

DISPUTE OVER METHYL BROMIDE ALTERNATIVE PROMPTS DEBATE ON FLUORIDE

EPA's approval of a fluoride-based alternative to the ozone-depleting pesticide methyl bromide is triggering a broader fight over agency data justifying the use of fluoride to treat drinking water and combat pests — a dispute that could be heavily influenced by a major new scientific report expected in the coming weeks.

The fight also highlights EPA's struggle to find viable alternatives for methyl bromide under the Montreal Protocol, under which the United States agreed to phase out the pesticide even though it has repeatedly pushed for exemptions for farmers to use the pesticide in "critical" situations.

The dispute centers on EPA's effort to support dual uses of fluoride as an alternative to methyl bromide and as a drinking water additive used to prevent tooth decay. As part of the treaty's implementation, EPA is allowing a type of fluoride to be used instead of methyl bromide to eradicate rodents, insects and other pests when fumigating non-residential structures, restaurants, rail cars and trucks. EPA has also approved the substance's use on more than 40 types of food.

At the same time, state and local governments authorize the use of fluoride to treat drinking water, which the dental industry supports as a safe and effective way to prevent tooth decay. But some scientists, environmentalists and union officials, who represent EPA staff, say a growing body of evidence of bone pathologies, nerve damage and thyroid suppression from fluoride exposure should lead EPA to impose tighter restrictions on its use.

The National Academy of Sciences, at the request of EPA, is expected in February to issue an authoritative report on drinking water fluoridation, the first by the academy on the topic in over a decade. The study will examine whether current drinking water standards for fluoride are adequate in light of new scientific data published since the academy's last review in 1993. The findings could lead to a new debate over the data EPA cited to justify the use of fluoride as a methyl bromide alternative and in the treatment of drinking water.

Specifically, environmentalists dispute the scientific basis of EPA's 2004 approval of the pesticide sulfuryl fluoride, which is manufactured by Dow AgroSciences, LLC, claiming the agency used a flawed risk assessment that violates the Food Quality Protection Act (FQPA). The groups Fluoride Action Network, Beyond Pesticides and Environmental Working Group (EWG) are now challenging the decision through administrative means, which an EWG source says eventually could lead to litigation. The activists allege that EPA ignored data on the risks of sulfuryl fluoride because the agency did not want to undermine its threshold limits on fluoridation of drinking water.

EPA, in approving sulfuryl fluoride, set an allowable dosage for infants that is five times higher than for adults, leading activists to allege that the agency is violating FQPA mandates that say the agency should issue more protective standards for children's exposure to pesticides. EPA says infants can be exposed to greater fluoride levels than adults because they cannot be exposed to crippling skeletal diseases before the age of eight.

In addition, the activists are concerned that EPA ignored newer research on fluoride and did not require Dow to perform adequate developmental neurotoxicity studies on the pesticide.

"EPA has set the highest tolerances for residues of fluoride in its history," the activists say in a letter to EPA last month, requesting an administrative hearing under the Federal Food, Drug & Cosmetic Act. "Putting another new source of fluoride into the daily lives of Americans is extremely unwise because it is clear that many children, and adults, are already overexposed." *Relevant documents are available on InsideEPA.com.*

California is the only state that has not approved sulfuryl fluoride use on a non-emergency basis, with the state's Environmental Protection Agency saying, "It is entirely possible that sulfuryl fluoride has a long or very long atmospheric lifetime" and should be considered a greenhouse gas. But other states, most recently New York, have said they are satisfied with EPA's and Dow's review of the substance.

Dow and EPA officials dispute the activists' accusations, saying the agency's approval of the pesticide was based on rigorous scientific assessments of the compound's possible risks. EPA says the risk estimates for all populations, including infants, are below the level of concern established by the health division of the agency's pesticide office. Dow says the approval of ProFume, the product name for sulfuryl fluoride, was based on two-and-a-half years of extensive studies that repeatedly addressed the activists' concerns.

"The [EPA] Health Effects Division notes that based on the assumptions in these assessments, sulfuryl fluoride is an insignificant source of fluoride relative to that coming from water, toothpaste and background residues in food," the agency says in response to the activists' comments. The agency says its risk assessment indicated that estimated exposure from water, air and other means was "below the maximum considered to be safe and that the use of sulfuryl fluoride accounted for less than two percent of the total fluoride exposure."

EPA officials would not say when they would respond to the activists' request for a hearing, but a decision against the environmentalists could eventually lead to litigation that could block continuing EPA efforts to approve an array of methyl bromide alternatives.