboard, RapidTox, our approaches to building transparent and open prediction models, and our efforts to provide access to real time predictions. *This abstract does not necessarily represent U.S. EPA policy.*