June 2005

CHEMICAL REGULATION

Options Exist to Improve EPA's Ability to Assess Health Risks and Manage Its Chemical Review Program

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Highlights

Highlights of GAO-05-458, a report to congressional requesters

Why GAO Did This Study

Chemicals play an important role in everyday life, but some may be harmful to human health and the environment. Chemicals are used to produce items widely used throughout society, including consumer products such as cleansers, paints, plastics, and fuels, as well as industrial solvents and additives. However, some chemicals, such as lead and mercury, are highly toxic at certain doses and need to be regulated because of health and safety concerns. In 1976, the Congress passed the Toxic Substances Control Act (TSCA) to authorize the Environmental Protection Agency (EPA) to control chemicals that pose an unreasonable risk to human health or the environment.

GAO reviewed EPA's efforts to (1) control the risks of new chemicals not yet in commerce, (2) assess the risks of existing chemicals used in commerce, and (3) publicly disclose information provided by chemical companies under TSCA.

What GAO Recommends

GAO recommends that the Congress consider providing EPA additional authorities under TSCA to improve its ability to assess chemical risks and that the EPA Administrator take several actions to improve EPA's management of its chemical program. EPA did not disagree with GAO's recommendations but provided substantive comments.

www.gao.gov/cgi-bin/getrpt?GAO-05-458.

To view the full product, including the scope and methodology, click on the link above. For more information, contact John Stephenson at (202) 512-6225 or stephensonj@gao.gov.

What GAO Found

EPA's reviews of new chemicals provide limited assurance that health and environmental risks are identified before the chemicals enter commerce. Chemical companies are not required by TSCA, absent a test rule, to test new chemicals before they are submitted for EPA's review, and companies generally do not voluntarily perform such testing. Given limited test data, EPA predicts new chemicals' toxicity by using models that compare the new chemicals with chemicals of similar molecular structures that have previously been tested. However, the use of the models does not ensure that chemicals' risks are fully assessed before they enter commerce because the models are not always accurate in predicting chemical properties and toxicity, especially in connection with general health effects. Nevertheless, given the lack of test data and health and safety information available to the agency, EPA believes the models are generally useful as screening tools for identifying potentially harmful chemicals and, in conjunction with other information, such as the anticipated potential uses and exposures of the new chemicals, provide a reasonable basis for reviewing new chemicals. The agency recognizes, however, that obtaining additional information would improve the predictive capabilities of its models.

EPA does not routinely assess the risks of all existing chemicals and EPA faces challenges in obtaining the information necessary to do so. TSCA's authorities for collecting data on existing chemicals do not facilitate EPA's review process because they generally place the costly and time-consuming burden of obtaining data on EPA. Partly because of a lack of information on existing chemicals, EPA, in partnership with industry and environmental groups, initiated the High Production Volume (HPV) Challenge Program in 1998, under which chemical companies began voluntarily providing information on the basic properties of chemicals produced in large amounts. It is unclear whether the program will produce sufficient information for EPA to determine chemicals' risks to human health and the environment.

EPA has limited ability to publicly share the information it receives from chemical companies under TSCA. TSCA prohibits the disclosure of confidential business information, and chemical companies claim much of the data submitted as confidential. While EPA has the authority to evaluate the appropriateness of these confidentiality claims, EPA states that it does not have the resources to challenge large numbers of claims. State environmental agencies and others are interested in obtaining confidential business information for use in various activities, such as developing contingency plans to alert emergency response personnel of the presence of highly toxic substances at manufacturing facilities. Chemical companies recently have expressed interest in working with EPA to identify ways to enable other organizations to use the information given the adoption of appropriate safeguards.