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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

FEB 9 1993

MEMORANDUM

Subject: Data Call-In for Hexachlorobenzene and Pentachlorobenzene
in Technical Atrazine; Waiver Request. DP Barcode
D186540. MRID No. 42583101. CBRS No. 11184.

From: Stephen Funk, Ph.D., Chemist *S. A. Funk*
Special Review Section I
Chemistry Branch II - Reregistration Support
Health Effects Division (H7509C)

Through: Andrew Rathman, Section Head *ARR*
Special Review Section I
Chemistry Branch II - Reregistration Support
Health Effects Division (H7509C)

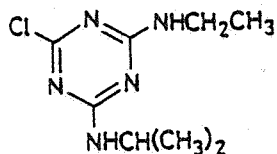
To: Dennis Utterback
Special Review Branch
Special Review and Reregistration Division (H7508W)

In response to the 09/92 DCI for product chemistry data on hexachlorobenzene (HCB) and pentachlorobenzene (PCB) in technical atrazine, Ciba-Geigy Corporation has submitted a waiver request. The registrant claims CBI status for the information supplied.

Atrazine, or 2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine, is a selective herbicide. Tolerances exist (40 CFR 180.220) for residues of atrazine (or of atrazine plus certain metabolites) in/on numerous crops and animal commodities (including eggs and milk). There are no food/feed additive tolerances. The structure of atrazine is as follows:



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber



Conclusion

The request for data on HCB and PCB contamination in technical atrazine is based upon the presence of HCB in atrazine reported by a manufacturer. The information is summarized in *Survey of Industrial Processing Data: Task I- Hexachlorobenzene and Hexachlorobutadiene Pollution from Chlorocarbon Processes*, Charles E. Mumma and Edward W. Lawless, Midwest Research Institute, EPA Contract No. 68-01-2105, EPA-560/3-75-003. The manufacturing process that was reported to generate up to 0.25 ppm HCB in the technical atrazine appears to be the process described by Ciba-Geigy for their manufacture. Therefore, a waiver is not justified.

Recommendation

CBRS recommends that the waiver be denied and that Ciba-Geigy be advised to submit a protocol for the determination of hexachlorobenzene (HCB) and pentachlorobenzene (PCB) in technical atrazine.

Detailed Consideration

The registrant details the manufacturing process (see Confidential Appendix A) and explains why HCB and/or PCB formation during each step is not likely.

An excerpt from J. Marsh's *Advanced Organic Chemistry: Reactions, Mechanism, and Structure* is submitted in support of the reaction mechanism.

CBRS agrees that the chemical reactions presented are not anticipated to generate hexachlorobenzene (HCB) or pentachlorobenzene (PCB). However, it has been reported (*Survey of Industrial Processing Data: Task I- Hexachlorobenzene and*

Hexachlorobutadiene Pollution from Chlorocarbon Processes, Charles E. Mumma and Edward W. Lawless, Midwest Research Institute, EPA Contract No. 68-01-2105, EPA-560/3-75-003) that levels of HCB ranging up to 0.25 ppm are found in technical atrazine manufactured in the method described in Ciba-Geigy's submission. In the absence of other evidence this empirical observation, reported by the manufacturer, must be assumed accurate.

Attachment: Confidential Appendix A

cc with Confidential Appendix A: HCB Subject File, Atrazine Registration Standard File, RF, S. Funk.
cc withOUT Confidential Appendix A: circ.

RDI: A. Rathman:02/05/93:E. Zager:02/05/93:

H7509C:CBRS:S.Funk:305-5430:CM#2:RM803:SF(0193.14b/15):01/28/93.

Page 4 is not included in this copy.

Pages _____ through _____ are not included.

The material not included contains the following type of information:

- Identity of product inert ingredients.
- Identity of product impurities.
- Description of the product manufacturing process.
- Description of quality control procedures.
- Identity of the source of product ingredients.
- Sales or other commercial/financial information.
- A draft product label.
- The product confidential statement of formula.
- Information about a pending registration action.
- FIFRA registration data.
- The document is a duplicate of page(s) _____.
- The document is not responsive to the request.

Confidential

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.
