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Date Out EFB: 05 DEC 1984

To: Jay Ellenberger
Product Manager 12
Registration Division (TS-767)

From: Samuel M. Creeger, Chief 
Review Section No. 1
Exposure Assessment Branch
Hazard Evaluation Division (TS-769)

Attached please find the environmental fate review of:

Reg./File No.: 264-322 and 264-330

Chemical: Aldicarb

Type Product: Insecticide/nematicide

Product Name: TEMIK

Company Name: Union Carbide

Submission Purpose: Solicit EAB comments on adequacy of proposed
1000 foot buffer zone

ZBB Code: _____

ACTION CODE: 300

Date In: 11/29/84

EAB # 5133

Date Completed: 12/5/84

TAIS (level II)

Days

60

0.3

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

1. INTRODUCTION

1.1 The PM has solicited EAB's comments regarding Union Carbide's proposed buffer zone label statement. (Refer to the attached November 13, 1984 letter from Union Carbide to J. Ellenberger).

The statement is intended to prevent Florida use of aldicarb on nonbedded citrus fields and commercial field grown ornamentals and nursery plants that are within 1000 feet of a drinking water well unless it is known that such wells are either cased to 100 feet below ground level or a minimum of 30 feet below the water table. Union Carbide feels the areas of concern should be further limited to areas where soils have a permeability rate greater than 20 inches per hour with an available water capacity less than 0.06 in all layers to a depth of 80 inches (such as Astatula soils).

2. DISCUSSION/CONCLUSIONS

2.1 The proposed restriction will not prevent aldicarb residues from reaching ground water. Union Carbide's approach seems to be geared to preventing aldicarb residues from getting into drinking water wells only which represents a subset of all ground water, while our current approach is preventing residues from reaching all ground water.

2.2 Data used by Union Carbide to arrive at the 300 foot buffer zone or 1000 foot buffer zone were not submitted and are needed if more detailed comments are needed.

2.3 Although the weather, hydrogeology and the soils of Long Island, NY are different from those in the Florida citrus growing areas, aldicarb residues were found 2000 - 2500 feet from treated potato fields in Long Island¹.



Samuel M. Creeger

December 5, 1984

Environmental Chemistry Review Section/EAB
Hazard Evaluation Division

¹Zaki, M.H. et. al., Am. J. Public Health 1982, 72, 1391-1395.



UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.
P.O. BOX 1170, ALEXANDRIA, VA 22304
RESEARCH AND DEVELOPMENT DIVISION

EPA Correspondence No. 401-84

November 13, 1984

Jay S. Ellenberger, Product Manager
U.S. ENVIRONMENTAL PROTECTION AGENCY
Registration Division (TS-767C)
Insecticide/Rodenticide Branch
Crystal Mall Building II - Room 202
1921 Jefferson Davis Highway
Arlington, VA 22202

Re: TEMIK® Aldicarb Pesticide
EPA Reg. No's 264-330 and 264-322
Florida Supplemental Labeling

Dear Mr. Ellenberger:

This letter will confirm my discussions with you on November 7, 1984, regarding background information on our proposed well set-back provisions for certain uses of TEMIK® Aldicarb Pesticide in Florida.

On June 6, 1984, Union Carbide Agricultural Products Company, Inc. met with representatives of the Florida Department of Agriculture and Consumer Services (DACS) to discuss restrictions on the use of TEMIK® Aldicarb on citrus in the ridge area of Florida.

For the 1984 growing season TEMIK® Aldicarb could not be used on citrus and certain other crops within 300 feet of a well used for drinking water. While research had continued to affirm that the 300 foot restriction is more than adequate for most areas where TEMIK® is used in Florida, Union Carbide was concerned that aldicarb could, under certain circumstances, move more than 300 feet from the site of application in shallow drinking water.

At a workshop, called by Commissioner Conner (DACS), in Orlando on August 13, Union Carbide proposed tougher regulations but citrus growers opposed the proposed measures. At this time aldicarb had been found in non-potable monitoring wells 300 feet from Union Carbide's Lake Hamilton research site. The proposed restriction was that "...Aldicarb not be used on nonbedded citrus fields within 1000 feet of a drinking water well unless it is known that such wells are either cased to 100 feet below ground level or a minimum of 30 feet below the water table." At the workshop it became clear that application of the additional restriction to all nonbedded citrus would be unnecessarily restrictive and would not clearly identify the specific geographic area on the Florida ridge where the additional restriction was needed.

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Jay S. Ellenberger
November 13, 1984
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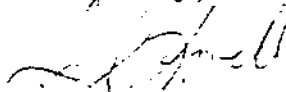
Several weeks followed during which Union Carbide and the DACS worked to more specifically identify the area in Florida where the additional restrictions should apply. On October 26, 1984, we met with the DACS and agreed that the area of concern should be defined as areas where soils have a permeability rate greater than 20 inches per hour with an available water capacity less than 0.06 in all layers to a depth of 80 inches (such as Astatula soils).

We also agreed to expeditiously seek EPA approval of Supplemental Bulletins for both TEMIK® 15G, for use on citrus, and TEMIK® 10G, for use on ornamentals, which hopefully could be in place by December 1, 1984. Amended registration is needed since the state cannot revise its regulations on such short notice. The December 1 date is significant since the state requires a 30 day pre-treatment notice before applications may begin on January 1, 1985.

As I mentioned, Florida officials are holding another workshop on November 15, 1984, so if the EPA has any questions or concerns with regard to the subject proposal, the workshop could address those. In closing, I would like to point out that this proposal is based on worst case projections of residue persistence and movement in the areas described, but we continue to see no indication of aldicarb residues above the current guideline in drinking water wells from our monitoring in Florida.

Mr. Ellenberger, if you or others at EPA have any questions on this proposal and the basis for it, please do not hesitate to contact me.

Sincerely,



J. S. Lovell, Registration Manager
Insecticides/Intermediates
Registration & Regulatory Affairs

JSL/ja

cc: Frank T. Sanders
Sam Creeger

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PRODUCT BULLETIN



UNION CARBIDE AGRICULTURAL
PRODUCTS COMPANY, INC.
T. W. ALEXANDER DRIVE
P.O. BOX 12014
RESEARCH TRIANGLE PARK, NC 27709

TEMIK® 10G Aldicarb Pesticide For Use
on Commercial Field Grown Ornamentals
and Nursery Plants in Florida

EPA Reg. No. 264-322
EPA Est. No. 10352-GA-01

Supplemental Labeling FOR DISTRIBUTION AND USE ONLY WITHIN FLORIDA

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

TEMIK® 10G Aldicarb Pesticide cannot be applied within 300 feet of any drinking water well in Florida.

In addition, TEMIK® 10G Aldicarb Pesticide cannot be used on commercial field grown ornamentals and nursery plants in Florida within 1,000 feet of a drinking water well, when soils (such as Astatula soils) have a permeability rate greater than 20 inches per hour with an available water capacity less than 0.06 in all layers to a depth of 80 inches as identified by the U.S.D.A. Soil Conservation Service, unless it is known that such wells are either cased to 100 feet below ground level or a minimum of 30 feet below the water table.

The U.S.D.A. Soil Conservation Service which serves your county can tell you if the soils in your grove(s) fall within this category.

IMPORTANT: Before using TEMIK® Aldicarb Pesticide, read and carefully observe the precautionary statements and all other information appearing on the product label. THIS BULLETIN CONTAINS NEW AND SUPPLEMENTAL DIRECTIONS FOR USE OF THIS PRODUCT WHICH MAY NOT APPEAR ON THE PACKAGE LABEL. Follow directions carefully. This label must be in possession of the user at the time of pesticide application.

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PRODUCT BULLETIN



UNION CARBIDE AGRICULTURAL
PRODUCTS COMPANY, INC.
T. W. ALEXANDER DRIVE
P.O. BOX 12014
RESEARCH TRIANGLE PARK, NC 27709

TEMIK® Aldicarb Pesticide
For Use on Florida Citrus

EPA Reg. No. 264-330
EPA Est. No. 10352-GA-01

Supplemental Labeling FOR DISTRIBUTION AND USE ONLY WITHIN FLORIDA

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

TEMIK® Aldicarb Pesticide cannot be applied within 300 feet of any drinking water well in Florida.

In addition, TEMIK® Aldicarb Pesticide cannot be used in Florida citrus within 1,000 feet of a drinking water well, when soils (such as Astatula soils) have a permeability rate greater than 20 inches per hour with an available water capacity less than 0.06 in all layers to a depth of 80 inches as identified by the U.S.D.A. Soil Conservation Service, unless it is known that such wells are either cased to 100 feet below ground level or a minimum of 30 feet below the water table.

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