



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 19 1993

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MEMORANDUM

Subject: Triadimefon Data Requirements Update

From: Anthony F. Maciorowski, Chief
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C)

To: Mark Wilhite, PM Team 53 Reviewer
Special Review and Reregistration Division (H7508C)

Attached are 5 actions (D167380, D174193, D166958,
D179333, and D162709, Case No. 816353, S# 109901) which resulted
in 14 EEB Data Evaluation Record of studies plus 2 addendums
for previously submitted studies.

The enclosed table, "Data Requirements for Ecological
Effects Branch", summarizes the data requirements for
triadimefon.

Please contact Dennis J. McLane (305-5096) if you have any
further questions.



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Date: 4-9-93
Case No: 816353
Chemical No: 109901

TRIADIMEFON
DATA REQUIREMENTS FOR
ECOLOGICAL EFFECTS BRANCH

Data Requirements	Composition ¹	Use Group ²	Does EPA Have Data To Satisfy This Requirement? (Yes, No)	Bibliographic Citation	Must Additional Data Be Submitted under FIFRA 3(c)(2)(B)?
6 Basic Studies in Bold					
71-1(a) Acute Avian Oral, Quail/Duck	(TGAI)	A,C,I,K	YES	41895901	NO
71-1(b) Acute Avian Oral, Quail/Duck	(TEP)	-----	NO	-----	NO
71-2(a) Acute Avian Diet, Quail	(TGAI)	A,C,I,K	YES	00050066	NO
71-2(b) Acute Avian Diet, Duck	(TGAI)	A,C,K	NO	00050067	YES
71-3 Wild Mammal Toxicity	(TGAI)	-----	NO	-----	NO
71-4(a) Avian Reproduction Quail	(TGAI)	A,C	YES	248177, 42342301	NO
71-4(b) Avian Reproduction Duck	(TGAI)	A,C	YES	42342302	NO
71-5(a) Simulated Terrestrial Field Study	-----	-----	NO	-----	NO
71-5(b) Actual Terrestrial Field Study	-----	-----	NO	-----	NO
72-1(a) Acute Fish Toxicity Bluegill	(TGAI)	A,C,K	NO	00070704	YES
72-1(b) Acute Fish Toxicity Bluegill	(TEP)	A,C	NO	147863 or 460087004*	NO
72-1(c) Acute Fish Toxicity Rainbow Trout	(TGAI)	A,C,I,K	NO	00070704	YES
72-1(d) Acute Fish Toxicity Rainbow Trout	(TEP)	A,C	NO	147864 or 460087005*	NO
72-2(a) Acute Aquatic Invertebrate Toxicity	(TGAI)	A,C,I,K	YES	231311, 147862 or 460089003	NO
72-2(b) Acute Aquatic Invertebrate Toxicity	(TEP)	A,C	NO	147865 or 460087006	NO
72-3(a) Acute Estu/Mari Tox Fish	(TGAI)	-----	NO	NO	RESERVED
72-3(b) Acute Estu/Mari Tox Mollusk	(TGAI)	-----	NO	NO	RESERVED
72-3(c) Acute Estu.Mari Tox Shrimp	(TGAI)	-----	NO	NO	RESERVED

* In Bibliographic Citation column indicates study may be upgradeable

Date:4-9-93
Case No:816353
Chemical No:109901

TRIADIMEFON
DATA REQUIREMENTS FOR
ECOLOGICAL EFFECTS BRANCH

Data Requirements	Composition ¹	Use Group ²	Does EPA Have Data To Satisfy This Requirement? (Yes, No)	Bibliographic Citation	Must Additional Data Be Submitted under FIFRA3(c)(2)(B)?
72-3(d) Acute Estu/Mari Tox Fish	(TEP)	-----	NO	-----	RESERVED
72-3(e) Acute Estu/Mari Tox Mollusk	(TEP)	-----	NO	-----	RESERVED
72-3(f) Acute Estu/Mari Tox Shrimp	(TEP)	-----	NO	-----	RESERVED
72-4(a) Early Life-Stage Fish	(TGAII)	A,C	NO	248177 41922103* 251243	YES
72-4(b) Life-Cycle Aquatic Invertebrate	(TGAII)	A,C	YES	246736 41922102	NO
72-5 Life-Cycle Fish	(TGAII)	A,C	NO	-----	RESERVED
72-6 Aquatic Org. Accumulation	(TGAII)	A,C	NO	-----	NO
72-7(a) Simulated Aquatic Field Study	(TEP)	A,C	NO	-----	NO
72-7(b) Actual Aquatic Field Study	(TEP)	A,C	NO	-----	NO
122-1(a) Seed Germ./Seedling Emerg.	(TGAII)	A,C	NO	-----	NO
122-1(b) Vegetative Vigor	(TGAII)	A,C	NO	-----	NO
122-2 Aquatic Plant Growth	(TGAII)	A,C	NO	-----	NO
123-1(a) Seed Germ./Seedling Emerg.	(TGAII)	A,C	NO	-----	NO
123-1(b) Vegetative Vigor	(TGAII)	A,C	NO	-----	NO
123-2 Aquatic Plant Growth	(TGAII)	A,C	NO	159558 41616007	YES
124-1 Terrestrial Field Study	(TGAII)	A,C	NO	-----	NO
124-2 Aquatic Field Study	(TGAII)	A,C	NO	-----	RESERVED
141-1 Honey Bee Acute Contact	(TGAII)	A,C	YES	42307804	NO
141-2 Honey Bee Residue on Foliage	(TGAII)	A,C	NO	-----	NO
141-5 Field Test for Pollinators	(TGAII)	A,C	NO	-----	NO

* In Bibliographic Citation column indicates study may be upgradeable

1. Composition: TGA1 = Technical grade of the active ingredient; PAIRA = Pure active ingredient, radiolabeled; TEP = Typical end-use product

2. Use Group: A = Terrestrial/Food; B = Terrestrial/Feed; C = Terrestrial Non-Food; D = Aquatic Food; E = Aquatic Non-Food (Outdoor); F = Aquatic Non-Food (Industrial); G = Aquatic Non-Food (Residential); H = Greenhouse Food; I = Greenhouse Non-Food; J = Forestry; K = Residential Outdoor; L = Indoor Food; M = Indoor Non-Food; N = Indoor Medical; O = Indoor Residential; Z = Use Group for Site 0000

EEB files

DP BARCODE: D166958

REREG CASE # 2700

CASE: 816353
SUBMISSION: S400153

DATA PACKAGE RECORD
BEAN SHEET

DATE: 07/29/91
Page 1 of 1

* * * CASE/SUBMISSION INFORMATION * * *

CASE TYPE: REREGISTRATION ACTION: 627 GENERIC DATA SUBMISSION
CHEMICALS: 109901 1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triaz

ID#: 109901-003125

COMPANY: 003125 MOBAY CORPORATION

PRODUCT MANAGER: 51 BARBARA BRISCOE

703-308-8065 ROOM: CS1 3H3

PM TEAM REVIEWER: FRANKLIN RUBIS

703-308-8184 ROOM: CS1 4J6

RECEIVED DATE: 05/30/91 DUE OUT DATE: 08/28/91

* * * DATA PACKAGE INFORMATION * * *

DP BARCODE: 166958 EXPEDITE: N DATE SENT: 07/29/91 DATE RET.: / /
CHEMICAL: 109901 1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-

DP TYPE: 999 Miscellaneous Data Package

ADMIN DUE DATE: 10/27/91

CSF: N

LABEL: N

ASSIGNED TO	DATE IN	DATE OUT
DIV : EFED	08/01/91	/ /
BRAN: EEB	/ /	/ /
SECT:	/ /	/ /
REVR :	/ /	/ /
CONTR:	/ /	/ /

* * * DATA REVIEW INSTRUCTIONS * * *

For the attached reregistration case, please review this study [GDLN 71-1. MRID 418959-01].

* * * ADDITIONAL DATA PACKAGES FOR THIS SUBMISSION * * *

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL
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DP Barcode : D166958
PC Code No : 109901
EEB Out :

To: Mark Wilhite
PM Team Reviewer 53
Special Review & Reregistration Division (H7508C)

From: Anthony F. Maciorowski, Chief
Ecological Effects Branch/EFED (H7507C)

Attached, please find the EEB review of...

Reg./File # : 003125
Chemical Name : 1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H1,2,4 -
triazol-1-yl)-2-butanone
Type Product : Fungicide
Product Name :
Company Name : Mobay Corporation
Purpose : Review 71-1(a) MRID 41895901
Action Code : 627 Date Due : 10/27/91
Assigned Scientist : McLane, Dennis J. Date In EEB: 08/01/91

EEB Guideline/MRID Summary Table: The review in this package contains an evaluation of the following:

GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT
71-1(A)	41895901	Core	72-2(A)	N/A		72-7(A)	N/A	
71-1(B)	N/A		72-2(B)	N/A		72-7(B)	N/A	
71-2(A)	N/A		72-3(A)	N/A		122-1(A)	N/A	
71-2(B)	N/A		72-3(B)	N/A		122-1(B)	N/A	
71-3	N/A		72-3(C)	N/A		122-2	N/A	
71-3	N/A		72-3(C)	N/A		122-2	N/A	
71-4(A)	N/A		72-3(D)	N/A		123-1(A)	N/A	
71-4(B)	N/A		72-3(E)	N/A		123-1(B)	N/A	
71-5(A)	N/A		72-3(F)	N/A		123-2	N/A	
71-5(B)	N/A		72-4(A)	N/A		124-1	N/A	
72-1(A)	N/A		72-4(B)	N/A		124-2	N/A	
72-1(B)	N/A		72-5	N/A		141-1	N/A	
72-1(C)	N/A		72-6	N/A		141-2	N/A	
72-1(D)	N/A					141-5	N/A	

Y=Acceptable (Study satisfied Guideline)/Concur

P=Partial (Study partially fulfilled Guideline but additional information is needed)

S=Supplemental (Study provided useful information but Guideline was not satisfied)

N=Unacceptable (Study was rejected)/Nonconcur

N/A=No studies submitted for EEB.

DATA EVALUATION RECORD

1. **CHEMICAL:** Bayleton.
Shaughnessey No. 109901.
2. **TEST MATERIAL:** Bayleton (triadimefon) technical; 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone; CAS No. 43121-43-3; Batch No. 0-00-6021; 95.0% active ingredient; a white crystalline substance.
3. **STUDY TYPE:** Avian Oral LD₅₀ Test. Species Tested: Bobwhite quail (*Colinus virginianus*).
4. **CITATION:** Stafford, T.R. 1991. Technical Bayleton: An Acute Oral LD₅₀ With Bobwhite Quail. Mobay Report No. 101222. Performed by Biochemistry/Ecological Effects Group, Mobay Corporation, Stilwell, KS. Submitted by Mobay Corporation, Kansas City, MO. EPA MRID No. 418959-01.
5. **REVIEWED BY:**

Mark A. Mossler, M.S. Associate Scientist KBN Engineering and Applied Sciences, Inc.	Signature: <i>Mark A. Mossler</i> Date: 1/6/92
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6. **APPROVED BY:**

Michael Whitten, M.S. Wildlife Toxicologist KBN Engineering and Applied Sciences, Inc.	Signature: <i>Michael L. Whitten</i> Date: 1/6/92
Henry T. Craven, M.S. Supervisor, EEB/EFED USEPA	Signature: <i>Henry T. Craven</i> Date: <i>4/13/93</i>
7. **CONCLUSIONS:** This study is scientifically sound and meets the guideline requirements for an avian oral LD₅₀ toxicity test. The LD₅₀ value of Bayleton technical for adult bobwhite quail was >2,000 mg ai/kg. Therefore, this compound is classified as practically non-toxic to the bobwhite quail. The NOEL was 1,000 mg ai/kg.
8. **RECOMMENDATIONS:** N/A.
9. **BACKGROUND:**

RIN 5710-93

TRIADMEFON EFB REVIEW

Page is not included in this copy.

Pages 8 through 11 are not included.

The material not included contains the following type of information:

- ☐ Identity of product inert ingredients.
- ☐ Identity of product impurities.
- ☐ Description of the product manufacturing process.
- ☐ Description of quality control procedures.
- ☐ Identity of the source of product ingredients.
- ☐ Sales or other commercial/financial information.
- ☐ A draft product label.
- ☐ The product confidential statement of formula.
- ☐ Information about a pending registration action.
- ☒ FIFRA registration data.
- ☐ The document is a duplicate of page(s) .
- ☐ The document is not responsive to the request.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

7-day body weights

Summary Statistics and ANOVA

Transformation =

None

Group <i>dosage (mg ai/kg)*</i>	n	Mean	s.d.	cv%
1 = control	10	225.6000	17.2961	7.7
2 63	10	225.7000	17.1791	7.6
3 125	10	229.2000	17.9741	7.8
4 250	10	225.3000	14.0321	6.2
5 500	10	224.3000	14.3298	6.4
6 1,000	10	214.2000	9.5196	4.4
7* 2000	10	195.8000	14.1955	7.2

*) the mean for this group is significantly less than the control mean at alpha = 0.05 (1-sided) by Dunnett's test

Minumum detectable difference for Dunnett's test = -15.946998
This difference corresponds to -7.07 percent of control

Between groups sum of squares = 8143.485714 with 6 degrees of freedom.

Error mean square = 230.246032 with 63 degrees of freedom.

Bartlett's test p-value for equality of variances = .644

* Based on minimal concentrations of ai

NOEL = 1,000 mg ai/kg

Raw data from Table Appendix 3 (Attached).

Study/Species/Lab/ MRID #	Chemical % a.i.	Results	Reviewer/ Date	Validation Status
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14-Day Single Oral LD₅₀ 95.0% LD₅₀ - 7200 ^{mg a.i./kg} 95% C.L. _{mg/kg (n/a)} Control Mortality (%) - 0

Species Colinus virginianus Slope - n/a # Animals/Level - 10 Age (Days) - 23 ^{weeks} Sex - 5 ♂
Lab Hobart Corp. 12/19/91 Core

MRID # 418459-01 14-Day Dose Level ^{mg a.i./kg} 63 (0), 125 (0), 250 (0), 500 (0), 1000 (0) _{mg/kg (0)} Mortality (%) 0
Comments: NOTE = based on mg a.i./kg
* Based on revised amount of a.i.

8-Day Dietary LC₅₀ LC₅₀ - _____ 95% C.L. _____ Control Mortality (%) - _____

Species _____ Slope - _____ # Animals/Level - _____ Age (Days) - _____

Lab _____ Sex - _____

MRID # _____ 8-Day Dose Level pp /(% Mortality) (), (), (), (), (), ()

Comments: