Shaughnessy Number: 109901

Date Out of EFGWB: SEP 19 1989

TO: D. Stubbs/L. Pemberton
Product Manager 41
Registration Division (H7505C)

FROM: W. Martin Williams, Hydrologist
Ground-Water Technology Section
Environmental Fate & Ground-Water Branch/EFED (H7507C)

THRU: Henry Jacoby, Chief (Acting)
Environmental Fate & Ground-Water Branch/EFED (H7507C)

Attached, please find the EFGWB review of:

Reg./File #: 89-CA-16

Chemical Name: Triadimefon

Type Product: Fungicide

Company Name: Mobay Corporation

Purpose: Evaluate ground-water concerns for crisis exemption under FIFRA Section 18 for use on tomatoes in California.

Date Received: 3/16/89

Date Completed: 9/15/89

Monitoring study requested: ____

Monitoring study voluntarily: ___

ACTION CODE: 510

EFGWB #(s): 90442

Total Review Time: 1 day

Deferrals To: _____ Biological Effects Branch

_____ Science Integration & Policy Staff, EFED

_____ Non-Dietary Exposure Branch, HED

_____ Dietary Exposure Branch, HED

_____ Toxicology Branch, HED

EPA

Data Re[illegible]w Record

Confidential Business [illegible]mation - Does not contain National Security [illegible]mation (E.O. 12065)

1. Product Name	Chemical Name
Bayleton	triadimefon

2. Identifying Number	3. Record Number	4. Action Code	5. MRID/ Accession Number	6. Study Guideline or Narrative
89-CA-16	241435	510		

7. Reference No.	8. Date Rec'd (EPA)	9. Prod/Review Mgr/DCI	10. PM/RM Team No.	11. Date to HED/ EFED/RD/BEAD	12. Proj Return Date	13. Date Returned to RD/BEAD
	3/6/89	Stubbs / Pemberton	41	3/[illegible]	[illegible]	[illegible]

Instructions

Please comment on groundwater [illegible]

This Section Applies to Review of [illegible]

14. Check Applicable Box

- [ ] Adverse 6(a)(2) Data (405)
- [ ] Special Review Data (870)

16. Have any of the above studies (in whole or in part) [illegible]

- [ ] Yes (Please [illegible])

18.	To	Type of Review
HED		Science Analysis & C[illegible]
		Toxicology/HFA
		Toxicology/[illegible]
		Dietary [illegible]
		Nondi[illegible]
EFED		Ecolo[illegible]
	✓	[illegible]
RD		[illegible]
		Fungicide-Herbicide
		Antimicrobial
		Product Chemistry
		Precautionary Labeling
BEAD		Economic Analysis
		Analytical Chemistry
		Biological Analysis

[illegible] in support of section 3 [illegible] of section 18

[illegible] requirements

[illegible] data in support of continued use of List 1 Inert

- [ ] Confidential Statement of Formula (EPA Form 8570-4) Attached (Trade Secrets)

EPA Form 8570-17 (Rev. 11-88)
Previous editions are obsolete.

White - Data Coordinator
Yellow - Data Review Section

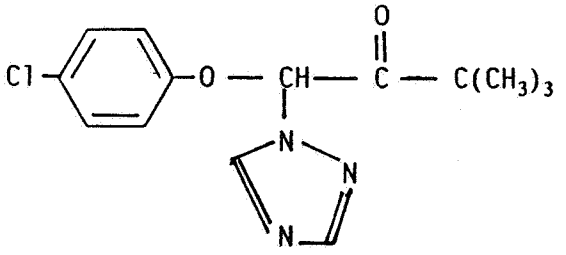
Pink - PM/RM/DCI
Green - [illegible]

2

APPLICATION FOR EXEMPTION UNDER FIFRA SECTION 18

1. CHEMICAL:

Chemical name: 1-(4-chlorophonoxy-3,3-dimethyl-1-(1H-1,2,4-trizol-1-yl)-2-butanone
Common name: Triadimefon (Bayleton)
Structure:



2. TEST MATERIAL:

Not Applicable.

3. STUDY/ACTION TYPE:

Review of application for specific exemption in accordance with FIFRA Section 18 to control powdery mildew on tomatoes in California.

4. STUDY IDENTIFICATION:

Letter with attachment dated March 2, 1989 to Mr. Donald Stubbs, EPA/OPP/RD from Regina Sarracino, Supervisor of Registration, Pesticide Registration Branch, California Department of Food and Agriculture.

Identifying No.:	89-CA-06
Action Code:	510
Record Number:	241,435
Date Sent to EFED:	3/19/89

5. REVIEWED BY:

W. Martin Williams Signature: _____
Hydrologist
OPP/EFED/EFGWB/Ground-Water Technology Section Date: 9/16/89

6. APPROVED BY:

Patrick W. Holden Signature: _____
Section Head
OPP/EFED/EFGWB/Ground-Water Technology Section Date: 9/19/89

7. CONCLUSIONS:

1) Baytan, the biological degradation product of Bayleton, has the potential to leach and persist in ground water that is used for drinking water. If leached beyond the root zone, the persistence of Baytan is considerably longer than the 8-9 month aerobic soil metabolism half-life.

2) Repeated applications can result in a build-up of residues in soil and ground water.

2) No persistent chemical is desired outside of its target area - regardless of toxicity. As such, actions to prevent migration into less microbial active environments should be implemented should the subject Specific Exemption be granted.

8. RECOMMENDATIONS:

1) The subject Specific Exemption should not be granted annually to avoid build-up of residues in soil and ground water.

2) Advisory label statements cautioning users should be included in the protocol, should the subject Specific Exemption be granted, as proposed below:

"This chemical can travel (seep or leach) to ground water that is used for drinking water.

Users are advised to be careful in mixing and handling this chemical to avoid spills.

This product must not be mixed/loaded, or used within 50 feet of sink holes or wells, including abandoned wells and drainage wells."

Do not use in hydrogeologically vulnerable conditions defined as having very permeable (sandy) soils, ground water less than 30 feet, and/or soil conditions conducive to preferential flow conditions (e.g., karst terrain).

Do not over irrigate. Avoid use during periods of heavy rain."

9. BACKGROUND:

Bayleton is a systemic fungicide used against powdery mildew affecting deciduous fruit, cereals and vegetables; azalea petal blight; rust diseases of cereals and coffee; seed grasses and pine; and pineapple disease on sugarcane and pineapple. Formulations include: wettable powder, emulsifiable concentrate, suspension concentrate, and paste.

This Specific Exemption is for use against powdery mildew on tomatoes in California. This Specific Exemption had been granted in 1983, 1987, and 1988.

10. DISCUSSION:

A maximum of 70,000 acres of tomatoes are to be treated under the subject Specific Exemption. A maximum of 8 ground or aerial applications consisting of 1 to 2.5 ounces a.i. per acre at 10-21 day intervals will be made. This results in a maximum total of 87,500 lbs of active ingredient (70,000 acres x 8 applications x 2.5 oz. / 16 oz/lb).

Bayleton is moderately mobile but relatively non-persistent in the environment as shown in Table 1. The major mode of degradation is aerobic and anaerobic soil metabolism. The only significant products of metabolism are carbon dioxide and Baytan (EAB #5024). Baytan is a separately registered pesticide (Shaughnessy #127201) and is slightly more mobile in the environment than Bayleton and considerably more persistent (also shown in Table 1). Based on the relatively rapid oxidation of parent triadimefon, Baytan is the compound of potential concern.

HED should be contacted regarding the toxicity of Bayleton and Baytan in drinking water. Preliminary information indicates that neither Bayleton nor Baytan have significant chronic health risks in drinking water. Reference Doses (RfDs) are on the order 0.025 and 0.038 mg/kg/day, respectively (HED/Toxicology Branch RfD Tracking Report February 1989).

Application rates of the subject Specific Exemption are very low (1 to 2.5 oz a.i./acre). However, up to 8 repeat applications at 10 to 21 day intervals, are in the protocol. Given the degradation rates of Baytan, leaching assessments must consider that up to 1.25 lbs active ingredient (8 x 2.5 oz / 16 oz/lb) may be applied per acre over an 80 to 168 day period. Given 8 to 9 month aerobic metabolism half-lives, this application rate and schedule is unlikely to result in significant residues in soil.

The major concern for this chemical is persistence of Baytan should the compound leach below the root zone and into ground water where anaerobic half-lives are significantly greater than 8-9 months. No persistent chemical is desired outside of its target area - regardless of toxicity. As such, actions to prevent migration into less microbial active environments should be implemented for all uses (see Section 8, "Recommendations").

TABLE 1
LEACHING ASSESSMENT FOR TRIADIMEFON

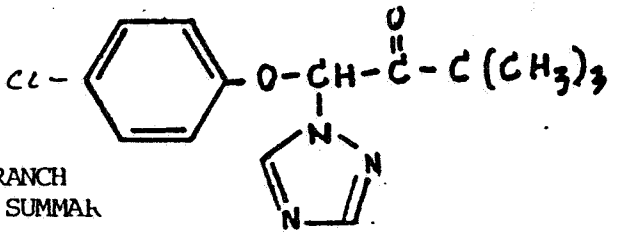
Property	Bayleton[1]	Baytan[2]	Guidelines[3]
Adsorption Partition Coefficient	3.5 - 9.3	0.5 - 3.7	<5.0, <1.0 or 2.0
Solubility (ppm)	70 @ 20° C	49 - 95° C	>30 ppm
Hydrolysis half-life	relatively stable	stable	>25 weeks
Photolysis half-life	stable soil <1 day aqueous	stable soil 36 hr aqueous	>1 week
Aerobic Soil half-life	6-18 days	8-9 months	>2-3 weeks
Anaerobic Soil half-life	15 days	>>8-9 months	>2-3 weeks

[1]EFGWB Pesticide Environmental Fate One Line Summary, 6/22/89.

[2]EFGWB Pesticide Environmental Fate One Line Summary, 1/27/84.

[3]Cohen, S.Z., S.M. Creeger, R.F. Carsel, and C.G. Enfiel, "Potential Pesticide Contamination of Groundwater from Agricultural Uses, in Treatment and Disposal of Pesticide Wastes", ACS Symposium Series #259, R.F. Krueger and J.N. Seiber, ed., American Chemical Society, Washington, D.C., 1984.

5



ENVIRONMENTAL FATE & GROUND WATER BRANCH
PESTICIDE ENVIRONMENTAL FATE ONE LINE SUMMAR

Common Name: TRIADIMEFON Date: 06/22/89
Chem. Name : 1-(4-CHLOROPHENOXY)-3,3-DIMETHYL-1-(1H-1,2,4-TRIAZOL-1-YL)-
: 2-BUTANONE
Synonym : BAYLETON; AMIRAL
Shaugh. # : 109901 CAS Number: 43121-43-3
Type Pest. : FUNGICIDE (SYSTEMIC)
Formulation: WP; EC; SUSP. CONCENTRATE; PASTE; DRY FLOWABLE
Uses : AGAINST POWDERY MILDEW AFFECTING DECIDUOUS FRUIT, CEREALS
: AND VEGETABLES; RUST DISEASES OF CEREALS, COFFEE, SEED
: GRASSES; DISEASES ON SUGARCANE,PINEAPPLE, ORNAMENTALS

Empir. Form: $C_{12}H_{14}ClN_3O_2$ VP (Torr): <E-6
Mol. Weight: 267.5 Log Kow : 2.99
Solub.(ppm): 70 @ 20 C Henry's :

Hydrolysis (161-1)
pH 5:[ ]
pH 7:[ ]
pH 9:[ ] 95% REMAINS AFTER 28 WKS
pH 3:[ ] 97% " " " "
pH 6:[ ] 95% " " " "
pH :[ ]

Photolysis (161-2, -3, -4)
Air :[ ]
Soil :[*] STABLE
Water:[ ] 10-12 HOURS
:[ ]
:[ ]
:[ ]

MOBILITY STUDIES (163-1)

Soil Partition (Kd)

	s	s	c	CEC	%OM	K
1.[ ]						
2.[ ]	46	36	18	27.6	3	9.3
3.[ ]	4	53	43	28.6	2.1	3.5
4.[ ]	92	7	1	26.6	3.7	5.9
5.[ ]						
6.[ ]						

Rf Factors

	%s,	s,	c	%OM	Rf
1.[ ]					
2.[ ]	91	1	1	0.8	0.27
3.[ ]	74	14	13	2.8	0.16
4.[ ]	56	21	23	0.6	0.20
5.[ ]	18	57	25	5.1	0.26
6.[ ]	0	41	59	0.5	0.20

METABOLISM STUDIES (162-1,2,3,4)

Aerobic Soil (162-1)

		%s,	s,	c	%OC	T1/2
1.[ ]	SOIL					
2.[ ]	SiCl	0	66	34	2.4	6 DA
3.[ ]	SL	74	16	10	17.1	18 "
4.[ ]						
5.[ ]						
6.[ ]						
7.[ ]						

Anaerobic Soil (162-2)
1.[ ] SiCl 15 DAYS (STERILE CON-
2.[ ] DITIONS INHIBIT BREAKDOWN)
3.[ ]
4.[ ]
5.[ ]
6.[ ]
7.[ ]

Aerobic Aquatic (162-4)
1.[ ]
2.[ ]
3.[ ]
4.[ ]

Anaerobic Aquatic (162-3)
1.[ ]
2.[ ]
3.[ ]
4.[ ]

[*] - Acceptable Study. [#] = Supplemental Study

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Common Name: **TRIADIMEFON** Date: 06/22/89

GROUND WATER STUDIES (158.75)

1.[ ]
2.[ ]
3.[ ]

BAYTAN
DEGRADATION PRODUCTS

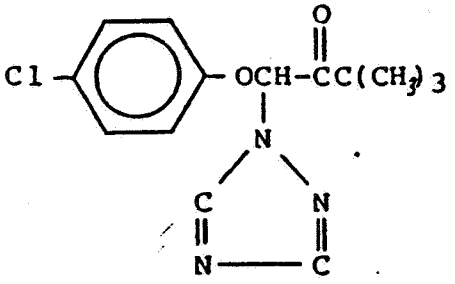
1. KWG (HALF-LIFE IN SOIL = 9-12 MONTHS)
2. TRIAZOLE
3. HYDROXY TRIAZOLE
4.
5.
6.
7.
8.
9.
10.

COMMENTS

AGED RESIDUES ARE MODERATELY MOBILE AND HAVE THE POTENTIAL TO LEACH INTO GROUND WATER.

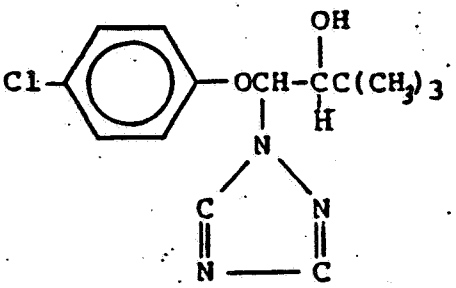
THE DEGRADATE, KWG 0519, HAS A HALF-LIFE OF 9-12 MONTHS IN SOI

References:
Writer : J. HANNAN



BAYLETON

[TRIADIMEFON]



KWG 0519

[BAYTAN]

FILE COPY Date: 1/27/84
Initials: NKW

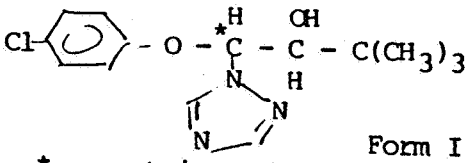
EXPOSURE ASSESSMENT BRANCH ONE LINER

EAB FILE NO: 127201

TYPE PESTICIDE: Fungicide

COMMON NAME: Baytan

STRUCTURE:



CHEMICAL NAME: 1-(4-chlorophenoxy)-3,3-dimethyl-1-(H-1,2,4-triazole-1-yl)-2-butanol

Form I - D
* asymetric carbon = Form II- L

CHEMICAL PROPERTIES:

Molecular Weight	Aqueous Solubility	Vapor Pressure
	Form I 95 ppm Form II 49 ppm	

Partition Coefficients:

Octanol/Water (K_{ow})
Form I 794
Form II 1305

Soil Adsorption

Mobility Class: 2

Soil Type:	% Soil O.M.	Coefficients K	Coefficients K_{oc}	TLC R_f
Kansas loam	3.0	5.26		
Hagerstown Silty Clay	2.1	2.37		
Florida Sand	3.7	4.05		
Kansas silty clay	0.5			0.16
Oregon sandy loam	2.3			0.58

Hydrolysis

pH	Half-Life
4.5	stable
7.1	stable
9.2	stable

Photolysis

Half-Life
Soil: stable
Water: 36 hr
photo-sensitzd: 17 hr. (acetone)

Degradation

Lab Half-Life
Soil
Aerobic: 8-9 months
Anaerobic: >>8-9 mos.
Aquatic
Aerobic:
Anaerobic:

Field Half-Life
Soil:
Aquatic:

FISH BIOACCUMULATION FACTORS

Species	Tissue Edible	Tissue Viscera	Whole Fish	Depuration Half-Life
	X	X	X	

FOUND IN GROUND WATER? ESTABLISHED REENTRY INTERVAL ROTATIONAL CROP RESTRICTIONS

COMMENTS: for seed treatment, field dissipation, rotational crop and fish acc. were waived.

REFERENCES: files

FILE COPY

Data Requirement	Terrestrial Satisfied	Aquatic Satisfied	Comments
HYDROLYSIS	6/22/83		
PHOTODEGRADATION			
soil	1/27/84		
water	1/27/84		
SOIL METABOLISM			
aerobic	6/22/83		
anaerobic			
LEACHING			
column	6/22/83		
batch	1/27/84		
TLC	6/22/84		
FIELD DISSIPATION			
soil			waived for seed treatment 6/22/83
water			
forest			
ROTATIONAL CROP			waived for seed treatment 6/22/83
IRRIGATED CROP			
FISH ACCUMULATION			waived for seed treatment 6/22/83
AQUATIC NON-TARGET			

BAYTAN

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87-LN-16

STATE OF CALIFORNIA — GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF FOOD AND AGRICULTURE
1220 N Street, P.O. Box 942871
Sacramento, California 94271-0001

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March 2, 1989

Mr. Donald Stubbs
Emergency Response Section, Room 716
Registration Division (TS-767) C
U.S. Environmental Protection Agency
Crystal Mall, Building 2
1921 Jefferson Davis Highway
Arlington, Virginia 22202

Dear Don:

Reissuance Request for Section 18 Specific Exemption
Bayleton / Tomatoes / To Control Powdery Mildew

The California Department of Food and Agriculture requests the reissuance of the subject specific exemption. The subject specific exemption has expired and without effective alternative materials, the emergency situation and the potential for severe losses due to powdery mildew is present again.

The justification of the need is the same as previously outlined in the 1983 and the 1987 specific exemption requests. Copies of the January 15, 1988 specific exemption request; the February 1, 1988 authorization telegram from EPA; and the March 1, 1988 Section 18 label are enclosed for reference.

No changes are necessary to update the treatment program. An action level is requested for tomatoes treated under this exemption.

The 1988 specific exemption expired on February 28, 1989. The county pesticide use reports will be submitted after that date. A preliminary estimate of these results has shown that approximately 60,000 acres of tomatoes were treated. Excellent control was achieved using Bayleton and there were no reported adverse effects.

A petition for residue tolerance, #4F-3148, for this use pattern has been submitted to the EPA by the manufacturer. This exemption is necessary from March 1989 through March 1990.

The total value of the crop in recent years is listed as follows:

*Year	1,000 Acres	1,000 Short Tons	$ Million
1986	239.0	6,877.2	584.0
1985	268.3	6,491.2	584.6
1984	269.1	6,901.1	525.6
1983	263.0	6,325.4	569.2

*Statewide

These figures are taken from California Agriculture 1983-1986.

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Additional economic information is presented as follows:

Fresh Market	Total Acres	Yield Per Acre	Total Production	Price	Value
1984	27,900	267 cwt.	7,452,000 cwt.	$25.3 cwt.	$188,576,000
1985	28,600	272 cwt.	7,783,000 cwt.	19.4 cwt.	150,627,000
1986	28,600	278 cwt.	7,950,800 cwt.	20.7 cwt.	164,581,000
1987	28,600	275 cwt.	7,865,000 cwt.	19.1 cwt.	150,000,000
1988	29,000	265 cwt.	7,685,000 cwt.	19.6 cwt.	151,000,000
Processing					
1984	239,700	27.50 tons	6,591,750 tons	$64.8/ton	$427,145,000
1985	217,000	28.12 tons	6,102,040 tons	64.1/ton	391,141,000
1986	210,500	30.50 tons	6,480,320 tons	63.8/ton	410,000,000
1987	213,000	31.50 tons	6,701,376 tons	64.4/ton	430,898,470
1988	224,000	29.10 tons	6,519,000 tons	46.9/ton	306,365,000

This information was provided by Yolo County but is representative of tomato growing areas statewide.

Bayleton was available for use during all of the years above.

Additional economic information, such as crop loss with and without the proposed material, costs of the pesticide treatment, and production costs, have been thoroughly outlined in the previous requests.

This Section 18 emergency exemption use pattern was reviewed by the Department's residue chemistry, fish and wildlife, and worker safety staff. The manufacturer, Mobay Corporation, has been notified of this specific exemption request and is in concurrence. In addition, the appropriate state agencies are also being notified of this specific exemption request through routine weekly notices which the California Department of Food and Agriculture distributes. Comments received after the submission of this request will be forwarded to the EPA.

Mr. David Harlow, Sacramento Office of Endangered Species, has been contacted concerning the potential risks to endangered species and will respond to your Agency upon the completion of his review.

Mr. Gene Miyao, Farm Advisor - Yolo County, may be contacted as a knowledgeable expert. The telephone number is (916) 666-8140.

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Thank you for your help with this exemption. If you should have any further questions, please contact Margaret Reiff at (916) 322-3685.

Sincerely,

Regina Sarracino
Supervisor of Registration
Pesticide Registration Branch
(916) 322-3685

Enclosures

STATE OF CALIFORNIA — GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF FOOD AND AGRICULTURE
1220 N Street, P.O. Box 942871
Sacramento, California 94271-0001

March 1, 1988 — No. 88-2

CALIFORNIA AUTHORIZATION FOR PESTICIDE USE UNDER EPA SECTION 18
SPECIFIC EXEMPTION FOR DISTRIBUTION AND USE ONLY WITHIN CALIFORNIA

Pursuant to authority granted under Section 18 of the Federal Insecticide, Fungicide and Rodenticide Act and 40 CFR, Part 166, approval is granted to use the pesticide shown below to control specified emergency.

Product:		EPA Reg. No.:	
1.	Bayleton 50% Dry Flowable Fungicide	1.	3125-320-ZA
2.	Bayleton 50% Wettable Powder Fungicide	2.	3125-320-AA
3.	Bayleton 50% Wettable Powder Fungicide in Water Soluble Packets	3.	3125-340-AA

Firm Name: Mobay Corporation
Location: Statewide
Crop/Site/Commodity: Fresh market and processing tomatoes
Target Pest/Problem: Powdery mildew
Dosage: Apply 2 to 5 ounces of product (1 to 2.5 ounces a.i.) per acre.
Dilution Rate: Apply using a minimum of 20 gallons of water per acre.
Method of Application: Ground or aerial
Frequency/Timing of Application: Maximum of 8 applications at 10-21 day intervals.
Worker Safety Reentry Interval: Do not enter treated areas until spray residue has dried.
Preharvest Interval: 24 hours
Effective Date: March 1, 1988
Expiration Date: February 28, 1989
Other Requirements:

1. As stated on the federal label, all crops may be planted 12 months or later after the last application of BAYLETON without any restrictions with the following exceptions:
   a. Small grains, corn, sorghum, soybeans, beans, peas and cucurbits may be planted 35 days after the last application of BAYLETON; however, forage or vines from these crops may not be used for food or feed.
   b. Root crops may be planted 120 days after the last application of BAYLETON but tops must not be used for food or feed.
2. An action level of 2 ppm has been established for triadimefon and its metabolites on tomatoes and processed fractions. Tomatoes and processed fractions with residues greater than this shall not enter the channels of trade.
3. A maximum of 70,000 acres of tomatoes may be treated.

All applicable directions, restrictions, and precautions on the EPA registered label and this label must be followed.

This labeling must be in the possession of the user at the time of pesticide application.

The Department shall be immediately informed of any adverse effects resulting from the use of this exemption.

Please note: The EPA expects concerned growers or grower groups to work toward the registration of use patterns that may be needed on a continuing basis. It will, therefore, be necessary to require applicants wishing to renew emergency exemptions to provide a progress report on residue tolerance and registration along with requests for reissuance of an emergency exemption renewals. Without substantial progress in pursuing a tolerance and registration for the use in question, it will be difficult to obtain an emergency exemption for a second season. The pesticide manufacturer or Western Region IR-4 may be contacted regarding the initiation of a pesticide petition for residue tolerance.

A final report must be submitted by the county agricultural commissioner to Pesticide Registration, California Department of Food and Agriculture, within 45 days of the expiration date of this exemption. This report must include the following information:

a. Amount of product used.
b. Units (i.e., acres, trees, cattle) treated.
c. Number of applications.
d. Estimate of effectiveness.
e. Any adverse effects noted.

Prior to use under this exemption, a permit must be obtained from the county agricultural commissioner. The permit shall state the maximum amount of acres to be treated, maximum amount of product that may be applied, and dealer from which the product may be purchased. Before sale or delivery of the product, the dealer must obtain a copy of the purchaser's permit or obtain a signed statement that he/she holds a valid permit to purchase, possess, and use the amount of the product purchased. The dealer shall maintain a record of each sale which shall be made available to representatives of the Department of Food and Agriculture or county agricultural commissioner upon request. Such records shall include the date of sale or delivery, permit number, identity and amount of product purchased, and the name of the purchaser. All applications of this material shall be made by or under the supervision of a certified applicator certified for this category of pest control. If this material is a liquid Category I pesticide, all applications will be made in accordance with California closed mixing system regulations. Applicators shall submit a pesticide use report

to the county agricultural commissioner within seven days of each treatment. The county agricultural commissioner in cooperation with the Department of Food and Agriculture, will monitor the use of the product under this exemption and will prepare a written report describing any unusual or adverse effects attributable to this use.

This exemption does not constitute a recommendation of the Department of Food and Agriculture and will not prevent quarantine action if illegal residues are found in or on any crop. Neither the Department nor the county agricultural commissioner, manufacturer or formulator makes any warranty of merchantability, fitness of purpose, or otherwise, expressed or implied, concerning the use of a pesticide in accordance with these provisions. The user and/or grower acknowledges the preceding disclaimer and accepts liability for any possible damage or nonperformance resulting from this use.

Regina Sarracino

Regina Sarracino
Supervisor of Registration
Pesticide Registration Branch
(916) 322-3685