Optimizing the Evidence Integration Approach for Hazard Assessment for Chemicals with No Testing Data

Marisa Kreider, Principal Science Advisor
Cardno ChemRisk

Presenter biography

Dr. Marisa Kreider, PhD DABT is a board certified toxicologist and Principal Science Advisor with Cardno ChemRisk where she serves primarily as a toxicologist. Dr. Kreider has over 12 years of experience as a consultant in human health risk assessment. She has managed a variety of project types, including reviewing of toxicological literature for a variety of chemical types (including materials in tire manufacture, VOCs, automobile exhausts, and particulate matter, etc.); designing, managing and interpreting toxicity studies; conducting or critiquing dose response assessments for chemicals or particulate; and conducting quantitative or qualitative risk assessments of consumer products. Dr. Kreider has significant expertise in product stewardship, and has experience assisting clients in navigating regulatory issues, hazard communication, and other product stewardship challenges. She serves as a member of the Product Stewardship Council for a U.S.-based chemical manufacturer to provide toxicology support and advice. Dr. Kreider received her Ph.D. from the Department of Pharmacology and Cancer Biology at Duke University.

Presentation abstract

Many chemicals on the market have not been tested for health hazards. Product stewardship professionals are often faced with challenges in estimating the likelihood for health hazards for such chemicals. Hazard communication and regulatory approval require innovative strategies to improve confidence in decisions about hazard potential. This presentation will review strategies and tools for evaluating the potential for hazards associated with chemicals with little toxicity data. Since no tool is perfect a focus is integrating information across tools to support informed decision-making. In particular, (Quantitative) Structure Activity Relationship ([Q]SAR) software, read-across and analog analysis tools will be presented, along with a framework for interpreting data across the various lines of evidence. Examples of chemicals with limited available data will be used to demonstrate the approach. In addition, recommendations on how to use such information for hazard communication, toxicity test planning, research and development priortization, and regulatory engagement, will also be discussed.