

CARDINAL Professional Products



P. O. Box 782
Hollister, CA 95024

PROTECTING
THE FOODS
THAT FEED
THE NATION

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

- Harmful if swallowed, inhaled or absorbed through the skin.
- Avoid breathing vapors or spray mist. Wear a pesticide respirator jointly approved by the Mining Enforcement and Safety Administration and the National Institute for Occupational Safety and Health under the provisions of 30 CFR Part II.
- Avoid contact with skin, eyes or clothing. Wash with soap and warm water after handling. Remove contaminated clothing and wash before reuse.
- Avoid contamination of food or feedstuffs.
- Remove pets, birds, and cover fish aquariums before spraying.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds and other wildlife. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters. 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 OR CHEMICAL HAZARDS

- Do not use or store near heat or open flame.
- Do not use this product in or on electrical equipment due to the possibility of shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
READ ALL DIRECTIONS COMPLETELY BEFORE USE.

IN HOSPITALS: Patients should be removed from room prior to treatment. Rooms should be ventilated for two hours after spraying. Do not return patients to room until after ventilation.

GENERAL: This concentrate is designed for use undiluted in mechanical sprayers which give particles of aerosol size. It can be diluted with refined kerosenes which meet Food Additive Regulation as defined by 21 CFR §172.884, and applied in fogging equipment that gives larger than aerosol particle size. It can also be diluted with the oil specified above and applied as a contact spray to kill crawling insects shown later on this label.

Do not apply directly to food. Do not apply space spray while food processing is underway. Cover or remove all food processing surfaces. Thoroughly wash all food processing surfaces before reuse. After spraying in bakeries, meat packing plants, food processing plants, etc., all benches, shelving, equipment, etc. where food will be handled must be washed with an effective cleaning compound followed by a potable water rinse prior to use.

NOTE: When using oil as the diluent, an odorless light petroleum hydrocarbon as defined by 21 CFR §172.884 should be used for all food area and food related applications. Additionally, when diluted and used according to label directions, this spray will meet specifications for use under USDA Meat, Poultry, Shell Egg Grading, and Egg Products Inspection Programs.

Cardinal 1-2-3 Insecticide

FOR USE IN HOUSEHOLD AND FOOD PROCESSING PLANTS, RESTAURANTS, INDUSTRIAL BUILDINGS: SCHOOLS, WAREHOUSES, OFFICES, THEATRES, GARAGES, HOTELS, MOTELS, HOSPITALS AND KENNELS.

- For use indoors or outdoors as a ULV, space, area, contact spray or thermal fog for listed insects in areas specified on the label.
- Effective and fast acting.
- Provides flusing action and quick knockdown for indoor and outdoor use as a ULV, space, area or contact spray.
- Authorized by USDA for use in edible product areas of official establishments operating under the Meat, Poultry, Shell Egg Grading and Egg Products Inspection Program.

ACTIVE INGREDIENTS:

Pyrethrins	1.00%
Piperonyl butoxide, Technical*	2.00%
N-Octyl bicycloheplene dicarboximide**	3.00%
OTHER INGREDIENTS***	94.00%
	100.00%

* Equivalent to 1.60% (butylcarbityl) (6-propylpiperonyl) ether and 0.40% related compounds

**MGK²⁶⁴, Insecticide Synergist

***Contains Petroleum Distillate, xylene, or xylene range aromatic solvent
PYROCIDIE, MGK² - Registered trademarks of McLaughlin Gormley King Co.

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

IF SWALLOWED: Call a physician or Poison Control Center immediately. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

IF IN EYES: Flush with plenty of water. Get medical attention if irritation persists.

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

IF INHALED: Remove victim to fresh air. Apply artificial respiration, preferably mouth-to-mouth. Get medical attention.

See side panel for additional precautionary statements.

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EPA Reg. No. 8536-38

EPA Est. 48498-CA-01

Net Contents:.....LBS.

September 13, 2001

- **INDOOR AREAS** for use in and around, but not limited to [such as]: Animal Areas & Quarters, Animal Shelters, Animal Control Centers, Apartments, Arcades, Attics, Auditoriums, Bakeries, Beverage Plants, Bars, Basements, Bathrooms, Boats, Bottling Plants, Breweries, Brewery Warehouses, Buildings, Buses, Cabins, Cabinets, Cafeterias, Campers, Canneries, Churches, City Missions, Circus Tents, Closets, Club Houses, Commercial Buildings, Communication Centers, Condominiums, Concession Stands, Court Houses, Crawl Spaces, Crematoriums, Day Care Centers, Delicatessens, Department Stores, Diners, Dog Houses, Drug Stores, Dumpsters, Dwellings, Egg Processing Plants, Factories, Freight Containers, Fruit Packing Sheds, Funeral Parlors, Garbage Bins, Garbage Cans, Garbage Compactors, Garbage Trucks, Gas Stations, Grain Elevators, Grain Harvesting & Handling Equipment, Garages, Grain Mills, Granaries, Grocery Stores, Homes, Horse Stables & Barns, Horse Trailers, Hospices, Hospitals, Hotels, Indoor Eating Establishments, Industrial Installations, Institutional Dining Areas, Institutions, Jails, Kennels, Laboratories, Laundromats, Lavatories, Libraries, Liquor Stores, Locker Rooms, Marinas, Mausoleums, Meat Packing Plants, Mess Halls, Mini-Storages, Mobile Canteens, Mobile Homes, Morgues, Mortuaries, Motels, Movie Theaters, Museums, Nursing Homes, Office Buildings, Other Public Buildings, Parking Garages, Pool Halls, Planes, Prisons, Public Storage, Railroad Cars, Recreational Vehicles, Research Animal Quarters, Restaurants, Retail Stores, Rice Mills, Schools, Ships, Ship Holds, Smoke Shops, Sports Stadiums, Stables, Storage Bins (areas), Stored Food in Multi-Walled Paper or Cloth Bags, Stores, Supermarkets, Taverns, Textile Mills & Warehouses, Theaters, Tobacco Factories, Tobacco Warehouses, Tool Sheds, Trains, Transportation Equipment, Trucks, Truck Trailers, Tunnels, Utilities, Utility Rooms, False Ceilings, Vending Machines, Veterinary Hospitals, Wall & Equipment Voids, Warehouses, Washrooms, Wholesale Stores, Wine Cellars, Wineries and Zoos.

- **FOR THE CONTROL OF INSECTS** including, but not limited to [such as]: Almond Moths, Angoumois Grain Moths, Ants, Black Fly, Boxelder Bugs, Brown Dog Ticks, Cadelles, Carpet Beetles, Cereal Beetles, Cheese Mites, Cheese Skippers, Chocolate Moths, Cigarette Beetles, Clothes Moths, Clover Mites, Cockroaches, Coffee Bean Weevils, Confused Flour Beetles, Crickets, Dark Mealworms, Darkling Beetles, Deer Flies, Dermestid Beetles, Dried Fruit Beetle, Drugstore Beetles, Earwigs, Face Fly, Firebrat, Flat Grain Beetles, Fleas, Flies, Fruit Flies, Gnats, Grain Mites, Granary Weevils, Horn Flies, Hornets, Horseflies, Indian Meal Moths, Khapra Beetles, Lesser Grain Borers, Lesser House Fly, Mediterranean Flour Moths, Merchant Grain Beetle, Midges, Midge Moths, Millipedes, Mosquitoes, Flying Moths, Palmetto Bugs, Pillbugs, Red Flour Beetles, Rice Flour Beetles, Rusty Grain Beetles, Sawtoothed Grain Beetle, Silverfish, Skipper Fly, Spiders, Spider Beetles, Stable Flies, Sowbugs, Ticks, Ticks that may carry and transmit Lyme Disease, Tobacco Moths, Warehouse Beetles, Wasps, Waterbugs, Yellow Jackets, Yellow Mealworms.

INDOOR USE - UNDILUTED

- **FOR USE IN HOMES, RESTAURANTS, FOOD PROCESSING PLANTS AND OTHER INDUSTRIAL AREAS:** ULV AND SPACE SPRAY: Use in aerosol generators to kill exposed accessible stages of: Flies (including Fruit Flies), Mosquitoes, Small Flying Moths, Fleas, 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 Meal Worms, Dark Meal Worms, Grain Mites, Cadelles and Red Flour Beetles: Remove or cover exposed food and food handling surfaces. Close room and shut off all air conditioning or ventilating equipment. Apply at the rate of 1/2 fluid ounce undiluted concentrate per 1000 cubic feet of space. Direct spray toward upper corners of room and ceiling. Leave room closed for 1/2 hour and ventilate thoroughly before re-entry. Do not apply this undiluted spray in facilities operating under USDA Meat, Poultry, Shell Egg Grading, and Egg Products Inspection Programs.

- **CONTACT AND SPACE SPRAY:** To kill Cockroaches, Silverfish, Earwigs, Ants, Spiders, use a mechanical aerosol generator or a fogger. Direct the spray first into all cracks and crevices, behind all equipment, cupboards, obstructions or dark harborage areas, walls, floors, underneath sinks, behind pipes and in all places that harbor insects to provide maximum penetration and impingement on the insects. Contact as many insects as possible. Do not allow spray to contact stored food. Then treat as a space spray. Apply at the rate of 3 fluid ounces per 1000 cubic feet of space. Vacate treated area and leave the room closed for 1/2 hour. Ventilate thoroughly before re-entry. Do not apply this undiluted spray in facilities operating under USDA Meat, Poultry, Shell Egg Grading, and Egg Products Inspection Programs.

NOTE: If there is a need to treat such areas as conduits, motor housings, junction and switch boxes or other electrical equipment, turn off electrical equipment prior to

application. After application, allow time for oil to dissipate before starting motors or placing switches in the "ON" position.

- **TREATMENT OF STORED FOOD AREAS:** Foods in multi-walled bags, cloth bags or other packaging stored in such areas as listed areas for the control of accessible adult stages of, but not limited to: Almond Moths, Angoumois Grain Moths, Ants, Cadelles, Cereal Beetles, Cheese Mites, Cheese Skippers, Chocolate Moths, Cigarette Beetles, Cockroaches, Confused Flour Beetles, Crickets, Dark Mealworms, Drugstore Beetles, Earwigs, Firebrats, Flies, Fruit Flies, Fungus Gnats, Grain Mites, Granary Weevils, Hide Beetles, Indian Meal Moths, Mediterranean Flour Moths, Mosquitoes, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Silverfish, Small Flying Moths, Spiders, Spider Beetles, Yellow Mealworms, Dried Fruit Beetles, Warehouse Beetles, Rusty Grain Beetles, Lesser Grain Beetles, Coffee Bean Weevils, Khapra Beetle and other listed pests. Infested stored products should be destroyed, fumigated or treated by other effective methods using an approved product intended for this purpose. As noted above, disperse first by directing spray into cracks and crevices, corners, pallets and around stacks of packaged goods hitting as many insects as possible and then apply as a space spray at a dosage of 1.5 ounces per 1000 cubic feet of room space. Repeat application as necessary for insect control. Do not remain in treated area and ventilate before re-entry.

- **ON PEANUTS, NUTS, BEANS (INCLUDING COCOA), SEEDS AND COPRA IN BAGS OR OTHER PACKAGING:** For the control of accessible stages of: Almond Moths, Angoumois Grain Moths, Ants, Cadelles, Cereal Beetles, Cheese Mites, Cheese Skippers, Chocolate Moths, Cigarette Beetles, Cockroaches, Confused Flour Beetles, Crickets, Dark Mealworms, Drugstore Beetles, Earwigs, Firebrats, Flies, Fruit Flies, Fungus Gnats, Grain Mites, Granary Weevils, Hide Beetles, Indian Meal Moths, Mediterranean Flour Moths, Mosquitoes, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Silverfish, Small Flying Moths, Spiders, Spider Beetles, Yellow Mealworms, Dried Fruit Beetles, Warehouse Beetles, Rusty Grain Beetles, Lesser Grain Beetles, Coffee Bean Weevils, Khapra Beetles and other listed insects, apply to the surface of stored or bagged products. Also spray walls, floors and other surfaces, storage and handling areas thoroughly, being especially careful to treat cracks, crevices and similar hiding places. Then apply as a space spray at the rate of 1.5 ounce per 1000 cubic feet of space by directing the spray toward the ceiling and upper corners of the area and behind any obstructions.

CONTACT AND SPACE SPRAY - UNDILUTED - TO KILL COCKROACHES: Using an appropriate ULV spraying device, inject the aerosol spray directly into cracks and crevices to completely fill wall, equipment, and other small structural void areas. Leave room ventilation or air conditioning equipment on during application. Except in hospitals, as noted above, the room can be reentered immediately after applications are complete.

INDOOR USE - DILUTED

- **SPACE SPRAY:** For use in mechanical fogging, thermal fogging or spraying equipment to control accessible stages of Almond Moths, Angoumois Grain Moths, Ants, Cadelles, Cereal Beetles, Cheese Mites, Cheese Skippers, Chocolate Moths, Cigarette Beetles, Cockroaches, Confused Flour Beetles, Crickets, Dark Mealworms, Drugstore Beetles, Earwigs, Firebrats, Flies, Fruit Flies, Fungus Gnats, Grain Mites, Granary Weevils, Hide Beetles, Indian Meal Moths, Mediterranean Flour Moths, Mosquitoes, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Silverfish, Small Flying Moths, Spiders, Spider Beetles, Yellow Mealworms, Dried Fruit Beetles, Warehouse Beetles, Rusty Grain Beetles, Lesser Grain Beetles, Coffee Bean Weevils and Khapra Beetles. Remove or cover exposed food and cover food handling surfaces in edible product areas of food handling establishments. Close room and shut off all air conditioning or ventilating equipment. Dilute concentrate with a white mineral oil conforming to 21 CFR §121.2589(b) or an odorless light petroleum hydrocarbon conforming to 21 CFR §121.1182 at the rate of 1 part concentrate to 9 parts oil and mix well. Apply at the rate of 50 fluid ounces per 1000 cubic feet of space, filling the room with mist. Vacate treated area and ventilate before re-entry. Repeat treatment as necessary.

- **SURFACE SPRAY:** To control accessible stages of: Ants, Drugstore Beetles, Earwigs, Cockroaches, Silverfish, Beetles, Boxelder Bugs, Clover Mites, Crickets and other listed insects, dilute 1 part concentrate plus 9 parts suitable diluent, mix well and apply as a coarse wetting spray using approximately 1 gallon of spray mixture per 1000 square feet of surface. To ensure maximum control of listed crawling insects, spray thoroughly into all cracks, molding, crevices, walls, floors and other surfaces, storage and handling areas. Particular attention should be paid to areas where moisture collects such as drains, sinks and water pipes, around the base of heavy machinery and equipment contacting as many insects as possible. ANTS: Spray directly into nests, along trails and directly on all ants observed. Repeat as necessary.

- **FOR USE IN TRANSIT PROTECTION:** To control accessible stages of listed insects, clean and spray truck beds, boxcars, ship holds and other listed transit equipment before loading. Thoroughly treat walls and floors. Spray each layer of cartons or containers lightly as stacked. Apply diluted spray at the rate of 1 gallon per 1000 square feet. To control Indian Meal Worms, and Angoumois Grain Moths 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 before spraying and make a second application in two weeks.

- **CONTACT SPRAY - DILUTED** for use with sprayers that give large, wetting spray particles to kill Cockroaches and Accessible Stages of Granary Insects: Cadelles, Confused Flour Beetles, Grain Mites, Granary Weevils, Meal Moth Larvae and Adults, Red Flour Beetles, Rice Weevils and Saw-Toothed Grain Beetles: Cover or remove exposed food and close room as described above. Dilute concentrate with oil at the rate of 1 part concentrate plus 9 parts of oil or 1.5 ounces per gallon and mix well. Spray outside walls of grain bins, flooring, about base of milling machinery, walls and baseboards, areas behind cabinets, around pipes and other insect harborage using 1 gallon spray per 1000 square feet of space. Force spray into all cracks and crevices. Repeat applications as necessary.
- **DRIED FRUIT PRODUCTS** in storage or being processed, for control of Confused Flour Beetles, Dried Fruit Beetles, Indian Meal Moths and Saw-Toothed Grain Beetles: Remove and destroy infested products. Dilute concentrate with oil at the rate of 1 part concentrate plus 9 parts oil or 1.5 ounces per gallon and mix well. Disperse this product as a fine mist in the air above the trays and shelves. Do not apply to fruit directly. Use one 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 the area before re-entry. Sweep up and destroy fallen insects.

- **STORED FOOD:** (stored in multi-walled bags or cloth bags) in flour mills, grain elevators, granaries, storage rooms, warehouses for control of Angoumois Grain Moths, Cadelles, Cheese Mites, Cheese Skippers, Cigarette Beetles, Confused Flour Beetles, Dark Meal Worms, Grain Mites, Granary Weevils, Indian Meal Moths, Mediterranean Flour Moths, Red Flour Beetles, Rice Weevils, Saw-Toothed Grain Beetles, Yellow Meal Worms: Remove and destroy infested products. Dilute concentrate with oil at the rate of 1 part concentrate plus 9 parts oil or 1.5 ounces per gallon and mix well. Disperse this product first by directing spray into corners, under pallets, and around stacks of packaged foods hitting as many insects accessible and then treat 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 space. Do not remain in treated areas and ventilate the area before re-entry. This application will kill accessible, exposed stages of those stored product pests listed above. Sweep up and destroy fallen insects.

- **ZOOS:** As a space spray diluted for use in conventional mechanical fogging equipment to kill Flies, Gnats, Mosquitoes, Small Flying Moths: Dilute 1 part concentrate plus 9 parts oil (refined kerosene) and mix well. Apply at a 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.

- **FOR USE IN FEDERALLY INSPECTED MEAT AND POULTRY PLANTS:** Dilute one part concentrate with 3 parts base oil (refined kerosene) and use with a ULV spraying device at the rate of one ounce per 1000 cubic feet of room space. Apply this spray into all cracks and crevices in woodwork, walls, floors, underneath sinks, behind pipes and in all places where these insects shelter. Contact as many insects as possible. Repeat as necessary for control of exposed or accessible stages of Ants, Earwigs, Flies, Fruit Flies, Gnats, Mosquitoes, Silverfish, Small Flying Moths, Spiders and Waterbugs. Before spraying, exposed food products and packaging materials must be covered or removed. After spraying, equipment and utensils must be washed with an effective cleaning compound and rinsed with potable water prior to use. Use as a space spray only when plant is not in operation.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.
STORAGE: Store in a cool, dry place. Keep container closed.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other approved State and Local procedures.