US EPA ARCHIVE DOCUMENT

Shaughnessy No.: 080803
DP Barcode: D181921
Case: 283913
Submission: S424205
Date Out of EFGWB: OCT 7, 1992

TO: R. Taylor
Product Manager #25
Registration Division (H7505C)

FROM: Henry Nelson, Ph.D., Head H Nelson
Surface Water Section
Environmental Fate and Groundwater Branch/EFED (H7507C)

THRU: Hank Jacoby, Chief Hank Jacoby
Environmental Fate and Groundwater Branch
Environmental Fate and Effects Division (H7507C)

Attached, please find the EFGWB review of:

Reg./File #(s): 080803-0

Common Names: Atrazine

Type of Product: Herbicide

Product Name:

Company Name: CIBA-GEIGY

Purpose: Review of FIFRA 6(a)(2) surface water monitoring data

Action Code: 405

EFGWB #(s): 92-1302

Total Review Time: 0.5 day

This review is of a summary of data (424433-01) on the concentrations of atrazine, atrazine degradates, cyanazine, and metolachlor in samples collected in June 1992 from Otter Lake in Illinois. The data summary was submitted by CIBA-GEIGY in compliance with FIFRA 6(a)(2).

1. CHEMICAL:
Common Name: Atrazine
Chemical Name: 2-Chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine
Type of Product: Herbicide

Chemical Structure:

Physical/Chemical Properties
- Molecular Weight: 354
- Physical State : White crystalline solid
- Aqueous Solubility: 70 mg/L @ 22$_o$C
- Vapor Pressure: 3.0 X 10_{-7} mm Hg
- Log Octanol/Water Partition Coefficient 2.33 to 2.71

2. TEST MATERIALS:
Not applicable.

3. STUDY/ACTION TYPE:
Review of FIFRA 6(a)(2) surface water monitoring data.

4. STUDY IDENTIFICATION:

D181921/424433-01: Letter dated 8/10/92 from K. Stumpf of CIBA-GEIGY to R. Taylor of RD/OPP.

5. REVIEWED BY:
Henry Nelson, Ph.D., Head H Nelson
Surface Water Section
Environmental Fate and Groundwater Branch/EFED

6. APPROVED BY:
Hank Jacoby, Chief
Environmental Fate and Groundwater Branch
Environmental Fate and Effects Division/OPP

7. CONCLUSIONS:

(1) Three replicate samples were collected from Otter Lake in June 1992. All 3 samples had atrazine concentrations exceeding the 3 ug/L MCL ranging from 4.6 to 4.8 ppb

(2) Three atrazine degradates (desethyl-atrazine, desisopropyl-atrazine, and desalkyl-atrazine) were detected in all 3 samples at concentrations ranging from 0.74 to 1.5 ug/L.

(3) Metalochlor was detected in all 3 samples at concentrations ranging from 0.14 to 0.15 ug/L (which are much less than the lifetime drinking water HA of 100 ug/L).

(4) Cyanazine was detected in all 3 replicate samples at 4 ug/L (which is greater than the lifetime drinking water HA of 1 ug/L). The most recent Drinking Water Regulations and Health Advisories that EFGWB has (April 1992) lists no MCL for atrazine, but a decreased lifetime HA from 10 ug/L to 1 ug/L.

(5) Atrazine concentrations exceeding the MCL (3 ug/L) are frequently reported for some surface water samples collected from numerous locations in the corn belt in late April through June.

(6) The results of the analyses were summarized by CIBA-GEIGY in their 8/10/92 letter, but the results for individual samples were not provided. No information was provided on the hydrological characteristics of the lake or on the sampling, analytical, or QA/QC methodologies employed. Therefore, EFGWB cannot verify the representativeness or accuracy of the data, nor speculate on the causes of the relatively high levels of atrazine contamination.

8. RECOMMENDATIONS:

When enough data is collected to determine atrazine concentrations in Otter Lake for a period of one to two years, CIBA-GEIGY should submit an actual study report which presents all of the data, a comparison of time weighted annual average atrazine concentration to the MCL, and the analytical and QA/QC procedures used.

9. BACKGROUND:

This review is of a summary of data (424433-01) on the concentrations of atrazine, atrazine degradates, cyanazine, and metolachlor in samples collected in June 1992 from Otter Lake in Illinois. The data summary was submitted by CIBA-GEIGY in compliance with FIFRA 6(a)(2).

10. DISCUSSION:
See conclusions.

11. COMPLETION OF ONE-LINER
Not applicable

12. CBI INDEX:
Not applicable.

DP BARCODE: D181921

CASE: 283913
SUBMISSION: S424205

DATA PACKAGE RECORD
BEAN SHEET

DATE: 08/25/92
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* * * CASE/SUBMISSION INFORMATION * * *

CASE TYPE: MISCELLANEOUS ACTION: 405 6(A)(2) ADVERSE DATA
CHEMICALS: 080803 Atrazine (ANSI) 0.0000%

ID#: 283913
COMPANY: CIBA-GEIGY CORP.
PRODUCT MANAGER: 25 ROBERT TAYLOR 703-305-6800 ROOM: CM2 241
PM TEAM REVIEWER: JAMES MORRILL 703-305-5705 ROOM: CM2 251
RECEIVED DATE: 08/14/92 DUE OUT DATE: 10/23/92

* * * DATA PACKAGE INFORMATION * * *

DP BARCODE: 181921 EXPEDITE: N DATE SENT: 08/25/92 DATE RET.: / /
CHEMICAL: 080803 Atrazine (ANSI)
DP TYPE: 001 Submission Related Data Package
ADMIN DUE DATE: 09/19/92 CSF: N LABEL: N

ASSIGNED TO	DATE IN	DATE OUT
DIV : EFED	08/26/92	/ /
BRAN: EFGB	/ /	/ /
SECT: SWS	/ /	/ /
REVR :	/ /	/ /
CONTR:	/ /	/ /

* * * DATA REVIEW INSTRUCTIONS * * *

Attention Henry Nelson:

Please review attached report MRID # 424433-01 which details findings of atrazine, metolachlor, and cyanazine in Otter Lake in Illinois.

* * * ADDITIONAL DATA PACKAGES FOR THIS SUBMISSION * * *

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL

6(a)(2)

ATRAZINE 080803

Page_____ is not included in this copy.

Pages 5 through 8 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.

X 6(A)(2) DATA

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.