

US EPA ARCHIVE DOCUMENT

Shaughnessy No.: 109801

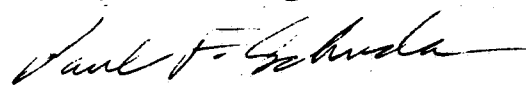
Date Out of EAB: 8/19/88

To: Lois Rossi  
Product Manager #21  
Herbicide- Fungicide Branch  
Registration Division (TS-767C)

From: Emil Regelman, Supervisory Chemist  
Review Section #3  
Exposure Assessment Branch  
Hazard Evaluation Division (TS-769C)



Thru: Paul F. Schuda, Ph.D., Chief  
Exposure Assessment Branch  
Hazard Evaluation Division (TS-769C)



Attached, please find the EAB review of...

Reg./File # : PP #6F3443 and FAP #6H5507

Common Name: Iprodione

Type Product : Fungicide

Product Name : Rovral, Glycophene

Company Name : Rhone-Poulenc Ag Company

Purpose : Acknowledge that Rhone-Poulenc (registrant) intends to repeat  
the anaerobic aquatic metabolism (§162-3), aerobic aquatic  
metabolism (§162-4), and aquatic field (sediment) dissipation  
(§164-2) studies.

Date Received: 7/22/88

Action Code(s): 231 and 251

Date Completed: 8/18/88

EAB #(s) : 80899, 80900

Monitoring study submitted:       

Total Reviewing Time: 1 day

Monitoring study voluntarily:       

Deferrals to:        Ecological Effects Branch  
       Residue Chemistry Branch  
       Toxicology Branch

1. CHEMICAL: Common name(s):

Iprodione

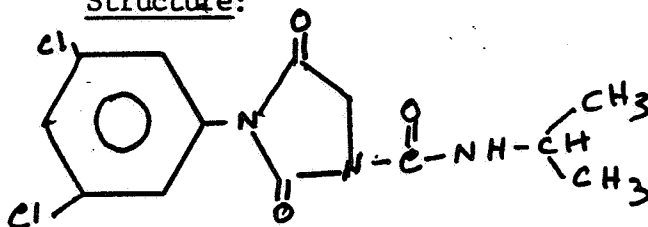
Chemical name:

3-(3,5-Dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide.

Other name(s):

Rovral, RP-26019, Glycophene

Structure:



Formulations:

50% WP

Physical/Chemical properties:

Molecular formula:  $C_{13}H_{13}Cl_2N_3O_3$ .

Molecular weight: 329.5

Physical state: White, odorless, non-hygroscopic crystal.

Solubility: Soluble in acetone and benzene. Almost insoluble in water (13 mg/L).

2. TEST MATERIAL:

N/A.

3. STUDY/ACTION TYPE:

Acknowledge that Rhone-Poulenc (registrant) intends to repeat the anaerobic aquatic metabolism (§162-3), aerobic aquatic metabolism (§162-4), and aquatic field (sediment) dissipation (§164-2) studies.

4. STUDY IDENTIFICATION:

N/A.

5. REVIEWED BY:

Padma Datta, Ph.D.  
Chemist  
Review Section #3  
EAB/HED/OPP

Signature: PKDatta

Date: 8/18/88

6. APPROVED BY:

Emil Regelman  
Supervisory Chemist  
Review Section #3  
EAB/HED/OPP

Signature: Emil Regelman

Date: Aug 19 1988

7. CONCLUSION:

EAB acknowledges Rhone-Poulenc's intention to repeat the anaerobic aquatic (\$162-3) and aerobic aquatic (\$162-4) metabolism studies; and, the aquatic field dissipation study (\$164-2).

8. RECOMMENDATION:

RD should inform Rhone-Poulenc their decision to repeat the anaerobic aquatic (\$162-3) and aerobic aquatic (\$162-4) metabolism studies for a duration of a year (365 days); and, to redo the aquatic field dissipation studies in LA and AR rice fields (\$164-2) in accordance with Subdivision N of the Pesticide Assessment Guidelines is acceptable to EAB.

9. BACKGROUND:

On 7/18/88, Rhone-Poulenc submitted a letter stating they intended to redo the anaerobic aquatic (\$162-3) and aerobic aquatic (\$162-4) metabolism studies; and, the aquatic field dissipation study in LA and AR rice fields (\$164-2); since the deficiencies cited in EAB reviews #60818 (7/30/87) and #80464 (6/24/88) are not easily resolved.

10. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES:

N/A.

11. COMPLETION OF ONE-LINER:

See attached one-liner.

12. CBI APPENDIX:

N/A.

EXPOSURE ASSESSMENT BRANCH  
PESTICIDE ENVIRONMENTAL FATE ONE-LINER

01/01/84

GLYCOPHENE

File No.: 109801 CAS No.: 36734-19-7  
Type Pesticide FUNGICIDE  
Chemical Name: 3(3,5-DICHLORO-PHENYL)-N-(1-METHYL)-2,4-DIOXO-  
-1-IMIDAZOLIDINE CARBOXAMIDE  
Empirical Form.: C14H15N3O3C12  
Uses:  
Form. Type:

Mole Wt.	Sol. @20C (ppm)	Vap.Pres.(torr)	Log Kow	Henry
330.2	13.00	<1.0E-5	0.00	

Hydrolysis (161-1)

pH 5: pH3 STABLE

pH 7: pH6 20 DA

pH 9: 1 DA

Photolysis (161-2, -3, -4)

Air:

Soil:7-14 DA

Water:3-7 DA

Mobility Studies (163-1)

Soil Partition (Kd)

1

2

3

4

5

Rf Factors

Soil Metabolism Studies - Terrestrial

Aerobic (162-1)

1 20-70 DA

2 50-70 DA CLAY LOAM

3 30-50 DA SILTY CLAY LOAM

4

5

6

7

Anaerobic (162-2)

20-50 DA CLAY LOAM

50 DA SILTY CLAY LOAM

Soil Metabolism Studies - Aquatic

Aerobic (162-4)

1

2

3

4

Anaerobic (162-3)

Field Dissipation Studies

Terrestrial (164-1)

1 20-40 DA SAND, LOAM, SANDY CL LM

2 20-40 DA SANDY LOAM CLAY LOAM

3

4

5

6

Aquatic 164-2)

\*\* EPA Acceptable Study

# Supplemental (Scientifically Sound) Information

GLYCOPHENE

Field Dissipation Studies  
Forest (164-3)

Other (164-5)

1  
2

Ground Water Findings

1  
2  
3

Rotational Crop Restrictions (165-1, -2)

1  
2

Fish Accumulation Studies (165-4)

- 1 BLUEGILL EDIBLE 102X; VISCERA 555X; WHOLE 180X
- 2 CATFISH EDIBLE <50X; VISCERA 500X; WHOLE <50X

Degradation Products

1  
2  
3  
4  
5

Notes

GLYCOPHENE

Leaching - soil column study

Soil column - glycophene leached 10-15 cm in 30 cm column with 50 cm water in 30 hrs using loamy sand, sandy loam and clay loam. It leached 15-20 cm for silty clay loam.

Leaching is a potential problem only in soils of acid pH and fine texture.

Degradation

pH and temperature have marked effect on persistence.

Degradation Products.

dichloroaniline

dichloro-3,5-phenylcarbamoyl-1-isopropyl-3-hydantoin

1-(3,5-dichlorophenyl)carbamoyl-3-(1-methyl ethyl)-  
-1-ureylene-acetic acid

3-(1-methyl ethyl-N-(3,5-dichlorophenyl)-1-ureylene acetamide

3-(3,5-dichlorophenyl)-1-ureylene acetic acid

References

Writer