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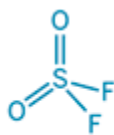
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Regulation

Pesticide Controversy

Activists express concern over field-test request for sulfuryl fluoride because of its global-warming potential

[Cheryl Hogue](#)



Sulfuryl fluoride

Environmental activists are urging the [Environmental Protection Agency](#) to turn down a request from [Dow AgroSciences](#) to field-test a pesticide that is a potent greenhouse gas.

The chemical in question is sulfuryl fluoride, a compound used for more than 40 years to fumigate buildings. It is increasingly being substituted for methyl bromide, a pesticide that depletes stratospheric ozone and is being phased out internationally ([C&EN, Feb. 2, page 29](#)).

In March, Dow AgroSciences asked EPA for an experimental-use permit to field-test sulfuryl fluoride as a soil fumigant. According to the application it submitted to the agency, Dow AgroSciences wants to use 32,500 lb of the product on fields in California, Florida, Georgia, and Texas where tomatoes, peppers, squash, cucumbers, or melons are grown.

EPA issues experimental-use permits to allow a company to field-test new pesticides—or older products for new applications—before they are registered and commercialized.

Now, six environmental groups, including the [Sierra Club](#) and the [Pesticide Action Network North America](#), are asking EPA to reject Dow AgroScience's request. They cite a paper published in late 2008 that calculated sulfuryl fluoride's global-warming potential over a century to be 4,780 times that of carbon dioxide ([J. Phys. Chem. A **2008**, *112*, 12657](#)). Using this number, the organizations estimate that if 10% of the sulfuryl fluoride in the proposed field tests is released into the atmosphere, it would be the equivalent of emitting 15.5 million lb of CO₂. The groups are also worried about the chemical's toxicity ([C&EN, Sept. 4, 2006, page 34](#)).

Dow AgroSciences downplays the global-warming concerns. "There is a high degree of uncertainty about sulfuryl fluoride's global-warming potential, and estimates vary significantly from paper to paper," the company said in a statement. "Regardless of which estimates are used, compared with the magnitude of emissions from fossil fuel use, deforestation, and other sources, the total amount of sulfuryl fluoride released to

the atmosphere from authorized treatments," which are now restricted to fumigation of buildings, "is relatively small."

For its part, EPA says it will take into consideration global-warming and toxicity issues as it reviews Dow AgroScience's application for the field tests. "EPA anticipates conducting a human health risk assessment and an ecological risk assessment" for sulfuryl fluoride, the agency said in a statement.

An EPA spokesman tells C&EN that he does not know when the agency is expected to rule on Dow AgroScience's application.

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