

201-15093

Anh Nguyen

02/11/04 11:55 AM

To: NCIC HPV@EPA

CC:

Subject: Environmental Defense comments on Tris
(4-t-butyl-3-hydroxy-2,6-dimethylbenzyl)-s-triazine-2,4,6-(1H,3H,5H) trione (CAS#
40601-76-1)

----- Forwarded by Anh Nguyen/DC/USEPA/US on 02/11/2004 11:50 AM -----



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02/11/2004 11:40 AM

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Boswell/DC/USEPA/US@EPA, Randy_Deskin@gm.Cytec.com

cc: MTC@mchsi.com, kflorini@environmentaldefense.org,
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Subject: Environmental Defense comments on Tris
(4-t-butyl-3-hydroxy-2,6-dimethylbenzyl)-s-triazine-2,4,6-(1H,3H,5H) trione (CAS#
40601-76-1)

(Submitted via Internet 2/11/04 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov,
boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, and
Randy_Deskin@gm.Cytec.com)

Environmental Defense appreciates this opportunity to submit comments on
the robust summary/test plan for Tris
(4-t-butyl-3-hydroxy-2,6-dimethylbenzyl)-s-triazine-2,4,6-(1H,3H,5H) trione
(CAS# 40601-76-1).

Cytec Industries, Inc., in response to EPA's High Production Volume
Challenge, has submitted Robust Summaries and a Test Plan describing
available data and proposed additional studies for Tris
(4-t-butyl-3-hydroxy-2,6-dimethylbenzyl)-s-triazine-2,4,6-(1H,3H,5H)
trione, marketed commercially as Cyanox 1790. Our review of this
submission indicates the Test Plan and Robust Summaries are well-organized
and well-written to provide appropriate background information and concise
descriptions of available data that address SIDS elements required under
EPA's HPV Challenge. Background information in the Test Plan clearly
describes the production of this chemical in a closed system, minimizing
potential for worker exposure, and its use as an antioxidant in numerous
polymers. The Test plan also provides data to support the low toxicity of
this chemical in the systems tested.

Many of the polymers in which the chemical is used may be found in consumer
products; however, Cyanox 1790 is actually melt-soluble in the polymer,
which the sponsor maintains limits potential for its release. Its lack of
migration from the polymers in which it is used has been confirmed in one
of the few reports on this compound that have been published in the open
literature (see citation below), thus we are relatively confident that
there is low potential for human or environmental exposure.

Our review of the matrix of SIDS elements versus available data for Cyanox
1790 presented in the Test Plan and the Robust Summaries provided indicates
that most of the SIDS elements have been addressed by adequate studies.
(It is unfortunate that these studies are internal company documents, but
we understand that academic interest in compounds appearing to have such
low toxicity and potential for release into the environment is limited and
such studies are frequently not published. We would point out that one
study of the release of this and other compounds from polymers in contact

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with food has been published (see citation below). We think results of this study should be discussed in the text of the Test Plan and that it should be cited in the list of references.)

According to the Test Plan, the only SIDS elements not currently addressed by adequate studies are water solubility and developmental toxicity, and additional studies are proposed for these elements. We agree with this proposed additional testing; however, we think it would also be appropriate to confirm that Cyanox 1790 is not toxic to aquatic plants. That is, although it is apparent that Cyanox 1790 has low toxicity to animals and appears to have limited water solubility (computer modeling predicts water solubility of 2 mg/l), it is still possible that this chemical could be toxic to algae. Thus, in addition to confirmation of water solubility and studies of developmental toxicity, we think that toxicity to algae should be determined by actual experimentation as well.

Citation:

"Residue and release of antioxidants and ultraviolet stabilizers in polyethylene products in contact with foodstuffs," Kawamura Y., Miura, M., Sugita, T., Yamada, T. Journal Of The Food Hygienic Society Of Japan 38 (1), 1997, 27-33. [Japanese] [BIOSIS]

Thank you for this opportunity to comment.

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