

US EPA ARCHIVE DOCUMENT

EFB
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Date Out EFB: JUN 3 1982

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

From: Dr. Willa Garner, Chief *W*
Review Section No. 1
Environmental Fate Branch
Hazard Evaluation Division (TS-769)

Attached please find the environmental fate review of:

Reg./File No.: 264-330 and 264-331

Chemical: Aldicarb

Type Product: Insecticide

Product Name: TEMIK

Company Name: Union Carbide

Submission Purpose: Supplementary data to the 1981 groundwater
contamination data

ZBB Code: other

ACTION CODE: 436

Date In: 5/12/82

EFB # 323 and 324

Date Completed: JUN 3 1982

TAIS (level II)

Days

60

2

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

1. INTRODUCTION

1.1 The PM has submitted supplementary aldicarb data (accession numbers 247404 and 247405) on the sampled Long Island wells (refer to the May 10, 1982 review of the 1981 aldicarb groundwater contamination data, section 4.10) and information on Union Carbide resampling efforts in Maine and Wisconsin (no accession number). See RECOMMENDATIONS, section 3.1, below.

1.2 The INTERA model has been rerun using different loading and degradation rates. In the original (1980) INTERA run, 2 methods were used: (1) 20% loading with an infinite half-life and (2) an 85% loading with a 5-year half-life. In the rerun, simulations with half-lives of infinity and 1, 2, 3 and 5 years and loading of 5 and 25% were used. Other input parameters remained the same as in the original run and are listed in the Table 1, below. The 1980 run predicted that it would take 20 years for aldicarb groundwater levels in Long Island to decline to current guideline levels and 100 years to exit the system.

2. RESULTS

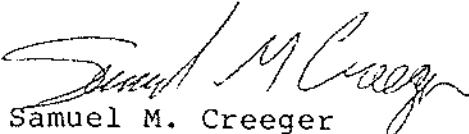
2.1 With a half-life of 3 years or less and a loading of 25% or less, the INTERA model predicts groundwater contamination levels will be at or below 7 ppb by 1987. See Table 2, below.

2.2 Copies of the 1980 original INTERA run and the rerun (revised April 27, 1982) are in the EFB file.

3. RECOMMENDATIONS

3.1 Receipt of the supplementary aldicarb data on the sampled Long Island wells and the information on the resampling efforts in Maine and Wisconsin is acknowledged. The data does not alter the recommendations in the May 10, 1982 review of the 1981 groundwater monitoring data.

3.2 The prediction in section 2.1, above, is noted. It is recommended that Union Carbide do field sampling to support their predictions.


Samuel M. Creeger
June 2, 1982
Section #1/EFB
Hazard Evaluation Division