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Subject: Environmental Defense comments on Trichloro-s-triazinetriene (CAS# 87-90-1)

(Submitted via Internet 12/17/03 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, luciarg@msn.com, gwright@biolabinc.com, and geripest@aol.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Trichloro-s-triazinetriene (CAS# 87-90-1).

The test plan and robust summaries on trichloro-s-triazinetriene (TSTT) were submitted by the Isocyanurate Industry Ad Hoc Committee, comprised of 11 member companies. While not strictly required, information on the uses of TSTT would be extremely helpful in evaluating the likelihood of environmental releases or worker or consumer exposures. We would encourage the sponsors to include such information in the test plan.

The chemical name suggests that it might be an Atrazine pesticide. Is this correct?

The sponsors propose to use a surrogate, isocyanuric acid, to fulfill many of the SIDS endpoints and they state that no additional studies are needed. Use of this surrogate is not justified based on the information made available in this submission. We, therefore, recommend that the sponsor conduct studies on TSTT itself to address the full range of environmental fate and pathway endpoints as well as the genetic toxicity and reproductive/ developmental toxicity endpoints. For other endpoints there already are data available on TSTT.

Specific comments are as follows:

We have numerous concerns regarding the proposed use of isocyanuric acid as a surrogate for TSTT:

a) The sponsors state in their cover letter that EPA agreed in the 1992 registration documents that "isocyanuric acid can represent all the chlorinated isocyanurates for the purpose of conducting metabolism, subchronic, chronic, developmental and mutagenic studies." We find this hard to believe based on the information provided in the HPV submission. If there is a more convincing justification, it should be made publicly available

b) The cover letter, test plan and robust summaries total 128 pages. Yet they fail to provide the structures of TSTT and its proposed surrogate, information essential to evaluating the proposal to use a surrogate chemical.

c) The sponsors repeatedly state in the robust summaries that TSTT is unstable in the environment because the available chlorine moiety is rapidly reduced, and hence that isocyanuric acid or its salts can be used as a surrogate for TSTT. No actual data are provided to support these claims, however, and the toxicological relevance of these statements is not supported. It appears that HOCl is liberated in aqueous environments, but

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no information is provided on this or other degradation products. Since degradation to cyanuric acids is the claimed justification for use of it as a surrogate, information on the complete degradation pathways would need to be provided in the HPV submission.

d) Toxicokinetic information is supplied on the cyanuric acids, but no such information appears to be available on TSTT. This is critical for any evaluation of the suitability of using cyanuric acids as a surrogate for TSTT in mammalian toxicity studies.

e) The robust summary states that HOCl, a degradation product of TSTT, is highly reactive. Highly reactive molecules are frequently toxic; the toxicity of HOCl should be included in the test plan and robust summaries as part of any justification for use of a surrogate.

f) The robust summary states that no photodegradation of TSTT occurred in a 30-day test period. This seems to indicate that TSTT can be stable in the environment under at least some conditions, and further argues against the use of cyanuric acid, by itself, as a surrogate for TSTT.

g) Aquatic toxicity data presented in the robust summaries indicate that TSTT is over 1000 times more toxic than the proposed cyanuric acid surrogates. If this is the case, how can the use of the cyanuric acids as a surrogate be justified for other aquatic toxicity endpoints?

h) Acute toxicity data in mammals indicate that TSTT is at least 10 times more toxic than the proposed cyanuric acid surrogates. If this is the case, how can the use of the cyanuric acids as a surrogate be justified for other mammalian toxicity endpoints?

Thank you for this opportunity to comment.

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