

Shaughnessy No. 29001

Date Out EAB: APR 27 1989 MAY - 3 1989

TO: Lewis/Toma
Product Manager 21
Registration Division (H7505C)

FROM: *PH* Patrick W. Holden, Chief *PH*
Ground-Water Technology Section
Environmental Fate & Ground Water Branch (H7507C)

THRU: Hank Jacoby, Acting Chief *Hank Jacoby*
Environmental Fate & Ground Water Branch (H7507C)

Attached please find the environmental fate review of:

Reg./File No.: _____

Chemical: 1,3-dichloropropene

Type Product: Nematicide

Product Name: TeloneII

Company Name: Dow Chemical

Purpose: Response to RD concerns regarding change in application method on new label.

ACTION CODE: 301

Date Received: 03-20-89 EFGWB # 90458

Date Completed: 04-25-89 Total Review Time: 2 days

Monitoring study requested:

Monitoring study voluntarily conducted by registrant:

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

<p style="margin: 0;">United States Environmental Protection Agency Office of Pesticide Programs Washington, DC 20460</p> <p style="margin: 0;">Data Review Record</p> <p style="margin: 0; font-size: small;">Confidential Business Information - Does not contain National Security Information (E.O. 12065)</p>	Pack Number <div style="font-size: 2em; font-family: cursive;">49135</div> <div style="font-family: cursive;">EFED</div>	Date Received <div style="font-size: 1.5em; font-family: cursive;">3-22-89</div>
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1. Product Name <i>Telone II</i>				Chemical Name <i>1,3-Dichloropropane</i>			
2. Identifying Number <i>464-511</i>	3. Record Number <i>241916</i>	4. Action Code <i>301</i>	5. MRID/Accession Number <i>n/a</i>	6. Study Guideline or Narrative <i>Concerns of increased dosage rates:</i>			
				<i>a. Groundwater / EFGWB Branch</i>			
				<i>b. non-dietary exposure Branch</i>			
				<i>HED</i>			

7. Reference No.	8. Date Rec'd (EPA) <i>8/8/88</i>	9. Prod/Review Mgr/DCI <i>Lewis/Toma</i>	10. PM/RM Team No. <i>Z1</i>	11. Date to HED/EFED/RD/BEAD <i>03/20/89</i>	12. Proj Return Date <i>06/05/89</i>	13. Date Returned to RD/SRRD
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Instructions

Attn: Cathy Eiden / EFGWB / EFED

Note Dick Mitchell's comments / dosage rates on page two of his 9/4/88 comments

This Section Applies to Review of Studies Only

14. Check Applicable Box <input type="checkbox"/> Adverse 6(a)(2) Data (405) <input type="checkbox"/> Special Review Data (870) <input type="checkbox"/> Generic Data (Reregistration)(660) <input type="checkbox"/> Product Specific Data (Reregistration)(655)	15. No. of Individual Studies Submitted <i>n/a</i>
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16. Have any of the above studies (in whole or in part) been previously submitted for review? <input type="checkbox"/> Yes (Please identify the study(ies)) <input type="checkbox"/> No	17. Related Actions
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18.	To	Type of Review	19. Reviews Also Sent to	20. Data Review Criteria
HED		Science Analysis & Coordination	<input type="checkbox"/> SAC <input type="checkbox"/> PC	A. Policy Note No. 31 <input type="checkbox"/> 1 = data which meet 6(a)(2) or meet 3(c)(2)(B) flagging criteria <input type="checkbox"/> 2 = data of particular concern from registration standard <input type="checkbox"/> 3 = data necessary to determine tiered testing requirements B. Section 18 <input type="checkbox"/> 1 = data in support of section 3 in lieu of section 18 C. Inert Ingredients <input type="checkbox"/> 1 = data in support of continued use of List 1 inert
		Toxicology/HFA	<input type="checkbox"/> TOX/HFA <input type="checkbox"/> PL	
		Toxicology/IR	<input type="checkbox"/> TOX/IR	
		Dietary Exposure	<input type="checkbox"/> DEB <input type="checkbox"/> EA	
		Nondietary Exposure	<input checked="" type="checkbox"/> NDE <input type="checkbox"/> AC	
EFED	<input checked="" type="checkbox"/>	Ecological Effects	<input type="checkbox"/> EEB <input type="checkbox"/> BA	
	<input checked="" type="checkbox"/>	Environmental Fate & Groundwater	<input type="checkbox"/> EFGWB	
SRRD		Special Review	<input type="checkbox"/> SR	
		Reregistration	<input type="checkbox"/> RER	
		Generic Chemical Support	<input type="checkbox"/> GSC	
RD		Insecticide-Rodenticide	<input type="checkbox"/> IR	
		Fungicide-Herbicide	<input type="checkbox"/> FH	
		Antimicrobial	<input type="checkbox"/> AM	
		Product Chemistry		
BEAD		Precautionary Labeling		
		Economic Analysis		
		Analytical Chemistry		
		Biological Analysis		

<input type="checkbox"/> Confidential Statement of Formula (EPA Form 8570-4) Attached (Trade Secrets)	<input type="checkbox"/> Label Attached
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United States Environmental Protection Agency
Office of Pesticide Programs
Washington, DC 20460
Data Review Record
Confidential Business Information - Does not contain
National Security Information (E.O. 12065)

Pack Number
49135
EFED
Date Received
3-22-89

1. Product Name
Leone II
Chemical Name
1,3-Dichloropropane

2. Identifying Number 464-511	3. Record Number 241916	4. Action Code 301	5. MRID/Accession Number n/a	6. Study Guideline or Narrative CONCERNS OF INCREASED DOSAGE RATES: a. Groundwater / EFGWB Branch EFED b. Non-chronic exposure Branch HED
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7. Reference No.
8/8/88
8. Date Rec'd (EPA)
Lewis/Toma
9. Prod/Review Mgr/DCI
Z1
10. PM/RM Team No.
03/20/89
11. Date to HED/EFED/RD/BEAD
06/05/89
12. Proj Return Date
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Instructions
Att: Cathy Eiden / EFGWB / EFED
Note Dick Mitchell's comments/dosage rates on page
two of his 9/4/88 comments

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 15. No. of Individual Studies Submitted
n/a

16. Have any of the above studies (in whole or in part) been previously submitted for review?
 Yes (Please identify the study(ies))
 No
 17. Related Actions

18.	To	Type of Review	19. Reviews Also Sent to	20. Data Review Criteria
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	<input checked="" type="checkbox"/>	Environmental Fate & Groundwater	<input type="checkbox"/> EFGWB	
		Special Review	<input type="checkbox"/> SR	
SRRD		Reregistration	<input type="checkbox"/> RER	
		Generic Chemical Support	<input type="checkbox"/> GSC	
		Insecticide-Rodenticide	<input type="checkbox"/> IR	
RD		Fungicide-Herbicide	<input type="checkbox"/> FH	
		Antimicrobial	<input type="checkbox"/> AM	
		Product Chemistry		
BEAD		Precautionary Labeling		
		Economic Analysis		
		Analytical Chemistry		
		Biological Analysis		

Confidential Statement of Formula (EPA Form 8570-4) Attached (Trade Secrets)
 Label Attached

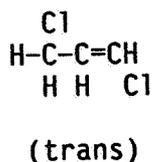
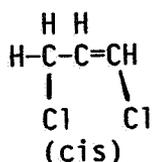
Telone II

1. Chemical:

Common Name: Telone II

Chemical Name: 1,3-dichloropropene

Structure:



2. Test Material:

Not applicable.

3. Study/Action Type:

Registrant has requested a label change for Telone II. The change involves the use of one or more chisels per row when treating a crop with the fumigant. If only one chisel is used, a more concentrated application will be made at any given point of fumigant application. The RD has asked the EFGW Branch and NDE Branch to examine the effects of the increased dosage associated with the 1 chisel application method. This is a label-wide use recommendation.

4. Study Identification:

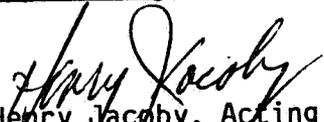
A letter from Robert W. Morgan dated July 27, 1988, DOW Chemical U.S.A. to Lois Rossi.

5. Reviewed by:



Catherine Eiden, Acting Chief
Environmental Assessment Section
Environmental Fate and Ground-Water Branch

6. Approved by:



Henry Jacoby, Acting Chief
Environmental Fate and Ground-Water Branch
Environmental Fate and Effects Division

7. Conclusions:

The RD has expressed concern over the use of the one chisel application method presented in the new proposed label for Telone II, because it will result in more concentrated dosages of Telone II at the point of application.

EFGWB responds to this concern on three accounts:

1. If the chemical is taken up by plant roots, this may be of concern to DEB. Therefore, EFGWB concludes this review should also be routed to DEB for consideration of the possible effects of this one chisel application method and the associated increased dosage concentration on plant residues of Telone II.
2. EFGWB supports the proposed limitation which recommends using the 1 chisel method for row spacings > 24". Broadcast treatments are recommended for row spacings < 24". We believe the proposed limitation is adequate for purposes of preventing higher dosages from being applied per acre of cropland with the single chisel application technique than would be applied with the broadcast treatment rates. However, in Table 3 of the proposed label, the columns for 12, 18, and 20 inch row spacing application rates must be deleted from the label, as they may lead to applications with the one chisel method in row spacings less than 24 inches apart. This is a direct contradiction to Table 2., Footnote (1), which states, "For row spacings of less than 24 inches apply Telone II as a broadcast treatment".
3. Because the one chisel application method will result in more concentrated dosages of Telone II at any given point of application the EFGWB was asked to consider potential effects on ground water. The EFGWB concludes the effects from this increased dosage concentration at any given point is unknown, at this time. However, we are currently negotiating 2 small-scale retrospective ground-water monitoring programs with the registrant and have expressed our concerns about the potential increased concentration of Telone II at any given point of application through the one chisel application method.

8. Recommendation:

1. Route this submission to DEB for consideration of the possible effects of the increased concentrations expected from a one chisel application method on plant residue.
2. Delete the columns for row treatments for 12, 18, and 20 inch row spacing application rates from the label as contained in Table 3. of the label. This is inconsistent with Table 2., Footnote (1) of the label, stating, "For row spacings less than 24" apply Telone II as a broadcast treatment." Application of Telone II with the one chisel method for row spacings less than 24" may result in increased total application rates of Telone II.

The Environmental Fate and Ground-Water Branch (EFGWB) does not know if Telone II is a ground-water concern at this time. We await results from the ongoing retrospective ground-water monitoring study conducted by the registrant to determine this. We do not know the effects of the one chisel application method of Telone II on ground water. Because the one chisel application method will result in a more concentrated dosage of Telone II at any given point of application, the EFGWB will consider possible effects on ground water; however, we cannot address those effects with the retrospective ground water study. A different study looking at the effects of different application methods would be necessary. The EFGWB reserves the need for such a study until the results from the small-scale retrospective ground-water monitoring study are in. Because the registrant is conducting this study at six different sites, we may be able to compare the results of the ground-water monitoring studies with application methods (broadcast vs. row application) and rates. From this we may be able to determine if the application method of Telone II has any effect on ground-water quality and whether a separate study to determine the effects of a 1 chisel method of application is warranted.

9. Background:

Soil fumigant for control of nematodes, diseases and weeds.

10. Discussion of Individual Studies:

N/A

11. Completion of One-Liner:

N/A

12. CBI:

N/A

EFFICACY REVIEW

DATE: IN 8/31/88 OUT 9/14/88

FILE OR REG. NO. 464-511

PETITION OR EXP. PERMIT NO. _____

DATE DIVISION RECEIVED 8/8/88

DATE OF SUBMISSION 7/27/88

DATE SUBMISSION ACCEPTED _____

TYPE PRODUCT(S): I, D, H, F, N, R, S _____

DATA ACCESSION NO(S). _____ RECORD NO. 230,391

PRODUCT MGR. NO. 21

PRODUCT NAME(S) Telone II Soil Fumigant

COMPANY NAME Dow Chemical USA

SUBMISSION PURPOSE Upgrade labeling - revise labelling in re. to our 4/19/88 and previous letters; Numerous Crops and Pests

CHEMICAL & FORMULATION 1,3-Dichloropropene - - - - 94%

[10.1 lbs. product/gallon]

CONCLUSIONS & RECOMMENDATIONS The proposed labeling is generally acceptable, however, the following labeling change must be made:

- (1) Under Table 2 Footnote (5), change the Pineapple dosage rate to an amount per 1500 ft. of row. Note: The amounts per acre per specified row/bed spacing can be listed parenthetically.
~~with~~ Since pineapples are planted in beds (56 to 60" apart

center to center) with two rows (ca. 18" apart) you may want to provide more specific guidance for row treatments unless you feel that the general directions provide proper guidance.

For our records you should submit the rationale for increasing the delivery (flow) rate for single chisel row applications from $1\frac{1}{3}$ to 2 times the broadcast application flow rate.

Richard E. Mitchell
Dermatologist
RD, FHB

Notes to PM: (1) Since water is not used to clean equipment you may consider amending the new water contamination statement by substituting the term "washwaters" with the term "rinseate". (2) For your information the proposed labeling differs from previously accepted labels in that the row application flow rates have changed. When two or more chisels per row are used the flow rates are less than in the past, but when only one chisel per row is used the ~~rate~~ flow rates are higher than in the past.