6-14-93

DP Barcode : 189532
PC Code No. : 080803
EFGWB Out : 6/14/93

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

FROM: Elizabeth Behl, Head
Ground Water Technology Section
Environmental Fate & Ground Water Branch/EFED (H7507C)

THRU: Henry Jacoby, Chief
Environmental Fate & Ground Water Branch/EFED (H7507C) 6/14/93

Attached, please find the EFGWB review of...

Reg./File # : ID. #284532

Common Name : Atrazine

Product Name : Aatrex

Company Name : Ciba-Geigy Co.

Purpose : Update of 6(a)2 information - 3 domestic wells contaminated with atrazine and metolachlor in Howard Co., Md.

Type Product : Herbicide

Action Code : 405 EFGWB #(s): 93-0528 Total Review Time = 2.0 days

EFGWB Guideline/MRID/Status Summary Table: The review in this package contains...

161-1	162-4	164-4	166-1
161-2	163-1	164-5	166-2
161-3	163-2	165-1	166-3
161-4	163-3	165-2	167-1
162-1	164-1	165-3	167-2
162-2	164-2	165-4	201-1
162-3	164-3	165-5	202-1

Y = Acceptable (Study satisfied the Guideline)/Concur P = Partial (Study partially satisfied the Guideline, but additional information is still needed)
S = Supplemental (Study provided useful information, but Guideline was not satisfied) N = Unacceptable (Study was rejected)/Non-Concur

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DP BARCODE: D189532

CASE: 284532
SUBMISSION: S437568

DATA PACKAGE RECORD
BEAN SHEET

DATE: 03/24/93
Page 1 of 1

* * * CASE/SUBMISSION INFORMATION * * *

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

ID#: 284532
COMPANY:
PRODUCT MANAGER: 25 ROBERT TAYLOR 703-305-6800 ROOM: CM2 241
PM TEAM REVIEWER: WESLEY ALLEN 703-305-5706 ROOM: CM2 251
RECEIVED DATE: 03/10/93 DUE OUT DATE: 05/19/93

* * * DATA PACKAGE INFORMATION * * *

DP BARCODE: 189532 EXPEDITE: N DATE SENT: 03/24/93 DATE RET.: / /
CHEMICAL: 080803 Atrazine (ANSI)
DP TYPE: 001 Submission Related Data Package
ADMIN DUE DATE: 04/18/93 CSF: N LABEL: N

ASSIGNED TO	DATE IN	DATE OUT
DIV : EFED	3/25/93	/ /
BRAN: EFGB	/ /	/ /
SECT: GTS	/ /	6/1/93
REVR : Jordan	5/12/93	6/1/93
CONTR:	/ /	/ /

* * * DATA REVIEW INSTRUCTIONS * * *

PLEASE REVIEW GROUND WATER CONTAMINATION,MARYLAND SITE
ATTN BETSY BEHL

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

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

MRID Root:_____

TRANSMITTAL DOCUMENT

NAME AND ADDRESS OF SUBMITTER

426932-00

Ciba-Geigy Corp., Ag. Div.
P.O. Box 18300
Greensboro, NC 27419-8300

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED

FIFRA 6(a)(2)

DATE RECEIVED BY EPA

3/10/93

LIST OF SUBMITTED STUDIES:

Letter to Robert Taylor dated 3/3/93 from Karen Stumpf providing update on Howard County, MD ground water contamination.

42693201

related to MRID 42551201

FOR ISB USE

Date to ISB: 3/10/93 Company No.: 100 Reg. No.(s): —

Date to Index: 3/ :/93 Guideline: —

Date frm Indx: Page Count: 1

Addressee: R. Taylor Groundwater? State(s): MD

Notify: V. Eagle, J. Miller, J. Mitchell (List A) Chem. Name(s) & Code(s): atrazine, 080803

Category: (1) 6a2 2) adv. flag metolachlor, 108801

Agricultural Division
CIBA-GEIGY Corporation
P.O. Box 18300
Greensboro, North Carolina 27419-8300
Telephone 919 632 6000

CIBA–GEIGY

426932-81

Certified Mail

March 3, 1993

284532

Document Processing Desk [6(a)(2)]
Office of Pesticide Programs (H7504C)
U.S. Environmental Protection Agency
401 M. Street, S.W.
Washington, D.C. 20460

Attn: Mr. Robert J. Taylor, PM 25

Dear Mr. Taylor:

SUBJECT: UPDATE ON HOWARD COUNTY, MARYLAND SITE GROUND WATER CONTAMINATION

Ciba's last correspondence to the Agency on this site was provided on November 4, 1992 and can be located under EPA MRID No. 42554201. Since that time it has come to our attention that contamination continues in the three affected wells. Detections of atrazine range from 4.2-16 ppb and metolachlor from 70-119 ppb. Other non-Ciba products are involved as well. All three homes have been put on a filtration system and analysis of filtered water samples indicates no contamination. Ciba Plant Protection will continue cooperating with state and local officials when requested to do so.

Sincerely,

Karen S. Stumpf

Karen S. Stumpf
Senior Regulatory Manager
Regulatory Affairs

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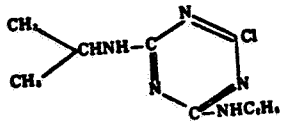
1. CHEMICAL: Common name(s): atrazine and metolachlor

1. CHEMICAL: Common name(s): atrazine and metolachlor

Chemical name(s): 2-chloro-4-(ethylamino)-6-(isopropyl amino)-s-triazine

Structure (s):



2. TEST MATERIAL: N/A

3. STUDY/ACTION TYPE: 6(a)2 Action - Update of registrant's 1988 and 1992 reports of atrazine and metolachlor residues > MCL/HA in 3 domestic wells located in Howard County, Maryland near a dealer (Mullinix) location.

4. STUDY IDENTIFICATION: Letter to Robert Taylor, dated 3/3/93, from Karen Stumpf updating the 1988 and 1992 reports of atrazine and metolachlor in 3 domestic wells in Howard County, Maryland. Another pesticide (alachlor) was also reported in the three wells, although alachlor is not a Ciba-Geigy product.

5.
REVIEWED BY: John H. Jordan, Ph.D.
OPP/EFED/EFGWB/Ground-Water Section
Signature: John H. Jordan Date: 6/1/93

6. APPROVED BY: Elizabeth Behl, Head
OPP/EFED/EFGWB/Ground-Water Section
Signature: EBehl Date: 6/1/93

7. CONCLUSIONS: Since 1988 there has been a continuing source of atrazine and metolachlor residues > MCL/HA at the former Mullinix blending operation site. Ciba-Geigy's 1988 6(a)2 report also included nitrate, another pesticide and petroleum products in tap water.

Current (1993) atrazine ground-water residues range from 4.2 to 16 ppb and metolachlor from 70 to 119 ppb. Atrazine residues above the MCL of 3 ppb and metolachlor > HA of 100 ppb may cause unreasonable adverse health effects.

A detailed report will be sent to EFGWB by the Howard County, Maryland Health Department.

8. RECOMMENDATIONS:

In cooperation with state agencies, Ciba-Geigy installed GAC filters on the three contaminated wells, because residue levels in ground-water are above the MCL/HAs. The EFGWB and the Howard County Health Department are concerned about the maintenance and care of the GAC filter systems. For instance, what is the schedule for inspection and replacement of the filters? At what ground-water residue concentration will the filtration systems be discontinued? A policy/plan statement for GAC filter operation and maintenance is requested. Also, the registrant should obtain specific well locations reported to have 6(a)2 residues, because the Agency requires residue reports with the specific well locations; specific well locations enable EFGWB to track ground-water contamination.

Please obtain as much detailed information as possible from the state agencies and send the data sheet, attached, to us.

9. BACKGROUND/DISCUSSION:

On October 28, 1988 Ciba-Geigy reported high levels of atrazine and metolachlor in three samples of tap water taken near a former dealer operation (Mullinex) in Howard County, Maryland. Ciba-Geigy confirmed levels of 43 ppb atrazine and 188 ppb of metolachlor. Analyses by county health officials showed 39 ppb atrazine and 231 ppb metolachlor.

Ciba-Geigy indicated that the dealer has not been able to offer any information which would lead to identification of the cause for the contamination. The registrant indicated at the time of the initial report, in 1988, that the residues were a concern to them and that they would investigate, but no report of their investigation has been received to date. Prior to this (3/3/93) 6(a)2 submission, (EFGWB #93-0528), the last correspondence concerning this (Mullinix) site was received on 11/4/92.

The County Health Department said that the Mullinix site is located on route 94 near Lisbon, Maryland approximately 1 1/2 mile south of route 70 near the intersection of route 94 and Mulinix road. The County Health Department is sending EFGWB a report describing the site.

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ENVIRONMENTAL FATE DATA EXTRACTION SHEET
GROUND WATER MONITORING STUDY - STUDY IDENTIFICATION

INSTRUCTIONS: Complete one study identification sheet for each ground water study location.

STUDY TITLE:
CONTACT PERSON: TELEPHONE:
STUDY SPONSOR:
GUIDELINE NUMBER:
MRID:

CAS#:
PC-CODE:
CHEMICAL NAME:

LOCATION: COUNTRY COUNTY STATE

PESTICIDE APPLICATION

AMOUNT APPLIED		lbs-ai/acre
MEASURED CONCENTRATION		mg/g
MAXIMUM ALLOWED		
NO. APPLICATIONS		
INTERVAL		
METHOD OF APPLICATION		
FORMULATION		
DATE OF LAST APPLICATION		
YEARS OF USE		
APPLICATION SITE		(bare ground, crop type)

STUDY CONDITIONS

CUMULATIVE RAIN FALL		in
MAXIMUM RAIN FALL		in
MAXIMUM RAIN FALL DATE		
CUMULATIVE IRRIGATION		in
HIGH TEMPERATURE		
LOW TEMPERATURE		
BEGINNING DATE		
ENDING DATE		
EVAPOTRANSPIRATION		in

LIMIT OF DETECTION
METHOD OF ANALYSIS
COMMENTS

GROUND WATER STUDY SUMMARY

	YES/NO
MOBILITY TRIGGER MET?	
PERSISTENCE TRIGGER MET?	
FIELD MONITORING TRIGGER MET?	
ARE THERE PARENT DETECTS?	
ARE THERE DEGRADATE DETECTS?	
ARE DEGRADATE ANALYSES PERFORMED?	

ENVIRONMENTAL FATE DATA EXTRACTION SHEET
GROUND WATER MONITORING STUDY - SOIL PROPERTIES

INSTRUCTIONS: Provide soils information for each ground water study location.

MRID

LOCATION: COUNTRY COUNTY STATE

SOIL PROPERTIES
SERIES

HYDROLOGIC GROUP			pH	
MINERALOGY			CEC (meq/100g)	
USDA TEXTURE			PCT ORGANIC MATTER	
TEXTURE (%)	SAND		PCT ORGANIC CARBON	
	SILT		PCT MOISTURE @15BAR	
	CLAY		PCT MOISTURE @0.3BAR	
HYDRAULIC CONDUCTIVITY			BULK DENSITY(g/cm^3)	
			PORE VOLUME (%)	

LOCATION: COUNTRY COUNTY STATE
SOIL PROPERTIES
SERIES

HYDROLOGIC GROUP			pH	
MINERALOGY			CEC (meq/100g)	
USDA TEXTURE			PCT ORGANIC MATTER	
TEXTURE (%)	SAND		PCT ORGANIC CARBON	
	SILT		PCT MOISTURE @15BAR	
	CLAY		PCT MOISTURE @0.3BAR	
HYDRAULIC CONDUCTIVITY			BULK DENSITY(g/cm^3)	
			PORE VOLUME (%)	

LOCATION: COUNTRY COUNTY STATE
SOIL PROPERTIES
SERIES

HYDROLOGIC GROUP			pH	
MINERALOGY			CEC (meq/100g)	
USDA TEXTURE			PCT ORGANIC MATTER	
TEXTURE (%)	SAND		PCT ORGANIC CARBON	
	SILT		PCT MOISTURE @15BAR	
	CLAY		PCT MOISTURE @0.3BAR	
HYDRAULIC CONDUCTIVITY			BULK DENSITY(g/cm^3)	
			PORE VOLUME (%)	

ENVIRONMENTAL FATE DATA EXTRACTION SHEET
GROUND WATER STUDIES - WELL DESCRIPTION

INSTRUCTIONS: Complete information for each well in the ground water study. Well data can be entered electronically.

MRID

WELL NUMBER: **WELL USE:**

WELL DEPTH		**WELL LOCATION**	
WELL		**LATITUDE**	
SCREEN TOP		**LONGITUDE**	
SCREEN BOTTOM		**CITY**	
ALTITUDE		**COUNTY**	
WATER TABLE		**STATE**	

WELL NUMBER: **WELL USE:**

WELL DEPTH		**WELL LOCATION**	
WELL		**LATITUDE**	
SCREEN TOP		**LONGITUDE**	
SCREEN BOTTOM		**CITY**	
ALTITUDE		**COUNTY**	
WATER TABLE		**STATE**	

WELL NUMBER: **WELL USE:**

WELL DEPTH		**WELL LOCATION**	
WELL		**LATITUDE**	
SCREEN TOP		**LONGITUDE**	
SCREEN BOTTOM		**CITY**	
ALTITUDE		**COUNTY**	
WATER TABLE		**STATE**	

WELL NUMBER: **WELL USE:**

WELL DEPTH		**WELL LOCATION**	
WELL		**LATITUDE**	
SCREEN TOP		**LONGITUDE**	
SCREEN BOTTOM		**CITY**	
ALTITUDE		**COUNTY**	
WATER TABLE		**STATE**	

WELL NUMBER: **WELL USE:**

WELL DEPTH		**WELL LOCATION**	
WELL		**LATITUDE**	
SCREEN TOP		**LONGITUDE**	
SCREEN BOTTOM		**CITY**	
ALTITUDE		**COUNTY**	
WATER TABLE		**STATE**	

ENVIRONMENTAL FATE DATA EXTRACTION SHEET
GROUND WATER STUDIES - STUDY RESULTS

INSTRUCTION: Provide information for each sample taken. Sample data can be entered electronically.

MRID
CAS NUMBER

WELL NUMBER	SAMPLE DATE	MEDIA	CONCENTRATION (ug/L)	LOD (ug/L)	CONTAM SOURCE

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