

US EPA ARCHIVE DOCUMENT

108501

file

AUG 1 1989

DANIEL D. RIEDER

GENERAL CATEGORY: _____

SPECIFIC CATEGORY: _____

LIST A PROJECT
INVENTORY SUMMARY SHEET

1. CHEMICAL CASE NAME: *Pendimethalin*
2. CHEMICAL CASE NO.: *0187*
3. PM *25*
4. CAS NOS.: *40487-42-1*
5. CASWELL NO.: *454BB*
6. SHAUGHNESSY CODE(S): *108501*
7. DATE OF ISSUANCE OF REGISTRATION STANDARD:
8. TYPE OF PESTICIDE: *Herbicide*
9. USE PATTERN: *Terrestrial Food Crop, Terrestrial Feed Crop,
? Aquatic Food Crop?, Terrestrial Nonfood Crop.*
10. SUMMARY OF DATA REQUIREMENTS AND STUDIES

BEST AVAILABLE COPY

DISCIPLINE	STUDIES REQ.	STUDIES REC'D.	STUDIES REV'D.	STUDIES NOT REV'D.	STUDIES OUTSTAND. REV'D.	NEW REQ.
TOX.	-----	-----	-----	-----	-----	-----
ENVIRON. FATE	-----	-----	-----	-----	-----	-----
ECO.EFF.	<u>3</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>3</u>
PROD.CHEM.	-----	-----	-----	-----	-----	-----
RES.CHEM.	-----	-----	-----	-----	-----	-----
NDEB.	-----	-----	-----	-----	-----	-----
TOTALS	-----	-----	-----	-----	-----	-----

note: 35% product packets unobtainable - 19/54; used CLF copy of label for 11 out of the 19.

LIST A PROJECT SUMMARY SHEET

C. ECOLOGICAL EFFECTS:

1. STUDIES REQUIRED:

- 72-2 Aquatic Invertebrate w/ TEP
- 72-6 Aquatic Organism Accumulation Test
- 72-7 Aquatic Field study (rice)

2. NEW REQUIREMENTS:

- 123-1 Seed Germination / seedling emergence
- 123-1 Vegetative Vigor
- 123-2 Aquatic Plant growth

3. STUDIES TO BE REVIEWED:

- 72-6 Aquatic Organism Accumulation Acc# 261366

4. STUDIES REVIEWED:

- 72-2 Aqu. Inv. Acute with TEP Acc# 260404 6-24-86 core

5. RECOMMENDATION:

Cancel rice use because of failure to submit field study

DCI for plant data

TABLE A
 GENERIC DATA REQUIREMENTS FOR PENDIMETHALIN

Revised 8-1-89
 with List A project

Data Requirement	1/ Composition	2/ Use Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?
<u>AVIAN AND MAMMALIAN TESTING</u>					
71-1 - Acute Avian Oral Toxicity	TGAI	A, B, C	Yes	00059739	No
71-2 - Acute Avian Dietary Toxicity	TGAI	A, B	Yes	00026674	No
a) Upland gamebird	TGAI	A, B	Yes	00026675	No
b) Waterfowl	TGAI	A, B	8/		
71-3 - Wild Mammal Toxicity	TGAI	A, B	8/		
71-4 - Avian Reproduction	TGAI	A, B	8/		
71-5 - Simulated and Actual Field Testing - Mammals and Birds	TEP	A, B	8/		
<u>AQUATIC ORGANISM TESTING</u>					
72-1 - Acute Freshwater Fish Toxicity	TGAI	A, B, C	Yes	00106764	No
a) Warmwater	TEP	C	Yes	00037927 00131773	No
b) Coldwater	TGAI	A, B, C	Yes	00106764	No
	TEP	C	Yes	00037927	No

TABLE A
GENERIC DATA REQUIREMENTS FOR PENDIMETHALIN

Data Requirement	Composition	1/ Use 2/ Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?
<u>§158.145 Wildlife and Aquatic Organisms (continued)</u>					
72-2 - Acute Freshwater Invertebrate Toxicity	TGAI	A, B, C	Yes	00071123 00059738	No
	TEP	C	No Yes Acc # 260404		No Yes
72-3 - Acute Toxicity Estuarine and Marine Organisms	TGAI	A, C	Yes	00131772	No
a) Oyster	TEP	A, C	Yes	00131772	No 4/
b) Shrimp	TGAI	A, C	Yes	00131775	No
	TEP	A, C	Yes	00131775	No 4/
c) Marine Fish	TGAI	A, C	Yes	00131774	No
	TEP	A, C	Yes	00131774	No 4/
72-4 - Aquatic Invertebrate Life-Cycle	TGAI	A, C	Yes	00100504	No 4/
72-5 - Fish - Life-Cycle	TGAI	A, C	Yes	00037940	No 4/
72-6 - Aquatic Organism Accumulation	TGAI	A, C	No	-	Yes 4/
72-7 - Aquatic Field Study	TEP	C 5/	No	-	Yes 3/

TABLE A
 GENERIC DATA REQUIREMENTS FOR ~~_____~~ PENDING TALIN

Data Requirements	1/ Composition	Use 2/ Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?
<u>\$158.150 Plant Protection</u>					
121-1 - TARGET AREA PHYTOTOXICITY	EP	-	NO	-	NO ^{4/}
<u>NONTARGET AREA PHYTOTOXICITY</u>					
<u>TIER I</u>					
122-1 - Seed Germination/ Seedling Emergence	TGAI	-	NO	-	NO ^{5/}
122-1 - Vegetative Vigor	TGAI	-	NO	-	NO ^{5/}
122-2 - Aquatic Plant Growth	TGAI	-	NO	-	NO ^{5/}
<u>TIER II</u>					
123-1 - Seed Germination/ Seedling Emergence	TGAI	-	NO	-	YES
123-1 - Vegetative Vigor	TGAI	-	NO	-	YES
123-2 - Aquatic Plant Growth	TGAI	-	NO	-	YES
<u>TIER III</u>					
124-1 - Terrestrial Field	TEP	-	NO	-	RES ^{6/}
124-2 - Aquatic Field	TEP	-	NO	-	RES ^{6/}

^{4/} Not currently a requirement

^{5/} Tier I phytotoxicity testing for herbicide is waived; Tier II tests are required instead.

^{6/} Field Testing reserved pending receipt and review of Tier II tests.

TABLE A
 GENERIC DATA REQUIREMENTS FOR PENDIMETHALIN

28(31)

Data Requirement	Composition		Use 2/ Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)		Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?
	1/ Composition			Yes	No		
<u>§158.155 Nontarget Insect</u>							
<u>NONTARGET INSECT TESTING - POLLINATORS:</u>							
141-1 - Honey bee acute contact toxicity	TGAI	A,B		Yes		00099890	No
141-2 - Honey bee - toxicity of residues on foliage	TEP	A,B		9/			
141-4 - Honey bee subacute feeding study	[Reserved]	6/					
141-5 - Field testing for pollinators	TEP	A,B		9/			

29(32)

TABLE A
 GENERIC DATA REQUIREMENTS FOR PENDIMETHALIN

Data Requirement	Composition	Use 2/ Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?
<u>§158.155 Nontarget Insect (continued)</u>					
<u>NONTARGET INSECT TESTING - AQUATIC INSECTS:</u>					
142-1 - Acute toxicity to aquatic insects	(Reserved) 7/				
142-2 - Aquatic insect life-cycle study	(Reserved) 7/				
142-3 - Simulated or actual field testing for aquatic insects	(Reserved) 7/				
143-1 - <u>NONTARGET INSECT TESTING - PREDATORS AND PARASITES</u> thru	(Reserved) 7/				
143-3					

TABLE A
GENERIC DATA REQUIREMENTS FOR PENDIMETHALIN

30(33)

§158.145 Wildlife and Aquatic Organisms
(continued)

- 1/ Composition: TGA1 = Technical grade of the active ingredient; PAI = pure active ingredient; TEP = Typical end-use product;
- 2/ The use patterns are coded as follows: A=Terrestrial, Food Crop; B=Terrestrial, Non-Food Crop; C=Aquatic, Food Crop; D=Aquatic, Non-Food; E=Greenhouse, Food Crop; F=Greenhouse, Non-Food; G=Forestry; H=Domestic Outdoor; I=Indoor.
- 3/ This study is required to support the rice use, and must be submitted by October 30, 1985.
- 4/ Requirement pending receipt and review of environmental fate data in conjunction with such uses as corn, soybeans and cotton.
- 5/ This study will monitor residues in aquatic sites next to rice fields, and must be submitted by April 30, 1987.
- 6/ Reserved pending development of test methodology.
- 7/ Reserved pending Agencies' decision as to whether data requirement should be established.
- 8/ The low avian and mammalian toxicity data for pendimethalin indicate that these data are not required.
- 9/ No additional data required because the data shows pendimethalin to be non-toxic to bees.

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EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN*

TABLE OF CONTENTS

<u>Site Name</u>	<u>Page</u>
<i>TERRESTRIAL FEED CROP</i>	
TERRESTRIAL FOOD CROP (Agricultural Crops)	
TERRESTRIAL NONFOOD CROP (Agricultural Crops) (Ornamental Plants and Forest Trees) (Noncrop, Wide Area, and General Indoor/Outdoor Treatments)	
AQUATIC FOOD CROP (Aquatic Sites)	
Alfalfa (seed crop)	
Beans (dry, lima, snap)	
Christmas Tree Plantings	
Corn (field)	
Corn (sweet)	
Cotton	
Fencerows	
Fruit Trees (including apple, apricot, cherry, citrus, grape, nectarine, peach, pear, plum, and prune) (non- bearing)	
Highway Rights-of-Way (guardrails, delineators, signposts)	
Industrial Sites (including petroleum tank farms, pumping stations, and storage areas)	
Nut Crops (including almond, English walnut, and pistachio) (non-bearing)	
Ornamental Plants (including achillea, agapanthus, ajuga, ash, asparagus fern, butterfly iris, California fur palm, ceanothus, cordyline, cortaderia, daylilies, douglas-fir, dwarf lily turf (gc), euonymus, flowering pear, forsythia, franklinia, hederā, hemlock, holly, Japanese snakebeard (gc), jelly palms, junipers, lagerstromia, ligustrum, lin- den, liriope, lobelia, magnolia, malus, maple, moraea, nightshade, oak, ophiopogon, pachysandra, pampasgrass, penstemon, photinia, rhododendron, spirea, stokesia, syca- more, syringa, white lily turf (gc), windmill palm, and yucca) (container, field)	
Ornamental Lawns (except dichondra and bentgrass lawns)	
Ornamental Turf (including bahiagrass, bentgrass, bermuda- grass (non-winter overseeded), centipedegrass, fine fes- cue, Kentucky bluegrass, <u>Poa annua</u> (except putting greens and tees), perennial ryegrass, St. Augustinegrass, tall fescue, and zoysiagrass)	
Peanuts	
Potato	
Railroad Rights-of-Way	
Rice (dry-seeded)	
Sorghum (grain crop)	
Soybeans	

N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine

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(List A Inventory)

PENDIMETHALIN

TABLE OF CONTENTS

<u>Site Name</u>	<u>Page</u>
Sunflower	
Tobacco (burley and flue-cured)	
Tobacco (transplants)	
Uncultivated Non-Agricultural Areas	
Utility Rights-of-Way	
Vineyards (non-bearing)	

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN*

TYPE PESTICIDE: Herbicide

Appendix B Report

Listing by Site/Use Pattern Statement/Form/Registration Number

Alfalfa (seed crop)

Dormant application.
(EC)
WA880026

Beans (dry, lima, snap)

Preplant incorporation.
(EC)
000241-00243

Christmas Tree Plantings

Broadcast.
(EC)
000241-00305

Corn (field)

Early postemergence.
(DF)
000241-00268

(EC)
000241-00243

(SC/L)
000241-00301

Postemergence.
(EC)
000241-00243
C0790014 KS790009 NE790007

(SC/L)
000241-00301

Preemergence.
(DF)
000241-00268

(EC)
000241-00243

N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine

Issued: 5-02-89

I-108501-1

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EPA Index to Pesticide Chemicals
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PENDIMETHALIN

Appendix B Report

Listing by Site/Use Pattern Statement/Form/Registration Number (continued)

Corn (field) (continued)

Preemergence (continued)

(SC/L)
000241-00301

Corn (sweet)

Early postemergence.

(EC)
000241-00243

(SC/L)
000241-00301

Preemergence.

(EC)
000241-00243

(SC/L)
000241-00301

Cotton

At planting.

(EC)
000241-00243

Preemergence.

(DF)
000241-00268

(EC)
000241-00243

Preplant incorporated.

(DF)
000241-00268

(EC)
000241-00243

Fencerows

Broadcast.

(EC)
000241-00305

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Appendix B Report

Listing by Site/Use Pattern Statement/Form/Registration Number (continued)

Fruit Trees (including apple, apricot, cherry, citrus, grape, nectarine,
peach, pear, plum, and prune) (non-bearing)

Soil treatment.
(EC)
000241-00243

Highway Rights-of-Way (guardrails, delineators, signposts)

Broadcast.
(EC)
000241-00305

Industrial Sites (including petroleum tank farms, pumping stations, and
storage areas)

Broadcast.
(EC)
000241-00305

Nut Crops (including almond, English walnut, and pistachio) (non-bearing)

Soil treatment.
(EC)
000241-00243

Ornamental Lawns (except dichondra and bentgrass lawns)

Broadcast.
(G)
000538-00189 000538-00192 000538-00219 000538-00237

(WP)
000241-00284 010404-00051

(DF)
010404-00052

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Appendix B Report

Listing by Site/Use Pattern Statement/Form/Registration Number (continued)

Ornamental Plants (including achillea, agapanthus, ajuga, ash, asparagus fern, butterfly iris, California fur palm, ceanothus, cordyline, cortaderia, daylilies, douglas-fir, dwarf lily turf (gc), euonymus, flowering pear, forsythia, franklinia, hederia, hemlock, holly, Japanese snakebeard (gc), jelly palms, junipers, lagerstromia, ligustrum, linden, liriope, lobelia, magnolia, malus, maple, moraea, nightshade, oak, ophiopogon, pachysandra, pampasgrass, penstemon, photinia, rhododendron, spirea, stokesia, sycamore, syringa, white lily turf (gc), windmill palm, and yucca) (container, field)

At planting.

(G)

000538-00188

Broadcast.

(EC)

000241-00305

Posttransplant.

(G)

000538-00172 000538-00188

CT820001 FL820023 LA820004 OR820004 TN820002

Preemergence.

(G)

000538-00172

CT820001 FL820023 LA820004 OR820004 TN820002

Ornamental Turf (including bahiagrass, bentgrass, bermudagrass (non-winter overseeded), centipedegrass, fine fescue, Kentucky bluegrass, Poa annua (except putting greens and tees), perennial ryegrass, St. Augustinegrass, tall fescue, and zoysiagrass)

Broadcast.

(G)

000538-00190 000538-00193 000538-00196 000538-00206

000538-00207 000538-00213 000538-00214 000538-00227

(WP)

000241-00284 010404-00051

(DF)

010404-00052

Peanuts

Preplant incorporated.

(EC)

000241-00243

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Appendix B Report

Listing by Site/Use Pattern Statement/Form/Registration Number (continued)

Potato

Postemergence.

(EC)

ID830016 OR830023 WA830020

Preemergence.

(EC)

000241-00243

ME810001

Railroad Rights-of-Way

Broadcast.

(EC)

000241-00305

Rice (dry-seeded)

Early postemergence.

(EC)

000241-00243 038167-00010

Postemergence.

(EC)

AR810025

Sorghum (grain crop)

Early postemergence.

(EC)

000241-00243

Postemergence.

(EC)

000241-00243

(SC/L)

000241-00301

Soybeans

At planting.

(EC)

000241-00243

Preemergence.

(DF)

000241-00268

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Appendix B Report

Listing by Site/Use Pattern Statement/Form/Registration Number (continued)

Soybeans (continued)

Preemergence (continued)

(EC)
000241-00243 000241-00315
NE850007

Preplant.

(EC)
000241-00315

Preplant incorporated.

(DF)
000241-00268

(EC)
000241-00243 000241-00315
NE850007

Sunflower

Preemergence.

(EC)
ND850003

Preplant.

(EC)
ND850003

Preplant incorporated.

(EC)
000241-00243

Tobacco (burley and flue-cured)

Postemergence.

(EC)
000241-00247

Tobacco (transplants)

Layby application.

(EC)
000241-00243

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Appendix B Report

Listing by Site/Use Pattern Statement/Form/Registration Number (continued)

Tobacco (transplants) (continued)

Preplant incorporated.
(EC)
000241-00243
KY800002 MD800011

Uncultivated Non-Agricultural Areas

Broadcast.
(EC)
000241-00305

Utility Rights-of-Way

Broadcast.
(EC)
000241-00305

Vineyards (non-bearing)

Soil treatment.
(EC)
000241-00243

Dormant application.
(EC)
000241-00243

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Listing of Registered Pesticide Products by Formulation

90% technical chemical

pendimethalin (108501)
000241-00245#
#fiche/label copy

5.8 lb/gal formulation intermediate

pendimethalin (108501)
000241-00281#
#fiche/label copy

86.8% formulation intermediate

pendimethalin (108501)
000241-00291#
#fiche/label copy

0.5% granular

pendimethalin (108501)
000538-00213# 000538-00214
#fiche/label copy

0.57% granular

pendimethalin (108501)
000538-00206

0.68% granular

pendimethalin (108501) plus chlorpyrifos (059101)
000538-00226*
*jacket currently unavailable for review

1% granular

pendimethalin (108501) plus oxyfluorfen (111601)
000538-00172

(000538-00172) CT820001 FL820023 LA820004 OR820004
 TN820002

1.03% granular

pendimethalin (108501)
000538-00189#
#fiche/label copy

1.15% granular

pendimethalin (108501)
000538-00196 000538-00202*
*jacket currently unavailable for review

1.24% granular

pendimethalin (108501)
000538-00190#
#fiche/label copy

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Listing of Registered Pesticide Products by Formulation (continued)

1.71% granular

pendimethalin (108501)
000538-00192 000538-00193

1.79% granular

pendimethalin (108501)
000538-00207# 000538-00219 000538-00237

2.68% granular

pendimethalin (108501)
000538-00188

4.13% granular

pendimethalin (108501)
000538-00227

35% wettable powder

pendimethalin (108501)
000241-00302*
*jacket currently unavailable for review

50% wettable powder

pendimethalin (108501)
000241-00284# 010404-00051
#fiche/label copy

60% dry flowable

pendimethalin (108501)
000241-00268# 010404-00052
#fiche/label copy

1 lb/gal emulsifiable concentrate

pendimethalin (108501) plus 3',4'-dichloropropionanilide (028201)
038167-00010

2.8 lb/gal emulsifiable concentrate

pendimethalin (108501) plus imazethapyr (128982)
000241-00315

3 lb/gal emulsifiable concentrate

pendimethalin (108501) plus xylene (086802)
000241-00247#
#fiche/label copy

4 lb/gal emulsifiable concentrate

pendimethalin (108501)
000241-00243 000241-00305

(000241-00243)	AR810025	AZ820008*	C0790014	ID830016
	KS790009	KY800002	MD800011	ME810001
	ND850003	NE790007	NE850007	OR830023

EPA Index to Pesticide Chemicals
(List A Inventory)

PENDIMETHALIN

Listing of Registered Pesticide Products by Formulation (continued)

4 lb/gal emulsifiable concentrate (continued)

PA800011* TX810023* WA830020 WA880026

*jacket currently unavailable for review

21.85% emulsifiable concentrate

pendimethalin (108501) plus dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl)-3-quinolinecarboxylic acid (128848)

000241-00297*

*jacket currently unavailable for review

32% soluble concentrate/liquid

pendimethalin (108501) plus atrazine (080803)

000241-00300*

*jacket currently unavailable for review

40% soluble concentrate/liquid

pendimethalin (108501)

000241-00301

60% soluble concentrate/liquid

pendimethalin (108501)

000538-00195*

*jacket currently unavailable for review