

109701
Shaughnessy No.

Date out of EAB: 23 MAY 1983

To: Gee/Dively
Product Manager # 17
Registration Division (TS-767)

David Sever
R. Hamli

From: Richard V. Moraski, Ph.D., Acting Chief
Environmental Chemistry Review Section No. 1
Exposure Assessment Branch
Hazard Evaluation Division (TS-769)

Attached please find the EAB review of...

Reg./File No.: 2F 2752

Chemical: Permethrin

Type Product: Insecticide

Product Name: Pounce

Company Name: FMC Corporation

Submission Purpose: label review/indoor exposure assessment

ZBB Code: ?

Action Code: 435

Date In: 4/7/83

EFB #: 3310

Date Completed: 5/17/83

TAIS (level II) Days

67 2

Deferral To:

X Toxicology Branch

1.0 INTRODUCTION

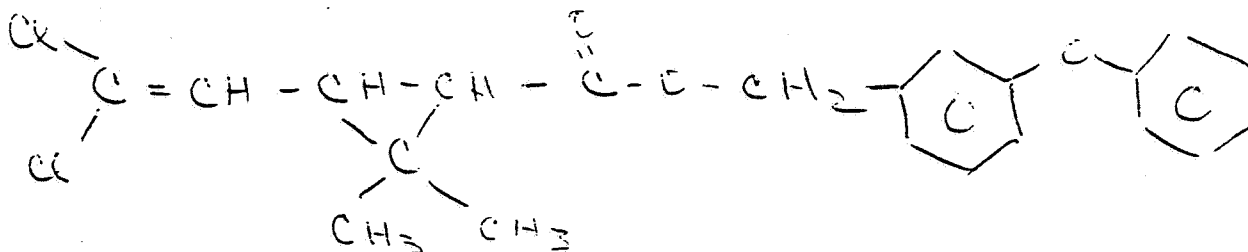
This review is the sixth in a series of human exposure analyses requested by RD for the insecticide permethrin. Previous exposure analyses are dated 01/19/83, 01/26/83, 02/02/83, 03/03/83, and 03/20/83.

The products reviewed for this assessment are:

Pounce Mushroom Dust Insecticide
Pounce 3.2 EC Insecticide
Pounce Mushroom Spraymist Insecticide

The labels for these products are attached to this review.

2.0 Permethrin



(3-phenoxyphenyl)methyl(+)-cis,trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

Cis/trans ratio: Max 55% (+) cis and min 45% (+) trans

3.0 EXPOSURE ASSESSMENT

EAB believes that the exposure potential to these products can be determined in the same manner to the exposure potential determined in previous exposure assessments for other permethrin products.

(1) Pounce Mushroom Dust (2% permethrin)

According to the label exposure should be limited to 1 hr and a full-faced gas mask is recommended. Treatment can be daily but not more than 30 applications per crop of 5 breaks. Up to 5 crops per year are possible (personal communication with N. Pelletier, BFSB).

Respiratory exposure should be negligible because of the use of a canister type dust mask. Dermal exposure per application is assumed to be similar to that determined for Ectiban D dust bag use. Since the amount of permethrin in the Pounce product is 8x the amount in Ectiban D, the dermal exposure is expected to be 0.24 mg/kg/application (70 kg male).

The potential yearly exposure then is (0.24 mg/kg/application x 150 applications/year) or 36 mg/kg/yr.

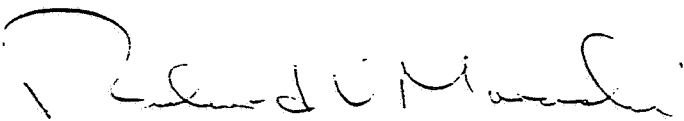
(2) Pounce Spraymist and 3.2 EC (38.4% permethrin)

With the use of a canister type face mask, the respiratory exposure from application of these products is expected to be negligible. Dermal exposure estimates are determined in the same way that was outlined in our review of 02/02/83. According to the label, there are about 0.03 lb ai/pt of dilute solution [2.5 oz product (0.0625 lb ai) in 30 oz of diluent]. It is assumed that 0.048 pt of diluted material will impinge on the exposed skin surface of the applicator per application. Then the potential dermal exposure for a 70 kg male is determined to be 9.3 mg/kg/application.

As with the dust, up to 30 applications per crop are recommended. If 5 crops per year are grown, it is possible that up to 150 applications of Pounce may be realized. The annual exposure based on 150 applications is calculated to be 1395 mg/kg/yr.

4.0 RECOMMENDATION

EAB defers to Toxicology Branch the exposure values determined above for completion of the risk assessment as a result of the use of these products.



Richard V. Moraski, Ph.D.
Chemist, Review Section No. 1
Exposure Assessment Branch

Pounce[®] Mushroom Dust Insecticide

For Agricultural or Commercial Use Only

EPA Reg. No. 279-

EPA Est., 279-FL-1

Active Ingredient

Permethrin..... 2%

Inert Ingredients..... 98%
100%

*(3-Phenoxyphenyl) methyl (±) *cis-trans* 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

***cis/trans* ratio: Max. 55% (±) *cis* and min. 45% (±) *trans*

Pounce[®]—FMC Trademark

U.S. Patent No. 4,024,163

KEEP OUT OF REACH OF CHILDREN

CAUTION

First Aid

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash with plenty of soap and water. Get medical attention.

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

For Emergency Assistance Call 716—735-3765.

See Other Panels for Additional Precautionary Information.

FMC

FMC Corporation
Agricultural Chemical Group
2000 Market Street
Philadelphia Pennsylvania 19103

PRECAUTIONARY STATEMENTS

Hazards to Humans (& Domestic Animals)

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Remove and wash clothing before reuse.

Environmental Hazards

Do not contaminate water by cleaning of equipment, or disposal of wastes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide, spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to applicable Federal, state or local procedures. Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of bags in a sanitary landfill or by incineration if allowed by State and local authorities.

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

Mushroom Houses and Adjacent Premise Areas

For control of mushroom flies (Sciarid and Phorid adults):

Preparation of the Building Prior to Fogging:

- (1) Close all doors, windows and ventilators
- (2) Lock or barricade all entrances, turn off pilot lights, post warning signs, and take precautions to prevent persons and animals from entering the area.

Application:

Apply Pounce Mushroom Dust at the rate of 3 pounds (0.06 lb. a.i.) of Pounce Mushroom Dust per standard double (35,000 cu. ft.: 8000 sq. ft.)

5

Use Pounce Mushroom Dust prior to filling house, during cool-down, during spawning, up to pinning and between breaks. Do not use when mushrooms are present. Treat once daily or as needed when flies appear. Do not make more than 20 applications prior to pinning of first break. Apply no more than two applications between each break. Do not apply more than 30 applications total per crop of 5 breaks.

Do not apply within 24 hours of harvest.

Length of exposure time should be limited to 1 hour, then ventilate the house. Use fans to ventilate in houses that do not have forced air circulation. Wear full-faced gas mask with canister type recommended for general insecticide protection.

Dealers Should Sell in Original Packages Only.

Terms of Sale or Use: On purchase of this product buyer and user agree to the following conditions:

Warranty: FMC makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted, the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by buyer at his own risk.

Use of Product: FMC's recommendations for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.

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PAGE 1 OF 3

RESTRICTED USE PESTICIDE

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

Pounce[®] 3.2 EC Insecticide

EPA Reg. No. 279-3014

EPA Est., 279-FL-1

Active Ingredients:

"Permethrin"	38.4%
Xylene range aromatic solvent	50.2%
Inert Ingredients	11.4%
	100.0%

*(3-Phenoxyphenyl) methyl (±) *cis-trans* 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
***cis/trans* ratio: Max. 55% (±) *cis* and min. 45% (±) *trans*

Contains 3.2 lbs. permethrin per gallon.

Pounce[®]—FMC Trademark U.S. Patent No. 4,024,183

KEEP OUT OF REACH OF CHILDREN

CAUTION

First Aid:

If in eye, flush eyes with water for 15 minutes. Call a physician.

If swallowed, do not induce vomiting. Call a physician.

If on skin, remove contaminated clothing. Wash with plenty of soap and water. Get medical attention if irritation persists.

Note to Physician: Vomiting should be supervised by a physician or the professional staff because of the possible pulmonary damages by aspiration of the solvent.

For Emergency Assistance Call 716-735-3765.

See Other Panels for Additional Precautionary Information.

PRECAUTIONARY STATEMENTS

Hazards to Humans (& Domestic Animals)

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Remove and wash clothing before reuse.

Environmental Hazards

This product is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are actively foraging. Additional information may be obtained from your Cooperative Extension Service.

This product is extremely toxic to fish. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment, or disposal of wastes.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Storage and Disposal

Do not store below 10° F (-12° C). Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to applicable Federal, State, or local procedures. To dispose of container, triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and local procedures. Do not cut or weld this container.

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

FMC

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Philadelphia Pennsylvania 19103

MUSHROOM HOUSES AND ADJACENT PREMISE AREAS

For control of mushroom flies (Sciarid and Phorid adults):

Preparation of the Building Prior to Fogging:

- (1) Close all doors, windows and ventilators
- (2) Lock or barricade all entrances, turn off pilot lights, post warning signs, and take precautions to prevent persons and animals from entering the area.

Application:

Apply Pounce 3.2EC as a fogging or aerosol treatment at the rate of 2 to 2.5 ounces (0.05-0.0625 lb. a.i.) Pounce 3.2EC per 30 ounces of water or suitable diluent. Use 1 quart of solution per standard double (35,000 cu. ft.: 8,000 sq. ft.).

Use Pounce 3.2EC prior to filling house, during cool-down, during spawning, up to pinning and between breaks. Do not use when mushrooms are present. Treat once daily or as needed when flies appear. Do not make more than 20 applications prior to pinning of first break. Apply no more than two applications between each break. Do not apply more than 30 applications total per crop of 5 breaks.

Do not apply within 24 hours of harvest.

Length of exposure time should be limited to 1 hour, then ventilate the house. Use fans to ventilate in houses that do not have forced air circulation. Wear full-faced gas mask with canister type recommended for general insecticide protection.

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Cotton

To control beet armyworm (California and Arizona only), bollworm, cabbage looper, cotton fleahopper, cotton leaf perforator, Lygus bugs, pink bollworm, tarnished plant bug and tobacco budworm—Use Pounce 3.2 EC at a rate of 4 to 8 ounces (0.1 to 0.2 pound active) per acre. Use higher dosage rates as population pressure increases. To control boll weevil, alternate Pounce 3.2 EC at 4 ounces (0.1 lb. active) per acre with Pounce 3.2 EC at 2 ounces (0.05 lb. active) per acre every 3-4 days until control is achieved.

Apply the above rates in a minimum of one gallon of water per acre by aircraft and 5 gallons of water per acre with ground equipment. Pounce 3.2 EC may also be applied using refined non-volatile vegetable oil for control of the above named insects. Pounce 3.2 EC should be diluted with oil and applied in a minimum of one quart total volume/acre using equipment calibrated to give adequate coverage. To control bollworm and tobacco budworm use 2 to 8 ounces (0.05 to 0.2 lb active) per acre. The 2 ounce rate per acre should be used only when insect infestation levels are light and the cotton is closely scouted before and after application.

Do not make more than 15 applications per season. Do not apply within 14 days of harvest. Do not graze or feed cotton forage. Do not plant rotational crops within 60 days of last application.

Cotton Tank-Mix

Pounce® 3.2 EC Plus Tank Mixtures (all cotton growing states). Mix Pounce 3.2 EC at 4.0-8.0 ounces/acre (0.1-0.2 lb. ai/acre) with other insecticides recommended on this label for control of cotton insect pests. Pounce 3.2 EC has been found to be effective and compatible in tank mixtures with the following products:

Methyl Parathion
EPN Plus Methyl Parathion
Methomyl
Guthion
Azinphos-Methyl
Malathion
Chlordaneform

When using Pounce 3.2 EC in tank mixtures, observe all restrictions and precautions which appear on the labels of these products. Apply tank mixtures immediately after mixing.

Dealers Should Sell in Original Packages Only.

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Warranty: FMC makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted, the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by buyer at his own risk.

Use of Product: FMC's recommendations for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.

Code

Pounce[®] Mushroom Spraymist Insecticide

For Agricultural or Commercial Use Only

EPA Reg. No. 279-

EPA Est., 279-FL-1

Active Ingredients:

*Permethrin** 38.4%

Xylene range aromatic solvent 50.2%

Inert Ingredients: 11.4%

100.0%

*(3-Phenoxyphenyl) methyl (±) *cis-trans* 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

***cis/trans* ratio: Max. 55% (±) *cis* and min. 45% (±) *trans*

Contains 3.2 lbs. permethrin per gallon.

Pounce[®]—FMC Trademark U.S. Patent No. 4,024,163

KEEP OUT OF REACH OF CHILDREN

CAUTION

First Aid:

If in eyes, flush eyes with water for 15 minutes. Call a physician.

If swallowed, do not induce vomiting. Call a physician.

If on skin, remove contaminated clothing. Wash with plenty of soap and water. Get medical attention if irritation persists.

Note to Physician: Vomiting should be supervised by a physician or the professional staff because of the possible pulmonary damages by aspiration of the solvent.

For Emergency Assistance Call 716—735-3765.

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PRECAUTIONARY STATEMENTS

Hazards to Humans (& Domestic Animals)

CAUTION

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Environmental Hazards

Do not contaminate water by cleaning of equipment, or disposal wastes.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Storage and Disposal

Do not store below 10° F (-12° C). Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to applicable Federal, State, or local procedures. To dispose of container, triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and local procedures. Do not cut or weld this container.

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- (1) Close all doors, windows and ventilators
- (2) Lock or barricade all entrances, turn off pilot lights, post warning signs, and take precautions to prevent persons and animals from entering the area.

Application:

Apply Pounce Mushroom Spraymist as a fogging or aerosol treatment at the rate of 2 to 2.5 ounces (0.05-0.0625 lb. a.i.) Pounce Mushroom Spraymist per 30 ounces of water or suitable diluent. Use 1 quart of solution per standard double (35,000 cu. ft.: 8,000 sq. ft.).

Use Pounce Mushroom Spraymist prior to filling house, during cool-down, during spawning, up to pinning and between breaks. Do not use when mushrooms are present. Treat once daily or as needed when flies appear. Do not make more than 20 applications prior to pinning of first break. Apply no more than two applications between each break. Do not apply more than 30 applications total per crop of 5 breaks.

Do not apply within 24 hours of harvest.

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Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.