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CHEMICAL DATA GAPS PUSH OEHHA SUPPORT FOR GREEN CHEMISTRY BILL

The health hazard office is supporting recommendations in a recent University of California (UC) report promoting the advancement of a so-called "green chemistry" policy that is expected to be pushed in legislation next year. The office agrees with the report's findings that data gaps are hampering regulators' efforts to identify toxicity characteristics of many chemicals.

The Office of Environmental Health Hazard Assessment's support for an improved chemical information database could influence the fate of green chemistry legislation expected to be introduced early next year. But chemical industry groups argue they already engage in green chemistry practices and say chemical toxicity data is largely already available.

The Department of Toxic Substances Control Oct. 24 held a "Green Chemistry Symposium" to discuss what direction California should take regarding more environmentally friendly chemical manufacturing processes. Also discussed was the controversial UC report submitted earlier this year to the Senate Environmental Quality Committee and Assembly Environmental Safety & Toxic Materials Committee. The report, Green Chemistry in California: A Framework for Leadership in Chemicals Policy and Innovation, includes two years of research and analysis on the status of existing California and federal chemical policies.

The report recommends the state seek several policies, including providing rewards to businesses that invest in green chemistry; improving the flow of chemical toxicity and other data through the supply chain and to the public; and implementing measures to improve government's ability to identify and reduce chemical hazards in the state.

Data gaps described in the report include the absence of standardized, robust information about the hazards of chemicals in commerce, which impedes government from identifying and acting on chemical hazards.

Melanie Marty, an OEHHA scientific affairs division manager, said at this week's symposium that the database the office uses to analyze the toxicity of many chemicals includes significant data gaps. These gaps have impacted OEHHA's ability to work with other Cal/EPA agencies to evaluate the environmental fate of chemicals, she said.

This problem recently occurred when the air board came to OEHHA for an opinion on a chemical the board was considering as a substitute for the toxic dry cleaning agent, perchloroethylene, which the board is phasing out, Marty said. "The toxicity database is wimpy -- it has to include developmental and neurotoxicity [data]. These are areas that miss the boat."

An OEHHA spokesman said after the meeting that OEHHA typically deals with limited data whenever it assesses the health effects of chemicals. "Only occasionally, such as with lead, do we have the luxury of having a robust data set" the spokesman said. "The norm for us is to conduct an assessment with gaps in information on the health effects of a chemical."

There is often relatively little information on the effects of specific chemicals on children, the spokesman added. OEHHA toxicologists normally compensate for data gaps by using uncertainty factors in risk assessments. "The more data we can get on a chemical, the more precise our risk assessment and the less we have to rely on uncertainty factors."

A chemical industry source would not comment specifically about the points raised by OEHHA, but stated there is already a wealth of health and safety information being made publicly available through various programs, such as the High Production Volume (HPV) Challenge program at U.S. EPA. "The HPV chemicals will represent approximately 95%, by volume, of the chemicals currently in commerce in the U.S.," the source said. HPV chemicals are those manufactured in or imported into the U.S. that equal a volume of at least one million pounds per year.

The EPA program involves companies volunteering data summaries of existing information and testing to fill any data gaps. For each of the HPV chemicals covered in the program, industry provides 17 types of information, including studies assessing acute toxicity, subchronic toxicity, genotoxicity, and developmental and reproductive toxicity, the industry source said.

Details of potential California green chemistry legislation in 2007 remain unclear. Bruce Jennings, a Senate Environmental Quality Committee consultant, said at the meeting he does not have much to reveal. But he does have "some clues" about what the Senate committee may be inclined to support.

Jennings said the "elephant in the room" is the inability of Cal/EPA to fully analyze about 1,000 key chemicals. "We have at Cal/EPA scientists saying we have these sorts of chemical problems all the time," he said. "It does behoove us to work together, especially on this group of chemicals where so often Cal/EPA scientists are left in the netherworld for lack of information."

OEHHA Director Joan Denton said earlier in the meeting that OEHHA has relied solely on Proposition 65 as a tool to pursue green chemistry concepts of regulation. Prop. 65 requires OEHHA to publish at least annually a list of chemicals known to the state to cause cancer or reproductive toxicity. As part of this process, OEHHA is charged with periodically reviewing risk assessments of chemicals already listed by authoritative bodies or for chemicals of concern identified by advisors, among other tasks.

Jennings said Prop. 65 includes a large group of chemicals where information is lacking, adding this area must be addressed. "Denton is right to rely on 65, but it doesn't begin to touch on the larger group of chemicals -- and what do we do about that? We need to devise something about that chemical universe."

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