

US EPA ARCHIVE DOCUMENT

To: Product Manager 21 (Wilson)  
 TS-767

Through: Dr. Gunter Zweig, Chief  
 Environmental Fate Branch

Through: Mr. James Conlon, Acting Director  
 Hazard Evaluation Division, TS-769

From: Review Section No. 1 *R. Rey*  
 Environmental Fate Branch

Attached please find the environmental fate review of:

Reg./File No.: 100-EUP-62

Chemical: N-(2,6-dimethylphenyl)-N-(methoxyacetyl)

alanine methyl ester, Tradename Ridomil 2E

Type Product: I, D, H; (F,) N, R, S, Fungicide

Product Name: Ridomil 2E

Company Name: Ciba-Geigy Corp

Submission Purpose: Experimental Use permit; control of

black shank on tobacco

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Date in: 8-2-78

Date out:

1.0 Introduction

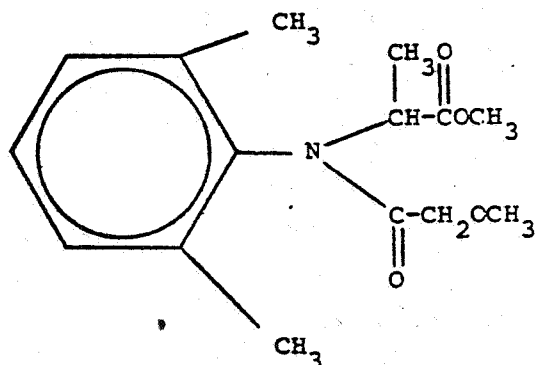
1.1 Rodomil, CGA-48988

1.2 New Chemical - N-(2,6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester

1.3 Percent Active: 25%  
2 lbs ai/gallon  
EC formulation

1.4 Structure:

Mode of Action:  
Fungicidal



1.5 Physical / Chemical Properties

|                      |   |
|----------------------|---|
| Empirical Formula    | C <sub>15</sub> H <sub>21</sub> NO <sub>4</sub> |
| Mol. wt.             | 279.34  |
| Solubility 20 C°     | H <sub>2</sub> O - 7100 ppm                     |
| Vapor Pressure 20 C° | 2.2 x 10 <sup>-6</sup> mmHg.                    |

1.6 A total of 860 lbs ai (430 gallons) are to be shipped covering 430A in 10 states east of the Mississippi (CN, FL, GA, KN, MO, NC, PA, SC, TN, VA) per 1 year - proposed EUP is for two years (for use on tobacco).

2.0 Directions for Use.

Flue-Cured Tobacco

Rate of Ridomil 2E per arce

Disease Level expected\*

Application Low Moderate High Very High

Broadcast before  
or after bedding 1 qt. 2 qts. 4 qts. 6 qts.

Band (per 12,500 ft. of row)\*\* 1-qt. 2-qts. 4-qts. 6-qts.

\*Fields where disease symptoms have occurred on less than 1% of plants have a low disease level; 1-6% loss is a moderate disease level; 7-25% loss is a high disease level; losses in excess of 25% are a very high disease level.

\*\*A band application of 1, 2, 4 or 6 qts. per acre of tobacco (12,500 ft. of row) is equal to 2.6, 5.2, 10.3 or 15.5 fl. oz. per 1,000 ft. of row, respectively, for any row spacing. Incorporate top 2-4" of soil immediately after application.

Burley and Other Tobacco

Band Treatment: Apply Ridomil 2E at 4 to 6 qts. per acre of tobacco (12,500 ft. of row) or 10.3 to 15.5 fl. oz. per 1,000 ft. of row. Apply in an 18-24 inch band over the row and incorporate into the top 3-4 inches of soil immediately after application with an appropriate incorporation implement.

Broadcast Treatment: Apply 4-6 qts. per acre. Incorporate in the top 3-4 inches of soil immediately after application with an appropriate incorporation implement.

Rotational Corps

If replanting is necessary, tobacco may be replanted immediately. Do not make a second application of Ridomil 2E. Tobacco may be planted the year following treatment. Other crops may be planted 18 months following application.

2.1 Disposal

Keep out of lakes, streams or ponds. Do not contaminate water by cleaning of equipment or disposal of wastes.

3.0 Discussion of Data

Data will be reviewed for permit only.

| Environmental Parameter | Parent t-1/2                                     | Degradate/metabolite  | Other Characteristics                                 |
|-------------------------|--|---|---|
| Hydrolysis              | Stable<br>pH 5,7,9<br>[>200d; 5,7]<br>[>100d; 9] | 1 ) N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alanine                                  | #Extreme pH<br>1 and 10<br>to t 1/2 >28d<br>and 3-7d. |
| Photolysis (Soil)       | Stable   |   |   |
| Soil (Aerobic)          | 35d.   | 1) N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alanine<br><br>2) 2,6-dimethylacetanilide | Bound residues<br>27% at 1 3D,<br>10% at 360d.        |
| Soil (Anaerobic)        | 50-80d   | Same  | Bound residues<br>9.0% at 58d.                        |

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Mobility Both parent and degradate leach to the 15-30 cm depth in sandy soils. In loamy soils the parent and degradate leach to the 15 cm level. O.M. related.

Adsorption/ Desorption Parent does not adsorb/desorb readily.

#### 4.0 General Conclusions

Microbial action is important to the degradation and dessipation of this chemical.

Crop rotation interval of 18 mos. is satisfactory for this permit.

#### 5.0 Recommendations

5.1 We have enough data to assess the environmental fate of this compound for the EUP.

5.2 Data has been reviewed/validated for the EUP only and has not been reviewed/validated for registration.

5.3 All Environmental Chemistry data in Section 3 Regulations will be required for registration (See attached sheet).

*REMOVED 11/27/76*  
*Robert F. Carsel* 12/1/78.  
Robert F. Carsel  
Environmental Fate Branch  
Hazard Evaluation Division

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