

US EPA ARCHIVE DOCUMENT



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

JUN 1 1993

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: RED Review for Bromine (Case 4015)

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

TO: Betsy Grim  
Science Analysis and Coordination Staff  
Environmental Fate and Effects Division (H7507C)

EEB completed the Phase IV review for bromine (008701) on April 21, 1993. Following the Phase IV review, EEB determined that bromine is a candidate for direct development into a RED, without further EEB review. All uses of this chemical are indoor (food, nonfood, medical, and residential). Bromine is used in insecticides, acaricides, and antimicrobials.

Since all registered uses of bromine are indoor uses, the reduced data set applies: one avian acute oral, one avian dietary, one fish acute, and one aquatic invertebrate acute.

Aquatic ecotoxicity data are available for this chemical. The studies show that bromine chloride, measured as bromine, is highly toxic to freshwater fish and aquatic invertebrates. No avian toxicity data are available for bromine. The registrants have requested waivers for the avian studies; EEB concurs with the waiver requests. Bromine is a highly volatile, corrosive liquid, and standard avian tests would not provide useful toxicity data.

In view of the above, there are no outstanding ecotoxicity data requirements for bromine. Avian requirements are waived; aquatic data will be used for labelling purposes. The status of the data requirements is outlined in the attached data table.

Based on the aquatic toxicity data, the following statement is required on the labels of bromine products:

"This pesticide is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes,



2024127



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

streams, ponds, estuaries, oceans, or public water unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA."

Any questions or comments on this memo should be referred to Allen Vaughan at 305-6464.

Date: 04/07/93  
 Case No: 4015  
 Chemical No: 008701

PHASE IV  
 DATA REQUIREMENTS FOR  
 ECOLOGICAL EFFECTS BRANCH

Data Requirements	Composition <sup>1</sup>	Use Pattern <sup>2</sup>	Does EPA Have Data To Satisfy This Requirement? (Yes, No)	Bibliographic Citation	Must Additional Data Be Submitted under FIFRA3(c)(2)(B)?
<b>6 Basic Studies in Bold</b>					
<b>71-1(a) Acute Avian Oral, Quail/Duck</b>	(TGAI)	L,M,N,O	No		No <sup>3</sup>
<b>71-1(b) Acute Avian Oral, Quail/Duck</b>	(TEP)				
<b>71-2(a) Acute Avian Diet, Quail</b>	(TGAI)	L,M,N,O	No		No <sup>3</sup>
<b>71-2(b) Acute Avian Diet, Duck</b>	(TGAI)				
<b>71-3 Wild Mammal Toxicity</b>	(TGAI)				
<b>71-4(a) Avian Reproduction Quail</b>	(TGAI)				
<b>71-4(b) Avian Reproduction Duck</b>	(TGAI)				
<b>71-5(a) Simulated Terrestrial Field Study</b>	(TEP)				
<b>71-5(b) Actual Terrestrial Field Study</b>	(TEP)				
<b>72-1(a) Acute Fish Toxicity Bluegill</b>	(TGAI)	L,M,N,O	Yes	40669903	No
<b>72-1(b) Acute Fish Toxicity Bluegill</b>	(TEP)				
<b>72-1(c) Acute Fish Toxicity Rainbow Trout</b>	(TGAI)	L,M,N,O	Yes	40669902	No
<b>72-1(d) Acute Fish Toxicity Rainbow Trout</b>	(TEP)				
<b>72-2(a) Acute Aquatic Invertebrate Toxicity</b>	(TGAI)	L,M,N,O	Yes	40669904	No
<b>72-2(b) Acute Aquatic Invertebrate Toxicity</b>	(TEP)				
<b>72-3(a) Acute Estu/Mari Tox Fish</b>	(TGAI)				
<b>72-3(b) Acute Estu/Mari Tox Mollusk</b>	(TGAI)				
<b>72-3(c) Acute Estu.Mari Tox Shrimp</b>	(TGAI)				

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<sup>3</sup> In Bibliographic Citation column indicates study may be upgradeable

Date: 04/07/93  
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PHASE IV  
 DATA REQUIREMENTS FOR  
 ECOLOGICAL EFFECTS BRANCH

Data Requirements	Composition <sup>1</sup>	Use Pattern <sup>2</sup>	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)				
72-3(e) Acute Estu/Mari Tox Mollusk	(TEP)				
72-3(f) Acute Estu/Mari Tox Shrimp	(TEP)				
72-4(a) Early Life-Stage Fish	(TGAI)				
72-4(b) Life-Cycle Aquatic Invertebrate	(TGAI)				
72-5 Life-Cycle Fish	(TGAI)				
72-6 Aquatic Org. Accumulation	(TGAI)				
72-7(a) Simulated Aquatic Field Study	(TEP)				
72-7(b) Actual Aquatic Field Study	(TEP)				
122-1(a) Seed Germ./Seedling Emerg.	(TGAI)				
122-1(b) Vegetative Vigor	(TGAI)				
122-2 Aquatic Plant Growth	(TGAI)				
123-1(a) Seed Germ./Seedling Emerg.	(TGAI)				
123-1(b) Vegetative Vigor	(TGAI)				
123-2 Aquatic Plant Growth	(TGAI)				
124-1 Terrestrial Field Study	(TEP)				
124-2 Aquatic Field Study	(TEP)				
141-1 Honey Bee Acute Contact	(TGAI)				
141-2 Honey Bee Residue on Foliage	(TEP)				
141-5 Field Test for Pollinators	(TEP)				

*Handwritten mark resembling a stylized 'S' or '5'.*

<sup>1</sup> In Bibliographic Citation column indicates study may be upgradeable

DP Barcode : D191175  
 PC Code No : 008701  
 EEB Out : 06.01.93

To: Bruce Sidwell  
 Product Manager 53  
 Special Review and Reregistration Division (H7508W)

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

Attached, please find the EEB review of...

Reg./File # : 008701  
 Chemical Name : Bromine  
 Type Product : Microbiocide  
 Product Name : Bromine Products  
 Company Name : Various Registrants  
 Purpose : SRRD request for development of RED for Case No. 4015.

Action Code : 604 Date Due : 06/01/93  
 Reviewer : A. Vaughan Date In : 05/12/93

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)			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

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→ 8084

DP BARCODE: D191175

REREG CASE # 4015

CASE: 818561  
SUBMISSION: S440547

DATA PACKAGE RECORD  
BEAN SHEET

DATE: 05/11/93  
Page 1 of 1

\* \* \* CASE/SUBMISSION INFORMATION \* \* \*

CASE TYPE: REREGISTRATION ACTION: 604 PHASE 4 RESPONSE SUBMIS 100.00 %  
CHEMICALS: 008701 Bromine

ID#: 008701

COMPANY:

PRODUCT MANAGER: 53 BRUCE SIDWELL 703-308-8078 ROOM: CS1 3E3  
PM TEAM REVIEWER: MARK WILHITE 703-308-8586 ROOM: CS1 3A4  
RECEIVED DATE: 05/10/93 DUE OUT DATE: 09/07/93

\* \* \* DATA PACKAGE INFORMATION \* \* \*

DP BARCODE: 191175 EXPEDITE: N DATE SENT: 05/11/93 DATE RET.: / /  
CHEMICAL: 008701 Bromine  
DP TYPE: 102 Phase V Review  
ADMIN DUE DATE: 06/01/93 CSF: N LABEL: N

ASSIGNED TO	DATE IN	DATE OUT
DIV : EFED	05/11/93	/ /
BRAN: EEB	5/12/93	06/01/93
SECT:	/ /	/ /
REVR :	/ /	/ /
CONTR:	/ /	/ /

\* \* \* DATA REVIEW INSTRUCTIONS \* \* \*

Please do a RED review for this chemical.

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

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL
191176	EFGB	05/11/93	06/01/93	Y	N	N
191177	CCB	05/11/93	06/01/93	Y	N	N

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