

US EPA ARCHIVE DOCUMENT

080803

Shaughnessy Number: 179741

Date Out of EFGWB: 7/7/92

TO: Robert Taylor/Vickie Walters
Product Manager 25
Registration Division (H7505C)

FROM: Elizabeth Behl, Section Chief *Estella Waldm for EB*
Ground-Water Technology Section
Environmental Fate & Ground-Water Branch/EFED (H7507C)

THRU: Henry Jacoby, Chief *Henry Jacoby*
Environmental Fate & Ground-Water Branch/EFED (H7507C)

Attached, please find the EFGWB review of:

Reg./File #: _____

Chemical Name: Atrazine

Type Product: Herbicide

Company Name: CIBA-GEIGY Corporation

Purpose: 6(a)(2) submission of ground and surface water data

Date Received by EFGWB: 6/23/92

ACTION CODE: 405

Date Completed: 6/26/92 EFGWB #(s): 92-1079

Monitoring study requested: _____ Total Review Time: 0.3 days

Monitoring study voluntarily: _____

- Deferrals To: _____ Biological Effects Branch
 _____ Science Integration & Policy Staff, EFED
 _____ Non-Dietary Exposure Branch, HED
 _____ Dietary Exposure Branch, HED
 _____ Toxicology Branch, HED

STUDY/ACTION TYPE

Ciba-Geigy Corp. has submitted to EPA reports of atrazine residues (including degradates) mostly from Kansas drinking water supplies. These studies were conducted by state personnel in cooperation with Ciba-Geigy. The data were submitted pursuant to the reporting requirements enumerated in FIFRA Section 6(a)(2).

STUDY IDENTIFICATION:

1. Stumpf, Karen. 1992. Letter sent to R. Taylor, Registration Div. dated 5/11/92. Reports of atrazine in various locations - Dr. Stephen Randtke - University of Kansas.

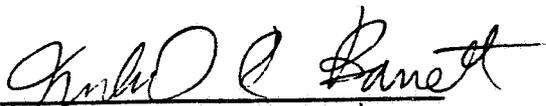
Prepared by Ciba-Geigy, contains raw data sheets with detected residues of atrazine, hydroxy atrazine, deethyl atrazine, deisopropyl atrazine, hydroxydeethyl atrazine, and hydroxydeisopropyl atrazine in drinking water supplies. The data are not adequately identified; it appears that most of the data are from surface waters.

2. Adams, Craig D. and Stephen J. Randtke. 1991. Occurrence and control of atrazine degradation products in Kansas drinking water supplies: Report of year 1 results; Ozonation of atrazine: A kinetic model and byproduct formation in natural waters. Kansas Water Resources Research Institute, Manhattan. Contribution no. 290, Report no. G1563-07.

This two-year research effort was designed to: 1) document the types and concentrations of atrazine degradation products present in raw and conventionally treated drinking water supplies, especially those known to contain atrazine; 2) examine the ability of various treatment processes to remove atrazine residues from drinking water; and 3) determine the extent to which additional atrazine degradates are formed during treatment. This progress report does not contain analytical results but concentrates on the effect of two treatment processes (granular activated carbon and ozonation) on the formation and/or removal of atrazine and various degradates.

REVIEWED BY:

Michael R. Barrett, Ph.D.
Chemist
EFED/EFGWB/Ground-Water Techn. Sec.

Signature: 

Date: 6/29/92

APPROVED BY:

Elizabeth Behl
Section Head
EFED/EFGWB/Ground-Water Section

Signature:

Etella Waldman for EB

Date:

6/29/92

RESULTS and CONCLUSIONS:

Most of the information submitted by Ciba-Geigy is not relevant to the responsibilities of the Ground Water Technology Section. The data on effectiveness of different treatments to remove atrazine residues from drinking water should be of high interest to those involved with the establishment of Maximum Contaminant Levels in the Office of Water.

The submission by Ciba-Geigy does not identify which of the data included represent ground water rather than surface water. Of note is that, in the vast majority of samples, atrazine was found in higher concentrations than any single degradate. Hydroxy atrazine, deethyl atrazine, and deisopropyl atrazine occurred in more samples at far higher concentrations than either hydroxydeethyl atrazine or hydroxydeisopropyl atrazine. If any of these results represent ground water, these would be the first detections of hydroxy atrazine in ground water that we are aware of.

RECOMMENDATIONS:

- ▶ The report on effectiveness of treatment methods to remove atrazine residues from drinking water should be passed on to the Office of Water.
- ▶ A full report on these monitoring results should be submitted to EFGWB for review when available. These data are apparently primarily from surface waters and should be examined by the Environmental Assessment Section of the Environmental Fate & Ground Water Branch.
- ▶ Future requests for monitoring data on s-triazine herbicides should include analyses for hydroxy atrazine and similar metabolites as well as for the dealkylated metabolites.

BARCODE: D179741

CASE: 283724
SUBMISSION: S420238

DATA PACKAGE RECORD
BEAN SHEET

DATE: 06/23/92
Page 1 of 1

*** CASE/SUBMISSION INFORMATION ***

CASE TYPE: MISCELLANEOUS ACTION: 405 6(A)(2) ADVERSE DATA
CHEMICALS: 080803 Chloro-4-(ethylamino)-6-(isopropylamino)-s-triazin 0.0000%

DP#: 283724

COMPANY: CIBA-GEIGY CORP.

PRODUCT MANAGER: 25 ROBERT TAYLOR

703-305-6800 ROOM: CM2 241

1 TEAM REVIEWER: JAMES MORRILL

703-305-5705 ROOM: CM2 251

RECEIVED DATE: 05/19/92

DUE OUT DATE: 07/28/92

*** DATA PACKAGE INFORMATION ***

DP BARCODE: 179741 EXPEDITE: N DATE SENT: 06/23/92 DATE RET.: / /

CHEMICAL: 080803 Chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine

DP TYPE: 001 Submission Related Data Package

MIN DUE DATE: 07/18/92

CSF: N

LABEL: N

ASSIGNED TO DATE IN DATE OUT

ASSIGNED TO	DATE IN	DATE OUT
IV : EFED	06/23/92	/ /
BRAN: EFGB	/ /	/ /
SECT: IO	06/25/92	/ /
REVR :	/ /	/ /
CONTR:	/ /	/ /

*** DATA REVIEW INSTRUCTIONS ***

Please find the attached reports submitted under FIFRA 6(a)(2). The reports (MRID #s, 423414-01 and 423414-02) detail the presence of atrazine in drinking water in Kansas and also discuss filtration efforts.

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

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