



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. Funk*  
Special Review Section I  
Chemistry Branch II - Reregistration Support  
Health Effects Division (H7509C)

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

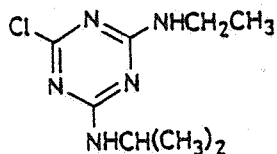
To: Dennis Utterback  
Special Review Branch  
Special Review and Reregistration Division (H7508W)

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.

[REDACTED]

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*

MANUFACTURING PROCESS INFORMATION IS NOT INCLUDED

*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.

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Pages \_\_\_\_\_ through \_\_\_\_\_ are not included.

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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

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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.

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