

OCT 21 1996

PM 10

5440-115

10/7

Stan Iverson
Cardinal Chemical Company
1233 E. Beamer Street, Suite G
Woodland, CA 95776

Dear Mr. Iverson:

Subject: Amended Product Labeling
Cardinal Food Plant 25-5 Insecticide
EPA Registration Number 5440-115
Submission Dated October 11, 1996

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments listed below:

1. Move the second paragraph of the Precautionary Statements ("Do not apply directly . . . washed before use.") so that it appears as the second paragraph of the Directions for Use.
2. Revise the Environmental Hazards Statement to read as follows:

"This product is toxic to fish and other aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes."
3. Move the Storage and Disposal Statement so that it appears at the end of the Directions for Use.
4. Delete the sentence "Follow instructions under "Precautionary Statements." from the following sections of the label:
 - a. Indoor Use as a Space Spray, Undiluted
 - b. Dried Fruit Products
 - c. Indoor Use as a Space Spray, Diluted
 - d. Surface Spray

This referral statement is not needed as a result of moving the referenced paragraph from the Precautionary Statements to the Directions for Use.

2 of 7

A stamped copy of the label is enclosed. Please submit three copies of revised final printed labeling prior to releasing product for shipment.

If you have any questions or comments, please contact me at (703) 305-6788.

Sincerely,

RPK

Richard P. Keigwin, Jr.
Product Manager 10
Insecticide-Rodenticide Branch
Registration Division (7505C)

3 of 17

CARDINAL 25-5 INSECTICIDE

CONTAINS 5% PYRETHRINS

FOR INDOOR OR OUTDOOR APPLICATION AS A SPACE, AREA OR CONTACT SPRAY. DEPENDENT UPON PESTS TO BE CONTROLLED AND THE AREA TO BE TREATED, MAY BE APPLIED THROUGH MECHANICAL GENERATORS (ULV) AS WELL AS CONVENTIONAL FOGGING OR SPRAYING EQUIPMENT.

ACTIVE INGREDIENTS	
Pyrethrins	5.00%
Piperonyl Butoxide, Technical*	25.00%
INERT INGREDIENTS**	70.00%
TOTAL	100.00%

- * Equivalent to 20.00 % (butylcarbityl) (6-propylpiperonyl) Ether and 5.00% related compounds.
- ** Contains Petroleum Distillates.

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a doctor or get medical attention. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

IF ON SKIN: Wash skin with plenty of soap and water. Get medical attention if irritation persists.-

See Side Panel For Additional Precautionary Statements.

CARDINAL CHEMICAL COMPANY

1233 E. Beamer Street, Suite G - Woodland, CA 95776

E.P.A. EST. NO. 5440-CA-1

E.P.A. REG. NO. 5440-115

ACCEPTED
with COMMENTS
in EPA Letter Dated

OCT 21 1996
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, this pesticide
registered under EPA Reg. No.

5440-115

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
AND DOMESTIC ANIMALS:
CAUTION**

HARMFUL IF SWALLOWED OR INHALED. AVOID BREATHING VAPORS OR SPRAY MIST. AVOID CONTACT WITH SKIN, EYES, OR CLOTHING. WASH EXPOSED SKIN WITH SOAP AND WATER AFTER HANDLING. REMOVE CONTAMINATED CLOTHING AND WASH CLOTHING BEFORE REUSE.

DO NOT APPLY DIRECTLY TO FOOD. IN COMMERCIAL FOOD HANDLING FACILITIES, COVER OR REMOVE ANY FOOD AND FOOD PROCESSING EQUIPMENT BEFORE APPLICATION. DO NOT APPLY WHILE FOOD PROCESSING IS UNDERWAY. AFTER SPACE SPRAYING IN MEAT PACKING PLANTS, BAKERIES, AND OTHER FOOD PROCESSING PLANTS, ALL EQUIPMENT, BENCHES, SHELVING, ETC. WHERE FOOD WILL BE HANDLED MUST BE WASHED WITH AN EFFECTIVE CLEANING COMPOUND AND RINSED WITH POTABLE WATER. IN THE HOME, ALL FOOD PROCESSING SURFACES AND UTENSILS SHOULD BE COVERED DURING TREATMENT OR THOROUGHLY WASHED BEFORE USE.

REMOVE PETS AND BIRDS AND COVER FISH AQUARIUMS BEFORE SPRAYING.

ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL/CHEMICAL HAZARDS

Combustible. Extinguish open flame before space spraying. Do not use, pour, spill, 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 contaminate water, food or feed by storage or disposal.

STORAGE: Store product in original container in a cool, dry, locked place out of reach of children.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Metal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. **Plastic:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stand out of smoke.

Directions For Use Continued, Column 3

CARDINAL 25-5 INSECTICIDE is effective in the control of the indicated insects if the applicator follows directions for use as enumerated below:

- | | |
|------------------------|---------------------------|
| Angoumois Grain Moth | Horn Flies |
| Ants | Hornets |
| Boxelder Bugs | Horse Flies |
| Caddises | House Flies |
| Cheese Mites | Indian Meal Moths |
| Cheese Skippers | Lice |
| Cigarette Beetles | Mediterranean Flour Moths |
| Clover Mites | Mosquitoes |
| Cockroaches (German) | Mushroom Flies |
| Confused Flour Beetles | Red Flour Beetles |
| Dark Mealworms | Rice Weevils |
| Deer Flies | Saw Toothed Grain Beetles |
| Dried Fruit Beetles | Silverfish |
| Drugstore Beetles | Small Flying Moths |
| Earwigs | Spiders |
| Fruit Flies | Spider Beetles |
| Gnats | Stable Flies |
| Grain Mites | Tobacco Moths |
| Granary Weevils | Wasps |
| | Yellow Mealworms |

INDOOR USE AS A SPACE SPRAY, UNDILUTED

The use of this product in food processing or food handling establishments (bakeries, beverage plants, canneries, food processing plants, hospitals, hotels, industrial installations, restaurants, schools, supermarkets, and warehouse) should be confined to the time periods when the plants or facilities are not in operation. Do not apply directly to food. Follow instructions for treating food handling facilities under "Precautionary Statements".

In hospitals, patients should be removed from room prior to treatment. Room should be ventilated for two hours after spraying. Do not return patients to room until after ventilation.

Close windows and doors and shut off ventilating systems. Use a fogger or vaporizer adjusted to deliver an aerosol spray (no droplets over 50 microns in diameter and 80% less than 30 microns). Apply at a rate of 1/2 ounce per 1000 cubic feet of space. Direct the spray toward the ceiling and upper corners of the area and behind obstructions. Keep the area closed for at least 15 minutes. Vacate the treated area and ventilate before reoccupying. Repeat treatment as necessary.

The above described application will kill accessible, exposed stages of flies, (including fruit flies) mosquitoes, small flying moths, gnats, wasps, hornets, clover mites, cheese mites, cheese skippers, boxelder bugs, earwigs, ants, and the following common stored product pests: granary weevils, rice weevils, confused flour beetles, saw-toothed grain beetles, spider beetles, cigarette beetles, drugstore beetles, Angoumois grain moths, Mediterranean flour moths, Indian meal moths, tobacco moths, yellow mealworms, dark mealworms, grain mites, caddises and red flour beetles.

DRIED FRUIT PRODUCTS in storage or being processed, for control of confused flour beetles, dried fruit beetles, Indian meal moths, saw-toothed grain beetles. Remove and destroy infested products. Do not apply directly to food. Follow instructions under "Precautionary Statements".

6087

Disperse this product as a fine mist in the air above the trays and shelves. Use 1 ounce per 1000 cubic feet of space. Repeat application at this dosage in any given month. Leave the room closed for one hour. Do not remain in treated areas and ventilate area before reentry. This application will kill accessible, exposed stages of dried fruit beetles as well as those pests named above.

STORED FOOD: (Stored in multi-walled bags or in cloth bags) in warehouses, storage rooms, flour mills, grain elevators, granaries, for control of Angoumois grain moths, cadelles, confused flour beetles, Indian meal moths, Mediterranean flour moths, rice weevils, saw toothed grain beetles, yellow mealworms, cheese mites, cheese skippers, cigarette beetles, grain mites, granary weevils, dark meal worms, red flour beetles. Remove and destroy infested products. As directed above, disperse this product first by directing spray into corners, under pallets, and around stacks of packaged foods hitting as many insects as possible and then as a space spray. Infested stored products should be fumigated or treated by other effective methods using an approved product intended for this purpose. Use a dosage of 1 fluid ounce per 1000 cubic feet of room space. Repeat application as necessary for insect control. Leave the room closed for one hour. Do not remain in treated areas and ventilate area before reentry. This application will kill accessible, exposed stages of those stored product pests listed above.

INDOOR USE AS A SPACE SPRAY, DILUTED: For use in conventional mechanical fogging equipment, to kill flies, fruit flies, mosquitoes, small flying moths, and gnats. Do not apply directly to food. Follow instructions under "Precautionary Statements". Close room and shut off all air conditioning or ventilating equipment. Dilute 1 part of Cardinal 25-5 Insecticide plus 49 parts of oil (refined kerosene) and mix well. Apply at the rate of 1-2 fluid ounces per 1000 cubic feet filling the room with mist. Keep area closed for at least 15 minutes. Vacate treated area and ventilate before reoccupying. Repeat treatment when reinfestation occurs.

SURFACE SPRAY: To insure maximum control of crawling insects (ants, boxelder bugs, clover mites, drugstore beetles, earwigs, lice, spider beetles) dilute 1 part of Cardinal 25-5 Insecticide plus 49 parts of oil (refined kerosene) and mix well and apply as a coarse droplet using approximately 1 gallon to 750 square ft. of surface. Do not apply directly to food. Follow instructions under "Precautionary Statements." Spray walls, floors, and other surfaces of bins and storage and handling areas thoroughly, being especially careful to treat cracks, crevices, and similar hiding places. Treat unloading, handling and processing areas, and inside conveying, processing and handling equipment. Spray thoroughly around the base of heavy machinery and equipment. Spray insects directly when possible.

FOR IN-TRANSIT PROTECTION. Clean and spray truck beds, boxcars, and ship's hold before loading. Thoroughly treat walls and floors and spray each layer of cartons or containers lightly as stacked. To control Indian meal moth and Angoumois grain moth in stored grain, apply to the surface of binned grain at a rate of 1 gallon per 1000 square feet. Apply at monthly intervals with the first appearance of moths and continuing until early fall. In case of severe infestation, break up webbing with rake before spraying and make a second application in two weeks.

As an aid in the control of mosquitoes, gnats, wasps, and skippers: treat walls, ceiling, moldings, screens, door and window frames, beams, light cords, and similar resting places.

ANIMAL QUARTER USE (cattle barns, horse barns, poultry houses, swine houses, zoos): As a space spray diluted for use in conventional mechanical fogging equipment to kill flies, mosquitoes, small flying moths and gnats. Dilute 1 part of Cardinal 25-5 Insecticide plus 49 parts of oil (refined kerosene) and mix well. Apply at the rate of 2 fluid ounces per 1000 cubic feet of space above the animals. Direct spray towards the upper portions of the enclosure, filling the room with mist. Keep area closed for at least 15 minutes. Vacate treated area and ventilate before reoccupying. Repeat treatment when reinfestation occurs.

7047

OUTDOOR GROUND APPLICATION UNDILUTED to control adult mosquitoes, gnats and small flying moths. For best results, apply when there is a light breeze at approximately 5 miles per hour. Apply from the windward side so the fog will be carried across the area to be treated. Treat shrubbery and vegetation where mosquitoes may rest. Shrubby and vegetation around stagnant pools, marshy areas and ponds may be treated. Application of this product to any body of water is prohibited. Repeat treatment as required.

Using truck-mounted equipment, the objective is to treat the area with .0222 to .0025 pounds of pyrethrins and .010 to .0125 pounds of piperonyl butoxide per acre. Cardinal 25-5 insecticide should be applied without further dilution. Dispense fog at the following flow rates depending upon the speed at which the truck is moving:

Truck Speed Miles Per Hour	Flow Rate Fluid-Ounces per Minute
5	2 to 2.25 fluid oz.
10	4 to 4.5 fluid oz.

Delivery rate and traveling speeds can be varied slightly so long as the basic objective of .002 to .0025 pounds actual pyrethrins per acre is maintained. Use a swath width of 300 feet for acreage calculations. To control mosquito larvae, dilute at the rate of 9 ounces per 50 gallons of oil and apply at the rate of 20 to 25 gallons per acre. Apply as a coarse wetting spray to the border or on shallow water of wet lands, swamps, and marshes where mosquito larvae are known to breed.

TEMPORARY REDUCTION OF ANNOYANCE from flies, mosquitoes and small flying moths outdoors. The aforementioned application for outdoor ground application will afford temporary reduction of annoyance from these pests in public gathering places (drive-in restaurants, drive-in theaters, golf courses, municipalities, parks, play grounds and recreational areas). Direct application into tall grass, shrubbery and around lawns where these pests may hover or rest. Apply while air is still. Avoid wetting foliage. Application should be made prior to attendance. Repeat as necessary. In additional outdoor areas (corrals, feed lots, swine lots, and zoos). Cover water, drinking fountains, and animal feed before use. Fill area with mist directing application into tall grass, shrubbery and around lawns where these pests may hover or rest. Apply while air is still. Avoid wetting foliage. In zoos, avoid exposure of reptiles to the product. Repeat as necessary.

FOR USE ON ANIMALS: To protect beef and dairy cattle, horses and dogs from horn flies, house flies, mosquitoes and gnats, dilute 1 part of Cardinal 25-5 insecticide plus 49 parts oil (refined kerosene) and mix well and apply a light mist sufficient to wet the tips of the hair. To control stable flies, horse flies, and deer flies on beef and dairy cattle and horses, apply 2 ounces per adult animal, sufficient to wet the hair but not to soak the hide. Repeat treatment once or twice daily or at intervals to give continued protection. To control the mobile stages of blood sucking lice on beef and dairy cattle, apply the spray to thoroughly wet the hair. Use 2 ounces or less per animal and repeat every 2 to 3 weeks as required.

STATEMENT OF WARRANTY AND LIABILITY Seller warrants that this product complies with the specifications expressed in this label. SELLER MAKES NO OTHER WARRANTIES; AND DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE INTENDED PURPOSE. Seller's liability for default, breach or failure under this label shall be limited to the amount of the purchase price. Seller shall have no liability for consequential damages.

Sept. 1996