

US EPA ARCHIVE DOCUMENT



DP Barcode : D172175
PC Code No. : 80803
EFGWB Out : JAN 21 1992

To: Robert Taylor
Product Manager PM 25
Registration Division (H7507C)

From: Elizabeth Behl, Head (acting)
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Environmental Fate & Ground Water Branch/EFED (H7507C)

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

Handwritten notes:
D. W. B. EB
Henry Jacoby

Attached, please find the EFGWB review of...

Reg./File # : _____

Chemical Name : Atrazine

Type Product : Herbicide

Product Name : AAtrex

Company Name : CIBA-GEIGY Corporation

Purpose : Review of the detections of atrazine and its metabolites in ground water in Idaho and Florida

Action Code : 405 Adverse 6(a)(2) EFGWB #(s): 920322 Total Review Time: 0.5 days

EFGWB Guideline/MRID Summary Table: The review in this package contains...				
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161-4	162-4	164-4	165-4	167-1
201-1	163-1	164-5	165-5	167-2
202-1	163-3			

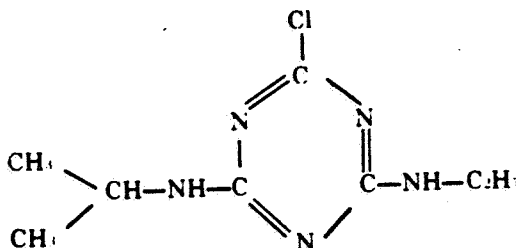
1. CHEMICAL:

Chemical name: 2-Chloro-4-ethylamino-6-isopropylamino-S-triazine

Common name: Atrazine

Trade name: AAtrex

Structure:



2. TEST MATERIAL:

Atrazine and its metabolites

3. STUDY/ACTION TYPE

Review of the detections of atrazine and its metabolites in ground water in Idaho and Florida (MRID 42116100).

4. STUDY IDENTIFICATION:

Title: Reports of Findings of Atrazine and Its Metabolites in Ground Water.

Submitted by: Karen S. Stumpf
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P.O. Box 18300
Greensboro, NC 27419

5. REVIEWED BY:

Larry Liu, Ph.D.
Environmental Scientist
OPP/EFED/EFGWB/Ground-Water Section

Signature: Larry Liu
Date: 1/15/92

6. APPROVED BY:

Elizabeth Behl
Acting Section Chief
OPP/EFED/EFGWB/Ground-Water Section

Signature: De Wells for EB
Date: 01/15/92

7. CONCLUSIONS:

Atrazine residues were detected at levels below the established HAL (3 ppb) in the ground water samples collected in Idaho and Florida. Several chloro-triazine metabolites were also found in these samples.

8. RECOMMENDATIONS:

- (1). The registrant should submit any available information about the wells with detections to the Agency. Information that we would find useful includes: reasons for investigation, well location, pesticide use and cropping history in the vicinity of the wells with detections, number of wells investigated, number of wells with detections, depth of water table, depth of the well, ground-water flow direction, spill or disposal in the past, well construction, the type of water use (such as for irrigation or drinking).
- (2). We would recommend the registrant sample nearby wells at the site for possible ground-water contamination.
- (3). The registrant should submit the findings of the other split water samples to the Agency.

9. BACKGROUND:

Atrazine has been registered since 1959 and has been used intensively in the United States since the early 1960's. There is some evidence that atrazine use has been declining in recent years, but it is still among the two or three most heavily used pesticides in the country, with annual use of 80-90 million pounds. Atrazine is also the primary pesticide used on corn. In the United States, atrazine use is primarily on field corn (86%), sorghum (10%), sugarcane (1.5%), and pasture (1%).

Due to the classification of atrazine as a C carcinogen and the growing awareness of pesticide-contaminated ground water, since 1988 EPA has discussed the merits of placing it into Special Review. The assessment of atrazine in ground and surface water is still in progress.

10. DISCUSSION:

The purpose of this review is to comment on the detections of atrazine and its chloro-metabolites in the ground water in Idaho and Florida. Due to the lack of detailed information (such as well location, site description, pesticide use history, results of the other set of split water samples), discussion by the

Agency is limited.

Study I: CIBA-GEIGY analyzed 5 split ground-water samples collected from a monitoring program conducted by the Idaho Department of Agriculture. The sampling locations were not reported. The analytes included atrazine and its three chlorotriazine metabolites (G-30033, G-28279, and G-28273).

Atrazine parent residues were detected in three of the five samples with a concentration range of 0.24-0.83 ppb. Residues of one or more of the three metabolites were found in three of the five samples ranging from 0.17-1.1 ppb. It was not clearly stated whether these metabolites were also detected in the samples with atrazine detections.

Study II: CIBA-GEIGY cooperated with Florida Department of Agriculture and Consumer Services in analyzing 36 split ground-water samples. Samples were collected in Jackson County, Florida. The same analytes as described in the Study I were included.

Atrazine parent residues were detected in 6 of the 36 samples collected with a concentration range of 0.1-2.2 ppb. Two chlorotriazine metabolites (G-30033 and G-28279) were found in 5 of 36 samples (0.12-0.28 ppb). The report did not indicate whether atrazine and its two metabolites were detected in the same samples.