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Subject Environmental Defense comments on 2-Methyl-2-methylthiopropanal Oxime or Aldicarb Oxime (CAS# 1546-75-9)

(Submitted via Internet 1/3/05 to [oppt.ncic@epa.gov](mailto:oppt.ncic@epa.gov), [hpv.chemrtk@epa.gov](mailto:hpv.chemrtk@epa.gov), / [boswell.karen@epa.gov](mailto:boswell.karen@epa.gov), [chem.rtk@epa.gov](mailto:chem.rtk@epa.gov), [MTC@mchsi.com](mailto:MTC@mchsi.com), and [george.rusch@honeywell.com](mailto:george.rusch@honeywell.com))

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for **2-Methyl-2-methylthiopropanal Oxime or Aldicarb Oxime (CAS# 1546-75-9)**.

Honeywell International Inc., in response to EPA's High Production Volume (HPV) Chemical Challenge, has submitted robust summaries and a test plan describing available data for 2-methyl-2-methylthiopropanal oxime, or aldicarb oxime (ADO).

The test plan submitted for this chemical provides a very brief description of limited background information and available data for ADO. It is stated that ADO is a chemical intermediate used exclusively in the production of carbamate pesticides and that it is produced by Honeywell for only one customer. It is not stated whether that customer is on-site (presumably not). Both Honeywell and Bayer AG, the sole customer for ADO, are international companies with many production sites, but unless they are immediately adjacent, all the ADO produced and sold to Bayer is transported to one or more other sites. Thus, it appears that there is potential for significant releases of ADO into the environment as the result of an accident in transport. Given this and the facts that ADO does not readily degrade in the environment and has the potential for bioaccumulation, we believe that some of the required SIDS elements should be addressed in more detail by providing more recent studies or at least computer estimations where acceptable under the program. For example, the test plan text and matrix indicate that no photodegradation data are available, yet no studies are planned. At the very least, an estimate of photodegradation could easily be provided by the use of an EPA approved computer model. Better data for a number of other SIDS elements could as easily -- and should -- be provided.

Our review of the robust summaries indicates that a number of SIDS elements were estimated by calculations or computer models, but this is not noted in the matrix provided in the test plan.

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As a chemical intermediate, it is not surprising that ADO is not a data-rich chemical. Virtually all of the references cited are internal company documents or documents submitted to the EPA. Thus, very little of the background data on ADO is available to the public. This is unfortunate, but this situation could be remedied in part by the submission of more concise presentation of the robust summaries. The present robust summaries appear to provide adequate descriptions of all available studies but do not clearly differentiate between those of sufficient and insufficient quality for use in satisfying a given SIDS element. Honeywell International and the consultant that prepared this submission, Industrial Health Foundation, should be aware that only a single study, preferably the best study available, is required to address each SIDS element. Thus, it is both unnecessary and confusing to include summaries of studies that are clearly unacceptable even though they are noted as being "unreliable".

Other comments:

1. It is interesting to note that the letter of submission is dated Dec. 5, 2003 and stamped as received on August 20, 2004. This is particularly relevant as the developmental toxicity studies that were not available at the time of submission were to have been conducted in 2004. If that study is now available, a summary should be included in a revised submission.
2. This submission provides neither a chemical nor structural formula for ADO as requested in the HPV guidelines.
3. This submission is correct to note that oral or dermal LD<sub>50</sub>s determined using ADO administered in oil are most probably inaccurate due to its high solubility in the oil, much of which was unabsorbed. This fact is supported by the much greater toxicity of ADO when inhaled.
4. The first few paragraphs of this test plan contain several caveats and statements that raise concern that the preparer of this submission is not as confident of the information regarding the safety of the production and use of ADO as might be desired:

Paragraph 1 -This reaction is "believed" to occur in a sealed system.

Paragraph 2 -ADO is "primarily" used by industrial workers experienced in handling of substances of greater toxicity.

Paragraph 3 -Environmental releases are limited to "fugitive" emissions.

In summary, this is a weak and somewhat confusing submission that could be greatly improved with a minimum of additional effort. It appears that most of the data to address the required SIDS elements are available or could easily be generated, or that appropriate studies may be in progress. Thus, we recommend that a revised and enhanced submission be prepared when the developmental toxicity studies are complete.

Thank you for this opportunity to comment.

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