7-15-77
L.A.W(2)

- 109801

EEE BRANCH REVIEW

DATE: IN 6/8/77 OUT 7/15/77 IN ____ OUT ____ IN ____ OUT ____

FISH & WILDLIFE ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. ____

PETITION OR EXP. PERMIT NO. 359-EUP-57

DATE DIV. RECEIVED June 5, 1977

DATE OF SUBMISSION May 2, 1977

DATE SUBMISSION ACCEPTED ____

TYPE PRODUCT(S): I, D, H(F) N, R, S Fungicide

PRODUCT MGR. NO. L. Zink

PRODUCT NAME(S) Chipco 26019

COMPANY NAME Rhodia, Inc.

SUBMISSION PURPOSE EUP - TURF

CHEMICAL & FORMULATION [3-3,5-dichlorophenyl-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide].....53.16
Inert Ingredients.....46.84

I RPAR Considerations

Based upon data available, the use pattern for Chipco 26019 is not a candidate for RPAR.

Refer to Section VIII (Hazard Assessment) for complete discussion.

II DATA SUMMARY SHEET

Test	Data Review Number	Accession Number	Owner	Classification of Study	Satisfaction of Regulatory Requirements
Avian Acute Oral LD_{50}	(ES) VII. C-1	-	Rhodia Inc. Ag. Div.	Supplemental	No
Avian Acute Oral LD_{50}	(ES) VII. C-2	-	Rhodia Inc. Ag. Div.	Supplemental	No
Avian 8-day Dietary LC_{50} (Upland Game-bird)	(ES) VII. D-1	-	Rhodia Inc. Ag. Div.	Core	Yes
Avian 8-day Dietary LC_{50} (Waterfowl)	(ES) VII. E-1	-	Rhodia Inc. Ag. Div.	Core	Yes
Fish Acute 96-hr LC_{50} (Warmwater)	(ES) VII. F-1	-	Rhodia Inc. Ag. Div.	Invalid	No
Fish Acute 96-hr LC_{50} (Warmwater)	(ES) VII. F-2	-	Rhodia Inc. Ag. Div.	Core	Yes
Fish Acute 96-hr LC_{50} (Coldwater)	(ES) VII. G-2	-	Rhodia Inc. Ag. Div.	Core	Yes

III Use History/Accident Profiles (pers)

No reported history of fish and wildlife accidents associated with Chipco 26019.

IV Products/Use Patterns.

~~A. Manufacturing Use~~

~~1. Use classification: No classification required.~~

~~2. Labeling:~~

~~All data requirements have been completed. Therefore, revised labeling is not appropriate. Existing label will remain in effect.~~

~~3. Data Requirements/Gaps~~

~~a) Data Requirements satisfied:~~

~~1) Avian 8-day Dietary LC_{50} (Upland Gamebird).~~
~~2) Avian 8-day Dietary LC_{50} (Waterfowl).~~
~~3) Fish Acute 96-hour LC_{50} (Warmwater).~~
~~4) Fish Acute 96-hour LC_{50} (Coldwater).~~

~~b) Data gaps:~~

~~1) Avian acute oral LD_{50}.~~
~~2) Aquatic invertebrate acute 48-hour LC_{50}.~~

B. Outdoor (Terrestrial) Use

1. Use classification: Not applicable (EUP).

2. Labeling:

All data requirements have not been completed. Therefore, revised labeling is not appropriate. Existing label will remain in effect.

3. Data Requirements/Gaps

a) Data requirements satisfied:

1) Avian 8-day Dietary LC_{50} (Upland gamebird).
2) Avian 8-day Dietary LC_{50}(Waterfowl).
3) Fish Acute 96-hr LC_{50} (Warmwater).
4) Fish Acute 96-hr LC_{50} (Coldwater).

b) Data gaps:

1) Avian acute oral LD_{50}.
2) Aquatic invertebrate acute 48-hr LC_{50}.

VI Review of Subject File

No material in subject file.

VII Data Reviews

(See ~~following pages~~ SECTION II)

VIII Hazard Assessment

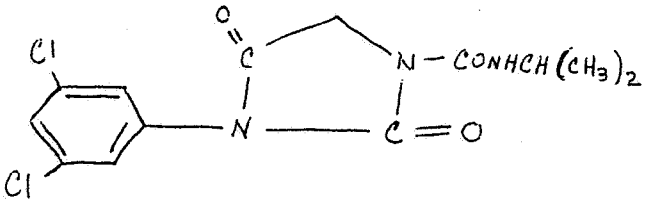
A. Chemical and Physical Properties:

1. Chemical Name:

[3-3,5-dichlorophenyl-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide].....53.16%
Inert Ingredients.....46.84%

2. Common Name: Chipco 26019

3. Structure



4. Mol. Wt. 330.17

5. Off-white, cream colored, odorless powder

6. Vapor pressure: $< 1 \times 10^{-5}$ mm Hg @ 20°C

7. Solubility at 20°C:

Water	≃ 13 ppm
Ethanol	≃ 25 gm/l
Acetone	≃ 25 gm/l
Methyl Chloride	≃ 500 gm/l

B. Formulation:
1. Technical (glycophen).....53.16%

[redacted]

C. Behavior in the Environment: INERT INGREDIENT INFORMATION IS NOT INCLUDED

See previous review by G.L. Gavin (3-21-77)

D. Acute Toxicity (Mammals)

1) Rat Acute Oral LD_{50} - 3,700 mg/kg (Technical)
2) Rat Acute Oral LD_{50} -12,500 mg/kg (50% WP)

E. Hazard Assessment (Discussion)

1) Pesticidal use is turf fungicide on golf courses, sod farms and other turf areas.

2) Application Methods/Rates

Chipco 26019 is a contact fungicide which may be used in a seasonal program to control several diseases on common turf grasses. On all diseases apply as a foliar spray, using 2 to 10 gallons of water per 1000 sq. ft., as indicated in the table below. Apply with a properly calibrated sprayer.

Disease	Interval of Applications	Rate oz.AI/1000 ft^2	Rate oz. form./1000 ft^2
Snow Mold: Gray Snow Mold (Typhula spp.) Pink Snow Mold (Fusarium nivale)	One Application before first snow fall-if possible, one application during mid-winter thaw.	1.0 - 2.0	2.0 - 4.0
Fusarium Patch (Fusarium nivale)	Pacific North-west-up to 10 applications on a 21 day schedule beginning prior to disease develop-ment.	1.0 - 2.0	2.0 - 4.0

Begin applications when conditions favor disease and repeat at recommended interval. Do not cut treated areas or water until foliage is completely dry. Maintain agitation during spray operations.

3) Location of EUP test sites:

State	No. Tests	Acreage	Average # of Applications
California	2	0.92	10
Idaho	2	0.92	2
Maine	1	0.46	2
Massachusetts	2	0.92	2
Michigan	3	1.38	2
Minnesota	2	0.92	2
New Hampshire	2	0.92	2
New York	3	1.38	2

Location of EUP Test Sites (Cont'd):

Ohio	1	0.46	2
Oregon	4	1.84	10
Pennsylvania	3	1.38	2
Rhode Island	1	0.46	2
Washington	4	1.84	10
Wisconsin	2	0.92	2
Total	32	14.72	

4) Likelihood of Exposure to Nontarget Species:

The proposed use of Chipco 26019 as a turf fungicide prescribes foliar application from September through April. The toxicant will be exposed to some songbirds, waterfowl and herbivorous mammals on golf courses and other turf areas. However, relatively few of these nontarget species will utilize such treated areas during winter months in the northern latitudes--migratory birds will not be present; herbivorous mammals will largely shift their diet to woody browse.

The avian dietary toxicity studies indicated that Chipco 26019 is only slightly toxic to birds and mammals. Although toxicant residue will be high on turf (650 to 1300 ppm per application), it is safely below lethal dietary concentrations for birds and mammals.

The fish acute toxicity studies indicated relatively low LC_{50} values (2.63 ppm to 6.70 ppm). Spring run-off of snow could possibly transport high residues of the toxicant into water bodies. Accidental contamination of water should be avoided.

F. Summary: Adequacy of supporting toxicity data for fish and wildlife.

1. Basic studies:

a) Bird studies

The avian subacute dietary studies for waterfowl and an upland gamebird are acceptable. The acute oral toxicity studies submitted were invalid because (1) test birds were too young, (2) test birds were not observed for the minimum time period after dosing, and (3) there was no data on weight and food consumption of test birds. Because treatment levels used for the waterfowl subacute dietary study were technically incomplete, the Environment Safety Section would prefer that the mallard be used as the test species for the

avian acute oral study which is required.

b) Fish Studies:

Fish acute toxicity studies for warmwater and coldwater fish were acceptable.

Note that the acute toxicity study for bluegill sunfish was invalid because Table III was omitted from the report.

c) Aquatic Invertebrate Study:

An acute 48-hour LC_{50} study for an aquatic invertebrate has not been submitted.

2. Conditional Studies:

Based on data available to the Environmental Safety Section at this time, there will be no need for conditional studies on Chipco 26019.

IX Recommendations

Based on the available toxicity data, the proposed use of Chipco 26019 does not appear to pose an acute hazard to fish and wildlife.

The toxicity data which has been submitted are adequate. The Environmental Safety Section does not object to the proposed EUP.

Lamar A. Windberg WC.
Lamar A. Windberg
Environmental Safety Section
EEEB-RD
July 17, 1977