

US EPA ARCHIVE DOCUMENT

(4-28-95)

DP Barcode : D210900
PC Code No : 110301
EEB Out :

To: Kathryn Davis
Chemical Review Manager 52
Special Review and Reregistration Division (7508W)

From: Anthony F. Maciorowski, Chief
Ecological Effects Branch/EFED (7507C)

Attached, please find the EEB review of...

Reg./File # : 110301-033068
Chemical Name : Erioglaucine
Type Product : Herbicide
Product Name : Aquashade
Company Name : Aquashade Inc.
Purpose : Submission of avian dietary LC50 studies in support of reregistration of Case No. 4010.

Action Code : 627 Date Due : 04/13/95
Scientist : Date In : 01/18/95

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)			72-2(A)			72-7(A)		
71-1(B)			72-2(B)			72-7(B)		
71-2(A)	435034-03	Y	72-3(A)			122-1(A)		
71-2(B)	435034-04	Y	72-3(B)			122-1(B)		
71-3			72-3(C)			122-2		
71-4(A)			72-3(D)			123-1(A)		
71-4(B)			72-3(E)			123-1(B)		
71-5(A)			72-3(F)			123-2		
71-5(B)			72-4(A)			124-1		
72-1(A)			72-4(B)			124-2		
72-1(B)			72-5			141-1		
72-1(C)			72-6			141-2		
72-1(D)						141-5		

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

DP BARCODE: D210900

REREG CASE # 4010

CASE: 816361
SUBMISSION: S479777

DATA PACKAGE RECORD
BEAN SHEET

DATE: 01/13/95
Page 1 of 1

* * * CASE/SUBMISSION INFORMATION * * *

CASE TYPE: REREGISTRATION ACTION: 627 CORE DATA 100.00 %
CHEMICALS: 110301 Erioglaucine

ID#: 110301-033068

COMPANY:

PRODUCT MANAGER: 52 KATHRYN DAVIS

703-308-8156 ROOM: CS1 3F3

PM TEAM REVIEWER: BONNIE ADLER

703-308-8523 ROOM: CS1 4N4

RECEIVED DATE: 10/19/94 DUE OUT DATE: 01/17/95

* * * DATA PACKAGE INFORMATION * * *

DP BARCODE: 210900 EXPEDITE: N DATE SENT: 01/13/95 DATE RET.: / /

CHEMICAL: 110301 Erioglaucine

DP TYPE: 999 Miscellaneous Data Package

CSF: N

LABEL: N

ASSIGNED TO	DATE IN	DATE OUT	ADMIN DUE DATE: 04/13/95
DIV : EFED	01/18/95	/ /	NEGOT DATE: / /
BRAN: EEB	01/18/95	/ /	PROJ DATE: / /
SECT:	/ /	/ /	
REVR :	/ /	/ /	
CONTR:	/ /	/ /	

* * * DATA REVIEW INSTRUCTIONS * * *

Please review the following avian studies for the chemical
aquashade - acid blue 9;

GDLN 71-2a Dietary LC50 with Bobwhite Quail; MRID 43503403

GDLN 71-2b Dietary LC50 with Mallard Duck; MRID 43503404

* * * DATA PACKAGE EVALUATION * * *

No evaluation is written for this data package

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

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL
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2

DP Barcode : D210902
PC Code No : 110302
EEB Out :

To: Kathryn Davis
Chemical Review Manager 52
Special Review and Reregistration Division (7508W)

From: Anthony F. Maciorowski, Chief
Ecological Effects Branch/EFED (7507C)

Attached, please find the EEB review of...

Reg./File # : 110302-033068
Chemical Name : Tartrazine
Type Product : Herbicide
Product Name : Aquashade
Company Name : Aquashade Inc.
Purpose : Submission of avian dietary LC50 studies in
support of reregistration of Case No. 4010.

Action Code : 627 Date Due : 04/13/95
Scientist : Date In : 01/18/95

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)			72-2(A)			72-7(A)		
71-1(B)			72-2(B)			72-7(B)		
71-2(A)	435034-03		72-3(A)			122-1(A)		
71-2(B)	435034-04		72-3(B)			122-1(B)		
71-3			72-3(C)			122-2		
71-4(A)			72-3(D)			123-1(A)		
71-4(B)			72-3(E)			123-1(B)		
71-5(A)			72-3(F)			123-2		
71-5(B)			72-4(A)			124-1		
72-1(A)			72-4(B)			124-2		
72-1(B)			72-5			141-1		
72-1(C)			72-6			141-2		
72-1(D)						141-5		

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

DP BARCODE: D210902

REREG CASE # 4010

CASE: 816362
SUBMISSION: S479779

DATA PACKAGE RECORD
BEAN SHEET

DATE: 01/13/95
Page 1 of 1

* * * CASE/SUBMISSION INFORMATION * * *

CASE TYPE: REREGISTRATION ACTION: 627 CORE DATA
CHEMICALS: 110302 Tartrazine

100.00 %

ID#: 110302-033068

COMPANY:

PRODUCT MANAGER: 52 KATHRYN DAVIS

703-308-8156 ROOM: CS1 3F3

PM TEAM REVIEWER: BONNIE ADLER

703-308-8523 ROOM: CS1 4N4

RECEIVED DATE: 10/19/94 DUE OUT DATE: 01/17/95

* * * DATA PACKAGE INFORMATION * * *

DP BARCODE: 210902 EXPEDITE: N DATE SENT: 01/13/95 DATE RET.: / /
CHEMICAL: 110302 Tartrazine
DP TYPE: 999 Miscellaneous Data Package

CSF: N

LABEL: N

ASSIGNED TO	DATE IN	DATE OUT	ADMIN DUE DATE: 04/13/95
DIV : EFED	01/18/95	/ /	NEGOT DATE: / /
BRAN: EEB	01/18/95	/ /	PROJ DATE: / /
SECT:	/ /	/ /	
REVR :	/ /	/ /	
CONTR:	/ /	/ /	

* * * DATA REVIEW INSTRUCTIONS * * *

Please review the following avian data for the chemical
aquashade - acid yellow 23;

GDLN 71-2a Dietary LC50 with Bobwhite Quail; MRID 43503403
GDLN 71-2b Dietary LC50 with Mallard Duck; MRID 43503404

* * * DATA PACKAGE EVALUATION * * *

No evaluation is written for this data package

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

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL
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100.0 Pesticide Name
Aquashade

100.3 Submission Purpose
Submission of two avian dietary LC₅₀ studies

101.0 Chemical and Physical Properties

101.1 Chemical Name
Erioglaucine, Tartrazine

101.2 Common Name
Aquashade

103.0 Toxicological Properties
8-day dietary LC₅₀ for bobwhite quail and
8-day dietary LC₅₀ for mallard duck.

105.0 Conclusions

A. Bobwhite Quail (LC₅₀, MRID No. 4350340-03)

This study indicates aquashade is practically nontoxic to bobwhite quail with an LC₅₀ > 5620 ppm. This study does fulfill the guideline requirements in support of reregistration for a formulated product, i.e., Aquashade.

B. Mallard Duck (LC₅₀, MRID No. 435034-04)

This study indicates aquashade is practically nontoxic to mallard duck with an LC₅₀ > 5620 ppm. This study does fulfill the guideline requirements in support of reregistration for a formulated product, i.e., Aquashade.

Curtis E. Laird 4-26-95
Curtis E. Laird, Fishery Biologist
Ecological Effects Branch
Environmental Fate and Effects Division (7507C)

Norman J. Cook 04.27.95
Norman J. Cook, Head-Section #2
Ecological Effects Branch
Environmental Fate and Effects Division (7507C)

for Douglas J. MacLorowski 4/28/95
Douglas J. MacLorowski, Chief
Ecological Effects Branch
Environmental Fate and Effects Division (7507C)

DATA EVALUATION RECORD
UPLAND GAME BIRD DIETARY LC₅₀ TEST
GUIDELINE 71-2 (A)

1. CHEMICAL: Erioglaucine, Tartrazine
Shaughnessey #: 110301, 110302
2. TEST MATERIAL: Aquashade: Acid Blue 9 - 23.63%; Acid Yellow 23 - 2.39%; Inerts - 73.98%; 13.9% Azure Blue dye.
3. CITATION: Campbell, S.M. and Beavers, J. B., 1994.
Laboratory: Wildlife International LTD
Sponsor: Applied Biochemists, Inc.
Laboratory Report ID: 196-101
Any Other Study ID: MRID No. 435034-03
4. REVIEWED BY:

Curtis E. Laird
Biologist
EEB/EFED
US EPA

Signature: *Curtis E. Laird*
Date: *4-26-95*
5. APPROVED BY:

Norman J. Cook
Head, Section #2
EEB/EFED
US EPA

Signature: *Norman J. Cook*
Date: *04.27.95*
6. CONCLUSION: This study indicates aquashade is practically nontoxic to bobwhite quail with an LC₅₀ > 5620 ppm, as Aquashade. This study does fulfill the guideline requirements in support of reregistration for a formulated product.
7. ADEQUACY OF THE STUDY: This study is classified as core for a formulated product.
8. RATIONAL FOR CLASSIFICATION: N/A

9. MATERIALS AND METHODS:

A. Test Organisms: Bobwhite Quail

Guideline Criteria	Reported Information
Species: An upland game bird species, preferably the bobwhite (<i>Colinus virginianus</i>).	Yes
Age at beginning of test: 10-14 days old.	10 days old
Supplier	Wildlife International production flock, Easton, MD
Acclimation period	10 days

Comments: N/A

B. Test System: Indoors Brooders

Guideline Criteria	Reported Information
Pen size: about 35 x 100 x 24 cm	72 x 90 x 23 cm
Brooder temperature: about 35°C (95°F)	37°C $\pm$ 1°C
Room temperature: 22-27°C (71-81°F)	27.7°C $\pm$ 0.8°C
Relative humidity: 30-80%	62% $\pm$ 11%
Adequate ventilation?	Yes
Photoperiod Minimum of 14 h of light.	16 hours of light
Diet: A commercial diet for game birds.	A game bird ration formulated to Wildlife International Ltd. specifications

Comments:

C. Test Design:

Guideline Criteria	Reported Information
Range finding test?	Not Reported
Definitive Test Nominal concentrations: Four minimum, 5 or 6 strongly recommended, in a geometric scale, unless $LC_{50} > 5000$ ppm.	Yes, 562, 1000, 1780, 3160, and 5620 ppm
Controls: Control group tested with diet containing the maximum amount of vehicle used in treated diets?	Yes
Number of birds per group: 10 (strongly recommended)	10 birds/dose level; 30 control organisms
Vehicle: Distilled water, corn oil, propylene glycol, 1% carboxymethylcellulose, or gum arabic.	corn oil
Vehicle amount (% of diet by weight): Not more than 2%	2%
Test durations: 5 days with treated feed and at least 3 days observation with "clean" feed.	Yes
No mortality during last 72 hr of observations?	No

Comments:

10. REPORTED RESULTS:

Guideline Criteria	Reported Information
Body weights measured at beginning and end?	Yes, day 0, 5, and 8

Guideline Criteria	Reported Information
Estimated consumption per pen reported for pretreatment, treatment, and observation periods?	Yes, day 0-5 and 6-8
Control Mortality: Not more than 10%	0
Raw data included?	Yes
Signs of toxicity (if any) were described?	No

Mortality:

Conc. (ppm)		Number Dead								
Nominal	Mean Measured	Day of Study								Total
		1	2	3	4	5	6	7	8	
0		0	0	0	0	0	0	0	0	0

Other Significant Results: N/A

Statistical Results:

Statistical Method: No statistics were performed due to lack of mortality.

LC₅₀: >5620 ppm

95% C.I.: N/A

NOEL: 5620 ppm

Probit Slope: N/A

Comments:

11. Verification of Statistical Results:

Statistical Method: C. E. Stephan's, however, no statistics were performed due to lack of mortality

LC₅₀: >5620 ppm 95% C.I.: _____ - _____ ppm

NOEL: 5620 ppm Probit Slope: _____

12. Guideline Deviations:

1. N/A

2.

13. COMPLETION OF ONE-LINER FOR STUDY: Yes, January 30, 1995

DATA EVALUATION RECORD
WATERFOWL DIETARY LC₅₀ TEST
GUIDELINE 71-2 (B)

1. CHEMICAL: Erioglaucine, Tartrazine

Shaughnessey #: 110301, 110302

2. TEST MATERIAL: Aquashade: Acid Blue 9 - 23.63%; Acid Yellow 23 - 2.39%; Inerts - 73.98%; 13.9% Azure Blue Dye.

3. CITATION: Campbell, S.M. and Beavers, J. B.
Laboratory: Wildlife International LTD
Sponsor: Applied Biochemists, Inc.
Laboratory Report ID: 196-102
Any Other Study ID: MRID No. 435034-04

4. REVIEWED BY:

Curtis E. Laird
Fishery Biologist
EEB/EFED
US EPA

Signature:

Curtis E. Laird

Date:

4-26-95

5. APPROVED BY:

Norman J. Cook
Head, Section #2 -
EEB/EFED
US EPA

Signature:

Norman J. Cook

Date:

04-27-95

6. CONCLUSION: This study indicates Aquashade is practically nontoxic to mallard duck with an LC₅₀ greater than 5620 ppm, as Aquashade. This study does fulfill the guideline requirements in support of reregistration for a formulated product.
7. ADEQUACY OF THE STUDY: This study is classified as core for a formulated product.
8. RATIONAL FOR CLASSIFICATION: N/A

9. MATERIALS AND METHODS:

A. Test Organisms: Mallard Duck (*Anas platyrhynchos*)

Guideline Criteria	Reported Information
Species: A wild waterfowl species, preferably the mallard (<i>Anas platyrhynchos</i>).	Mallard Duck
Age at beginning of test: 5-10 days old (preferably 5).	10 days old
Supplier	Whistling Wings, 113 Washington Street, Hanover, Illinois 61041
Acclimation period	9 days

Comments: N/A

B. Test System:

Guideline Criteria	Reported Information
Pen size: about 70 x 100 x 24 cm	72 X 90 X 23.5 cm
Brooder temperature: about 35°C (95°F)	30°C ± 1.0°C
Room temperature: 22-27°C (71-81°F)	27°C ± 0.9°C
Relative humidity: 30-80%	73% ± 12%
Adequate ventilation?	Yes
Photoperiod Minimum of 14 h of light.	16 hours light and 8 hours darkness
Diet: A commercial waterfowl feed.	A game bird ration formulated to Wildlife International specifications.

Comments:

C. Test Design:

Guideline Criteria	Reported Information
Range finding test?	Not reported
Definitive Test Nominal concentrations: Four minimum, 5 or 6 strongly recommended, in a geometric scale, unless $LC_{50} > 5000$ ppm.	nominal concentrations, 5 dose levels: 562, 1000, 1780, 3160, 5620 ppm
Controls: Control group tested with diet containing the maximum amount of vehicle used in treated diets?	Yes
Number of birds per group: 10 (strongly recommended)	10/level; 30 control organisms
Vehicle: Distilled water, corn oil, propylene glycol, 1% carboxymethylcellulose, or gum arabic.	corn oil
Vehicle amount (% of diet by weight): Not more than 2%.	2%
Test durations: 5 days with treated feed and at least 3 days observation with "clean" feed.	Yes
No mortality during last 72 hr of observations?	No

Comments:

- **REPORTED RESULTS:** The study author found the 8-dietary LC_{50} to be greater than 5620 ppm

Guideline Criteria	Reported Information
Body weights measured at beginning and end?	Yes

Guideline Criteria	Reported Information
Estimated consumption per pen reported for pretreatment, treatment, and observation periods?	Yes
Control Mortality: Not more than 10%	0%
Raw data included?	Yes
Signs of toxicity (if any) were described?	Yes, blue droppings were observed at the 1780, 3160, and 5620 dosage levels

Mortality:

Conc. (ppm)		Number Dead								
Nominal	Mean Measured	Day of Study								Total
		1	2	3	4	5	6	7	8	
0		0	0	0	0	0	0	0	0	0

Other Significant Results: N/A

Statistical Results:

Statistical Method:

LC₅₀: >5620 ppm

95% C.I.: N/A (No mortality)

NOEL: 5620 ppm

Probit Slope: N/A

Comments:

11. Verification of Statistical Results:

Statistical Method: No statistics were performed due to lack of mortality

LC₅₀: >5620 ppm

95% C.I.: N/A

NOEL: 5620

Probit Slope: N/A

12. GUIDELINE DEVIATIONS:

1. N/A

2.

13. COMPLETION OF ONE-LINER FOR STUDY: Yes January 30, 1995

File Copy
Erioglaucine

DP Barcode : D198333
PC Code No : 110301
EEB Out : 08/31/94

To: Kathryn Davis
Product Manager 52
Special Review and Reregistration Division (7508W)

From: Anthony F. Maciorowski, Chief
Ecological Effects Branch/EFED (7507C)

Attached, please find the EEB review of...

Reg./File # : 110301-033068
Chemical Name : Erioglaucine
Type Product : Herbicide
Product Name : Aquashade
Company Name : Aquashade Inc.
Purpose : Submission of further clarifying information
relative to mallard duck acute oral LD₅₀
study in support of Case No. 4010.
Action Code : 606 Date Due : 04/13/94
Reviewer : K. Valente Date In : 01/14/94

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)	41955		72-2(A)			72-7(A)		
71-1(B)			72-2(B)			72-7(B)		
71-2(A)			72-3(A)			122-1(A)		
71-2(B)			72-3(B)			122-1(B)		
71-3			72-3(C)			122-2		
71-4(A)			72-3(D)			123-1(A)		
71-4(B)			72-3(E)			123-1(B)		
71-5(A)			72-3(F)			123-2		
71-5(B)			72-4(A)			124-1		
72-1(A)			72-4(B)			124-2		
72-1(B)			72-5			141-1		
72-1(C)			72-6			141-2		
72-1(D)						141-5		

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

DP BARCODE: D198333

REREG CASE # 4010

CASE: 816361
SUBMISSION: S456453

DATA PACKAGE RECORD
BEAN SHEET

DATE: 01/13/94
Page 1 of 1

* * * CASE/SUBMISSION INFORMATION * * *

CASE TYPE: REREGISTRATION ACTION: 606 GENERIC DATA
CHEMICALS: 110301 Erioglaucine

100.00 %

ID#: 110301-033068

COMPANY: 033068 AQUASHADE INC

PRODUCT MANAGER: 52 KATHRYN DAVIS

703-308-8156 ROOM: CS1 3F3

PM TEAM REVIEWER: BONNIE ADLER

703-308-8523 ROOM: CS1 4N4

RECEIVED DATE: 05/29/80 DUE OUT DATE: 08/27/80

* * * DATA PACKAGE INFORMATION * * *

DP BARCODE: 198333 EXPEDITE: N DATE SENT: 01/13/94 DATE RET.: / /

CHEMICAL: 110301 Erioglaucine

DP TYPE: 999 Miscellaneous Data Package

CSF: N

LABEL: N

ASSIGNED TO DATE IN DATE OUT

ADMIN DUE DATE: 04/13/94

DIV : EFED

01/14/94

/ /

NEGOT DATE: / /

BRAN: EEB

01/14/94

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PROJ DATE: / /

SECT:

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/ /

REVR :

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08/31/94

CONTR:

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/ /

* * * DATA REVIEW INSTRUCTIONS * * *

Please review the following eco tox study for the chemical
aquashade;

GDLN 71-1b Acute Oral Toxicity in Mallards MRID 41995.

* * * DATA PACKAGE EVALUATION * * *

No evaluation is written for this data package

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

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL
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17