098301

Date Out EFB: JUN 1 1982

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

From: Dr. Willa Garner, Chief
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 10G and 15G

Company Name: Union Carbide

Submission Purpose: Assess potential for surface runoff

ZBB Code: other

Date In: 5/7/82

Date Completed: JUN 1 1982

ACTION CODE: 570

EFB # 315 and 316

TAIS (level II)	Days
60	2

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

1. INTRODUCTION

This is a resubmission from the PM containing different instructions to EFB than those given in the original. The new instructions ask if aldicarb will move laterally. To answer this question, potential for surface runoff of aldicarb residues will be assessed from the data referenced.

2. DISCUSSION

The data referenced (accession numbers 096240, 096670, 096671, 244091 and 246960) show aldicarb residues to be non-detectable to low in surface runoff water under the conditions of the studies. One study of a sloped field treated at 10 lb ai/A followed by exaggerated irrigation of 1 acre inch/hour for 5 hours resulted in maximum residues in runoff of 0.08 ppm. Those residues would be diluted upon reaching a body of water. In another study, irrigation water leaving aldicarb treated hops fields was found to contain 4 ppb or less of total aldicarb residues at distances 1/4 mile or greater from the edge of the treated field. In all cases, note that residues would be composed of a mixture of parent aldicarb, aldicarb sulfoxide and aldicarb sulfone and that all uses associated with the subject products involve soil incorporation of the granules which greatly diminishes potential for surface runoff. Leaching would be the overriding manifestation of soil mobility.

3. CONCLUSIONS

The data show that surface runoff of total aldicarb residues from aldicarb treated fields would be, in most cases, below 5 ppb before entering a body of water. Note that those residues would be composed principally of parent aldicarb, aldicarb sulfoxide and aldicarb sulfone.

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June 1, 1982
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