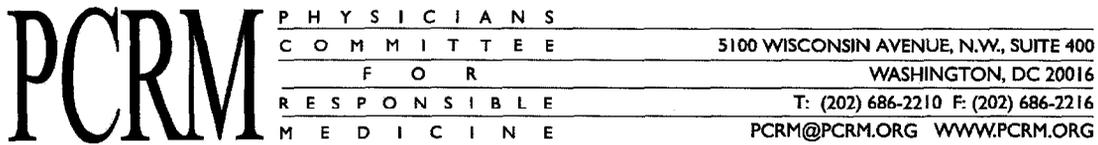


201-15298



May 24, 2004

Michael O. Leavitt, Administrator  
US Environmental Protection Agency  
Ariel Rios Building  
Room 3000, #1101-A  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

04 MAY 25 AM 10:49

Subject: Comments on the HPV test plan for allyl alcohol

Dear Administrator Leavitt,

The following are comments on the HPV test plan for allyl alcohol (CAS no. 107-18-6), submitted by Lyondell Chemical Company (Lyondell). These comments are submitted on behalf of the Physicians Committee for Responsible Medicine, People for the Ethical Treatment of Animals, the Humane Society of the United States, the Doris Day Animal League, and Earth Island Institute. These animal, health and environmental protection organizations have a combined membership of more than ten million Americans.

Lyondell proposes to conduct a developmental toxicity test, OECD No. 414. This will kill at least 1,300 animals. However, there is no need for Lyondell to carry out OECD No. 414. Although Lyondell states that no information is available regarding the developmental toxicity of allyl alcohol, we have found several studies that may yield important information. Seven references give information about the teratogenic or embryotoxic effects of allyl alcohol and related compounds (McLaughlin et al., 1964; Roschlau and Rodenkirchen, 1969; Davis and Hidu, 1969; Slott and Hales, 1984; Slott and Hales, 1985; Jenkinson et al., 1987; Schardein, 1993). Slott and Hales (1985) conduct a full analysis on allyl alcohol and its two metabolites, acrylic acid and acrolein, including viability, fertility, mortality, and effects on the sense organs, the nervous system, the cranium and face, homeostasis, the musculoskeletal system, and the urogenital system. These studies should be included in Lyondell's test plan and the data used to eliminate the proposed tests, saving over 1300 animals. It is imperative that ALL available data be utilized whenever possible to eliminate new tests using animals, in order to remain faithful to the October 1999 agreement between the EPA, HPV participants, and members of the public. The letter detailing the agreement stated, in part

(1) In analysing the adequacy of existing data, participants shall conduct a thoughtful, qualitative analysis rather than use a rote checklist approach. Participants may conclude that there is sufficient data, given the totality of what is known about a chemical, including human experience, that certain endpoints need not be tested

(8)... As with all chemicals, before generating new information, participants should further consider whether any additional information obtained would be useful or relevant.

The entire letter detailing the agreement can be read at  
<http://www.epa.gov/chemrtk/ceoltr2.htm>.

Further, since Lyondell states in their test plan that allyl alcohol is metabolized into acrolein and acrylic acid, the effects of these chemicals should also be used to inform Lyondell's efforts at hazard characterization. Both acrolein and acrylic acid have been studied extensively (Slott et al., 1985; Neeper-Bradley et al., 1997; Heck et al., 1985; Hellwig et al., 1997) and acrolein is a known developmental toxicant (Slott et al., 1985). Indeed, acrolein is registered as an EPA-approved aquatic herbicide and a significant database is already on file at the EPA. A good summary is available at <http://www.epa.gov/iris/subst/0364.htm>. Since acrolein is a metabolite of allyl alcohol, these data should also be used. Any further testing on allyl alcohol's developmental effects will not yield any new useful information and does not follow the October 1999 principles to reduce animal use wherever possible. In a screening-level program like HPV, a positive result does not require further testing.

If Lyondell insists on carrying out another developmental test on allyl alcohol, they should *not* be conducting an OECD No. 414. Rather OECD No. 421, a combined developmental and reproductive screening toxicity test method, has been approved by the EPA for developmental toxicity data in the HPV program. Nearly every participant with developmental data gaps in the HPV program uses a combined screen instead of the full developmental toxicity study. OECD No. 421 will kill approximately 675 animals; half the number of animals who will be killed should Lyondell conduct an OECD No. 414.

Thank you for your attention to these comments. I can be reached at 202-686-2210, ext. 335 or by email at [kstoick@pern.org](mailto:kstoick@pern.org).

Sincerely,

Kristie Stoick, M.P.H.  
Research Analyst

Chad B. Sandusky, Ph.D.  
Director of Research

## References

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