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

Dear Mr. Iverson:

Subject: Amended Product Labeling Cardinal 5-1 Food Plant Insecticide EPA Registration Number 5440-113 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. Indoor Use as a Space Spray, Diluted
  - c. Surface Spray Application

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

# CARDINAL 5-1 FOOD PLANT INSECTICIDE

# FOR TRAINED PERSONNEL ONLY

TO BE APPLIED ONLY BY OR UNDER THE SUPERVISION OF PEST CONTROL OPERATORS, MEMBERS OF MOSQUITO ABATEMENT DISTRICTS OR PUBLIC HEALTH ORGANIZATIONS AND OTHER TRAINED PERSONNEL RESPONSIBLE FOR INSECT CONTROL PROGRAMS. 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 AEROSOL GENERATORS (ULV) AS WELL AS CONVENTIONAL FOGGING OR SPRAYING EQUIPMENT.

ACTIVE INGREDIENTS
Pyrethrins
Pingaranti Butarida, Tocho

Piperonyl Butoxide, Technical\*
INERT INGREDIENTS\*\*
TOTAL

5.0% <u>94.0%</u> 100.0%

 Equivalent to 4.0 % (butylcarbityl) (6-propylpiperonyl) Ether and 1.0% related compounds.

\*\* Contains Petroleum Distillates.

# 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 imitation 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. 5440-113

ACCEPTED with COMMENTS in EPA Letter Dated

OCT 2 | 1996

Under the Endowl Intermolds, Fungicids, and Much 466 is Act as amended, for the provided registered under EPA Reg. No.

5440-113

# 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, BAKERIES, AND OTHER FOOD PROCESSING PLANTS, BELL 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 takes, 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, tocked 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, of 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. Plastle: 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

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CARDINAL FOOD PLANT 5-1 INSECTICIDE should be used as directed for control of the following insects:

Angoumois Grain Moth

Hom Flies Homels

Ants Boxelder Bugs

Horse Flies

Cadelles Cheese Mites House Flies Indian Meal Moths

Cheese Skippers Cigarette Beetles Lice

Clover Mites Cockroaches (German) Mediterranean Flour Moths Mosquitoes Mushroom Flies Red Flour Beetles

Confused Flour Beetles Crickets Dark Mealworms

Rice Weevils-

Deer Flies **Dried Fruit Beetles**  Saw Toothed Grain Neetles Silverfish Small Flying Moths

**Drug Store Beetles** Earwigs Fruit Flies Fungus Gnals Gnals

Spiders Spider Beetles Stable Flies Tobacco Moths Wasps

Grain Mites **Granary Weevils**  Yellow Mealworms

INDOOR USE AREAS: Bakeries, Beverage Plants, Canneries, Cattle Barns, Dried Food Products in Storage or Processing, Flour Mills, Food Processing Plants, Grain Elevators, Granáries, Homes, Horse Barns, Hospitals, Hotels, Industrial Installations, Meat Packing Plants, Motels, Office Buildings, Poultry Houses, Railroad Cars, Restaurants, Schools, Ships Holds, Stored Food in Multi-Walled Paper or Cloth Bags, Supermarkets, Swine Houses, Truck, Trailers, Warehouses, Zoos.

OUTDOOR USE AREAS: Corrals, Drive-In Restaurants, Drive-In Theaters, Feedlots, Golf Courses, Parks, Playgrounds, Recreational Areas, Swine Yards, Urban Areas, Zoos,

INDOOR USE, UNDILUTED: The use of this product in food processing or food handling establishments (bakeries, beverage plants, canneries, food processing plants, hospitals, hotels, industrial installations, meat packing plants, restaurants, schools, supermarkets and warehouses) should be confined to 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

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

SPACE AND CONTACT SPRAY APPLICATION. To control accessible adult stages of: Ants, Boxelder Bugs, Cheese Miles, Cheese Skippers, Clover Mites, Cockroaches (German), Crickets, Earwigs, Fruit Flies, Hornets, Mosquitoes, Silverfish, Small Flying Moths, Wasps. And the following common stored product pests: Angoumois Grain Moths, Cadelles, Cigarette Beetles, Confused Flour Beetles, Dark Mealworms, Grain Mites, Granary Weevils, Indian Meal Moths, Mediterranean Flour Moths, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Spider Beetles, Tobacco Moths, Yellow Mealworms.

Close doors and windows and shut off ventilating systems. Cover or remove any food and food processing equipment before application. Do not apply while food processing is underway. Use a mechanical aerosol generator or a fogger adjusted to deliver aerosol droplets (30 microns or less). Direct the spray first into all cracks and crevices. behind all equipment, cupboards, obstructions or dark harborage areas to provide maximum penetration and impingement on the insects. Then treat as a space spray, directing the spray towards the ceiling and upper corners of the area and behind any obstructions. Apply at a rate of 1 ounce per 1000 cubic feet of space. Keep area closed for at least one hour. Vacate treated area and ventilate before reoccupying. After space spraying, all equipment, benches, shelving, etc. where food will be handled must be washed with an effective cleaning compound and rinsed with potable water. Repeat treatment

TREATMENT OF STORED FOOD AREAS: Foods in multi-walled bags or in cloth bags stored in warehouses, storage rooms, flour milis, grain elevators and granaries. To control accessible adult stages of: Angoumois Grain Moth, Cadelles, Cheese Mites, Cheese Skippers, Cigarette Beetles, Cockroaches (German), Confused Flour Beetles, Dark Mealworms, Grain Mites, Granary Weevils, Indian Meal Moths, Mediterranean Flour Moths, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Yellow Mealworms.

Infested stored products should be destroyed, furnigated or treated by other effective methods using an approved product intended for this purpose. As noted above, disperse Cardinal Food Plant 5-1 Insecticide first by directing spray into cracks and crevices, comers, pallets, and around stacks of packaged goods—hitting as many insects as possible and then apply as a space spray at dosage of 5 ounces per 1000 cubic feet of room space. Repeat application as necessary for insect control. Leave the treated areas closed for one hour. Do not remain in treated area and ventilate before reentry.

INDOOR USE, DILUTED SPACE SPRAY APPLICATION. For use in mechanical fogging or spraying equipment. To control accessible stages of: Files, Fruit Files, Gnats, Mosquitoes, Small Flying Moths. Do not apply directly to food. Follow instructions under Precautionary Statements". Close room and shut off air conditioning or ventilating equipment. Mix 13 ounces of Cardinal Food Plant 5-1 insecticide with sufficient oil to equal 1 gallon of diluted spray. 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 if reinfestation occurs.

ANIMAL QUARTER USE (Cattle barns, horse barns, poultry houses, swine houses, zoos). As a space spray, diluted for use in conventional mechanical fogging or spraying equipment. To control Files, Gnals, Mosquiloes, Small Flying Moths: Mix 13 ounces of Cardinal Food Plant 5-1 Insecticide with sufficient oil to equal 1 gallon of diluted spray. Apply at the rate of 2 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. Vacale treated area and ventilate before reoccupying. Repeat treatment if reinfestation occurs.

SURFACE SPRAY APPLICATION. To control accessible stages of: Ants, Boxelder Bugs, Clover Mites, Cockroaches (German), Crickets, Drugstore Beeltes, Earwigs, Lice, Silverfish, Spider Beeltes: Mix 13 ounces of Cardinal Food Plant 5-1 Insecticide with sufficient oid to equal 1 gallon of diluted spray. Do not apply directly to food. Follow instructions for treating food handling facilities under "Precautionary Statements". Apply as a coarse droplet spray using approximately 1 gallon to 750 square feet of space. 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 unbading, 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 ships' holds before loading. Thoroughly treat walls and floors and spray each layer of cartons or containers lightly as stacked.

TREATMENT OF STORED GRAIN. To control accessible adult stages of: Angoumois Grain Moth and Indian Meal Moth: 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 continue until early fall. In severe infestations, break up webbing with a rake before spraying and make a second application in two weeks.

TREATMENT OF FLYING INSECTS' RESTING PLACES. To aid in the control of: Gnats, Mosquitoes, Skippers, Wasps. Treat walls, ceilings, moldings, screens, door frames, window frames, beams, light cords and similar resting places with the above dilution of Cardinal Food Plant 5-1 Insecticide.

OUTDOOR APPLICATION, UNDILUTED. To control: Gnats, Mosquitoes, Small Flying Moths. For best results, use truck mounted equipment and apply when there is a light breeze of approximately 5 miles per hour. Spray from the windward side so the fog will be carried across line area to be treated. Treat shrubbery and vegetation where mosquitoes may rest, particularly stagnant pools, marshy areas, shore lines and ponds. However, application of this undiluted product to any body of water is prohibited. Repeat treatment as required. Disperse Cardinal Food Plant 5-1 Insecticide at the following rates:

Truck Speed Mikes Per Hour Flow Rate Fluid Ounces per Minute
5 12 - 15 fluid oz.
10 24-30 fluid oz.

Delivery rates and traveling speeds can be varied slightly so long as the basic objective of 0.002 to 0.0025 pounds actual pyrethrins per acre is maintained. Use a swath width of 300 feet for acreage calculations.

FOR TEMPORARY REDUCTION OF ANNOYANCE from Flies, Gnats, Mosquitoes.

In drive-in restaurants, drive-in theaters, golf courses, urban areas, parks, playgrounds and other recreational areas: Direct the spray into tail grass, shrubbery and around lawns where these pests may hover or rest. Apply while area is still and avoid welting foliage. Application should be made prior to use. Repeat as necessary.

In the treatment of corrals, feedlots, swine lots and zoos: Cover any exposed water, drinking fountains and animal feed before application. Fill the area with mist and clirect the spray into tail grass, shrubbery and around lawn where the above pests may hover or rest. Apply white the air is still and avoid wetting foliage. In zoos, avoid exposure of reptiles to the product. Repeat as necessary.

OUTDOOR APPLICATION, DILUTED TO CONTROL MOSQUITO LARVAE: Mix 48 ounces of Cardinal Food Plant 5-1 Insecticide with sufficient oil to equal 50 gallons of diluted spray. Apply 20 to 25 gallons per acre. Apply as a coarse welting spray to the border or on the shallow water of wellands, swamps and marshes known to be infested with mosquito larvae.

#### FOR USE ON ANIMALS-

To protect again Gnats, Horn Files, House Files, Mosquitoes: Mix 13 ounces of Cardinal Food Plant 5-1 Insecticide with sufficient oil to equal 1 gallon of diluted spray. Apply light mist sufficient to wet the tips of the hair on beef and dairy cattle, horses and dogs.

To protect against Deer Fies, Horse Flies, Stable Fies: Apply the above dilution at two ounces per adult beef cattle, dairy cattle and horses to sufficiently wet the hair but not soak the hide. Repeat this application once or twice daily or as needed to give continued protection.

To control the mobile stages of blood sucking lice on beef and dairy cattle: Apply the diluted spray to thoroughly wet 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 fability for consequential damages.

Sept. 1996