



Hot Topics

The Sapphire Group Addresses The Voluntary Children's Chemical Evaluation Program

In December 2000, the EPA announced the Voluntary Children's Chemical Evaluation Program (VCCEP). The program is a pilot effort in which 23 chemicals (such as acetone, benzene and toluene) that have been previously been detected in environmental and biomonitoring programs will be examined closer as to the risks associated with children. Under this program companies and/or consortia volunteer to develop exposure assessments, toxicity assessments and identify data needs to assess the potential exposure and risks to children. The program is designed as a three tiered approach with Tier 1 (Peer Consultation Document) due this December.

The Sapphire Group is currently helping several organizations through the VCCEP process. Combining the integration of data with their expert knowledge and understanding how a chemical acts once inside the body allows The Sapphire Group to provide the clearest understanding of the effects of these chemicals. For the most part, children's exposure and risk assessment are based on extrapolation of data from studies of adults. However, it has been shown that children are not just small adults; for example, their metabolism operates at a higher rate. Included in the overall assessment is careful consideration of not only metabolism, but also kinetics of distribution, absorption and excretion.

The Sapphire Group will manage (1) the collection, assembly and interpretation of all relevant data; (2) the use of fate and transport models to estimate exposure levels when monitoring data are unavailable; (3) use of distributional (Monte Carlo) methods to address uncertainty and variability in exposure estimates, and conduct sensitivity analyses to identify key parameters and assumptions to prioritize the collection/generation of additional data; and (4) conduct and presentation of each risk assessment in a cogent and convincing manner, while maintaining our client's commitment to protect the health and welfare of children.

The VCCEP program will continue on to Tiers 2 & 3 with increasing degrees of complexity in terms of quantity and quality of the data and evaluation that will be required. For chemicals that require further evaluation, the program will continue over the next several years. In addition, new chemicals will be added to the list and they will be processed similarly.