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January 27, 2004

Michael O. Leavitt, Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building, 1101-A  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460

Subject: Comments on the HPV Test Plan for 4,4'-oxydi(benzenesulfonohydrazine)

Dear Administrator Leavitt:

The following comments on Crompton's test plan for the chemical 4,4'-oxydi(benzenesulfonohydrazine) 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 health, animal protection, and environmental organizations have a combined membership of more than ten million Americans.

The Crompton Corporation submitted its test plan on August 27, 2003, for the chemical 4,4'-oxydi(benzenesulfonohydrazine) (CAS No. 80-51-3), which is used as a chemical blowing agent in the manufacture of foam rubber and plastic products. A number of physicochemical, fate, and toxicity studies have been conducted with 4,4'-oxydi(benzenesulfonohydrazine). Crompton has compiled existing data from a variety of sources and has utilized structure activity relationship programs and models, specifically ECOSAR, to estimate toxicity to fish and other aquatic organisms. We commend this approach for estimating ecotoxicity; the EPA has also encouraged the use of this method (EPA, 2002).

At this time, however, we would like to point out that this test plan appears incomplete and lacks significant detail and efforts to minimize animal testing do not appear to have been taken seriously. We question Crompton's assessment that a combined reproductive/developmental toxicity test (OECD 421) is needed to meet the requirements of the HPV program. If conducted, this test will result in the death of at least 675 animals.

We are concerned that little attempt has been made to categorize 4,4'-oxydi(benzenesulfonohydrazine) with similar compounds. Specifically, Crompton did not specify any structurally similar compounds to 4,4'-oxydi(benzenesulfonohydrazine) in its test plan, only mentioning the ECOSAR class of chemicals in the Robust Summaries (pg. 5). We recommend that Crompton identify the compounds that can be

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expected to be of similar toxicity to 4,4'-oxydi(benzenesulfonohydrazine), as data for similar chemicals may be used to bridge data gaps for both reproductive and developmental toxicity endpoints. For instance, PCRM has identified two embryotoxicity studies on benzenesulfonyl hydrazine (Korhonen *et al.*, 1982; Korhonen *et al.*, 1983), a compound structurally related to 4,4'-oxydi(benzenesulfonohydrazine), as noted by the American Conference of Governmental Industrial Hygienists (ACGIH, 2001). We are surprised that the sponsor failed to identify this and other structurally related compounds and we strongly urge Crompton to review the toxicity data for these chemicals in order to avoid separate and/or duplicative testing for reproductive and developmental toxicity endpoints. Duplicative studies violate the basic tenets of animal welfare and the HPV program. In keeping with animal welfare principles set forth by the EPA, including EPA's stated goal that HPV participants "maximize the use of existing and scientifically adequate data to minimize further testing" (Wayland, 1999), the EPA should ask Crompton to examine all existing data before deciding whether to conduct its own reproductive/developmental tests. Without this analysis, it is otherwise completely unwarranted to conduct further, unreliable animal tests, which would kill many animals and only serve as a "check-the-box" exercise.

Lastly, the sponsor refers to this chemical by the name Celogen OT. We are unclear as to whether Celogen OT is a synonym for 4,4'-oxydi(benzenesulfonohydrazine), or the commercial name of the product. Also, the sponsor does not mention the location or process by which this chemical is made, nor is the potential for human or environmental exposure addressed in this test plan. Based on all the aforementioned considerations, we request that EPA defer comments on Crompton's proposal and the sponsor incorporate the above revisions into a new and improved test plan. Thank you for your attention to these comments. I can be reached at 202-686-2210, ext. 327 or by email at [meven@pcrm.org](mailto:meven@pcrm.org).

Sincerely,

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Research Analyst

Chad Sandusky, Ph.D.  
Director of Toxicology Research

## References

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