



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 23, 2017

Steve Ditto
U.S. Regulatory Affairs Manager
MGK Co.
8810 Tenth Ave North
Minneapolis, MN 55427

Subject: Label Amendment – lowering dilution volume and revising rate errors
Product Name: MGK Formula 7480
EPA Registration Number: 1021-2616
Application Date: 10/26/2016
Decision Number: 523251

Dear Mr. Ditto:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

Page 2 of 2
EPA Reg. No. 1021-2616
Decision No. 523251

with FIFRA section 6. If you have any questions, please contact Autumn Metzger at 703-305-5314, or Metzger.autumn@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kable Bo Davis', enclosed within a large, hand-drawn oval.

Kable Bo Davis, Product Manager 3
Invertebrate and Vertebrate Branch 1
Registration Division (7505P)
Office of Pesticide Programs

Enclosure



MGK® Formula 7480

[ABN: Tersus® Insecticide; Tersus® PR0]

GROUP	3A	INSECTICIDE
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[] brackets indicate optional wording.

[For use on growing crops] [Flushing Action] [Quick Knockdown]

[Effective] [Fast Acting]

[Can be used on Day of Harvest]

[One Gallon Treats up to 28 acres]

[Provides rapid knockdown & kill of listed plant pests]

[For Use on over 200 fruits and vegetables]

[Kills more than 100 insects]

[Flushes insects from hiding]

[Low Odor] [Non-corrosive to spray equipment]

[Flushes listed insects from hiding]

[Quick Knockdown]

[Effective] [Fast Acting]

[Flushes listed insects and mites from hiding]

[Kills Key listed Livestock pests]

[Low Odor]

[Non-corrosive to spray equipment]

Contains pyrethrins

[Made from/ extracted from /originating from flowers]

[An] Extract from Chrysanthemum flowers

Botanically-derived

Made from flowers, made to kill [listed insects]

Can be sprayed at any season of the year

[FOR USE ON NON-FOOD ORNAMENTALS (TREES, SHRUBS, AND BEDDING PLANTS)]

[FOR USE IN RESIDENTIAL GARDENS]

For use on ornamentals, and in greenhouses

For use on growing crops, ornamentals, stored products, livestock and to kill fruit flies on harvested fruits and vegetables

Multi-purpose Insecticide

Used alone as a cleanup spray or a pre-harvest spray

Quick Knockdown and Kill

[For Use in Federally Inspected Meat and Poultry Plants]

[Kills Stored Product Pests]

[Kills house flies]

[Kills listed flies]

[Kills stable flies]

[Kills and repels listed flies]

[Kills listed Crawling Insects]

[Kills Ants, excluding fire and pharaoh]

[Kills fleas]

[Kills darkling beetles]

[For use on listed animals]

[For use on livestock and poultry]

[For use on poultry]

[Space sprays permitted when animals are present]

[Spray permitted when animals are present]

[For use on livestock, poultry and in poultry houses]

[On Livestock]

[For use in food handling, processing and storage areas]

[For Indoor and Outdoor production]

[For use in Restaurants]

[Kills listed Stored Products Pests]

[Contains pyrethrins - a botanical insecticide derived from chrysanthemums]

[For use in Barns, Dairies and Poultry Houses]

ACTIVE INGREDIENT:

Pyrethrins	5.00%
OTHER INGREDIENTS	95.00%
	100.00%

This product contains 0.392lbs. Pyrethrins per gallon.

MGK® is a registered trademark of McLaughlin Gormley King Company. All other marks are property of their respective holders.

KEEP OUT OF REACH OF CHILDREN CAUTION PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-740-8712 for emergency medical treatment information.	

Manufactured by
MGK
8810 Tenth Avenue North
Minneapolis, MN 55427

ACCEPTED
05/23/2017
Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 1021-2616

Net Contents: 1 Quart [½ Gallon] [1 Gallon] [55 Gallons] [250 Gallons.]

PRECAUTIONARY STATEMENTSHAZARDS TO HUMANS AND DOMESTIC ANIMALS**CAUTION**

Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators, and other handlers must wear the following:

- long-sleeved shirt,
- long pants,
- shoes and socks, and
- chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton

In addition to the above PPE, applicators using handheld foggers in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with:

- a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or
- a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or
- a cartridge or canister with any R, P or HE filter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

When handlers use aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR 170.240 (d) (4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. This product has a potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging in the treatment area. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR, Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas (that is permitted under Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:

Long-sleeved shirt and long pants;

Chemical-resistant gloves, such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton;

Shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR, Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter until vapors, mists, and aerosols have dispersed, and the treated area has been thoroughly ventilated.

Do not enter or allow others to enter until sprays have dried.

INDOOR AREAS FOR USE IN AND AROUND:

Aircraft (not aircraft cabins), Animal Areas and Quarters, Animal Control Centers, Animal Shelters, Apartments, Arcades, Assisted Living Facilities, Attics, Auditoriums, Bakeries, Barns, Bars, Basements, Bathrooms, Beverage Plants, Boats, Bottling Plants, Breweries, Brewery Warehouses, Buildings, Buses, Cabinets, Cabins, Cafeterias, Campers, Canneries, Casinos, Cattle Barns, Cattle Stalls, Churches, Circus Tents, City Missions, Classrooms, Closets, Club Houses, Coffee Shops, Colleges, Commercial Buildings, Communication Centers, Concession Stands, Condominiums, Court Houses, Crawl Spaces, Crematoriums, Dairies, Dairy Stalls and holding areas, Day Care Centers, Delicatessens, Department Stores, Diners, Dog Houses, Storage or Processing Areas that contain Dried Fruit Products, Drugstores, Dumpsters, Dwellings, Egg Processing Plants, Factories, False-Ceilings, Food Processing Plants, Food Storage Areas, Freight containers, Frozen food plants, Fruit Packing Sheds, Funeral parlors, Garages, Garbage Bins, Garbage Cans, Garbage Compactors, Garbage Trucks, Gas Stations, Grain Elevators, Grain Harvesting and Handling Equipment, Grain Mills, Granaries, Greenhouses, Grocery Stores, Health Care Facilities, Herb drying and processing facilities, Herb warehouses, Homes, Horse Stables and Barns, Horse Trailers, Hospices, Hospitals, Hotels, Indoor Eating Establishments, Industrial Installations, Institution Dining Areas, Institutions, Jails, Kennels, Laboratories, Laundromats, Lavatories, Libraries, Liquor Stores, Livestock Barns, Livestock Hauling Equipment, Loafing Sheds, Locker Rooms, Mausoleums, Meat Packing Plants, Mess Halls, Milk Rooms, Milking Parlors, Mills, Mini Storage, Mobile Canteens, Mobile Homes, Morgues, Mortuaries, Motels, Movie Theaters, Museums, Mushroom Processing Areas, Nursing Homes, Office buildings, Other Public Buildings, Parking Garages, Passenger Railroad Cars, Peanut Warehouses, Pool Halls, Poultry Houses, Poultry Plants, Pounds, Prisons, Public Storages, Rabbit Processing Plants, Railroad Cars, Recreational Vehicles, Research Animal Quarters, Restaurants, Retail Stores, Rice Mills, Schools, Seed production facilities, Seed warehouses, Ship Holds, Ships, Smoke Shops, Spice plants, Spice production facilities, Sports Stadiums, Stables, Storage Bins (areas), Stores, Supermarkets, Swine Houses, Taverns, Textile Mills and Warehouses, Theaters, Tobacco Factories, Tobacco Warehouses, Tool Sheds, Trains, Transportation Equipment, Truck Trailers, Trucks, Tunnels, Universities, USDA Inspected Facilities, Utilities, Utility Rooms, Vending Machines, Veterinary Hospitals, Wall and Equipment voids, Warehouses, Washrooms, Wheat Mills, Wholesale Stores, Wine Cellars, Wineries and Zoos.

OUTDOOR AREAS for use in and around:

Nurseries

Outdoor Growing Crops

Alleys, Amphitheaters, Amusement parks, Athletic Fields (baseball, football, soccer), Back yards, Balconies, Baseball Fields, Bleachers, Bridges, Campgrounds, Car Washes, Circuses, Construction Sites, Corrals, Courtyards, Curbs, Drive-In Restaurants, Drive-In theaters, Dumpsters, Exterior of Homes and other Buildings, Fair Grounds, Feedlots, Front Yards, Game Fields, Garbage Dumps, Gardens, Gazebos, Golf Courses, Grandstands, Greenhouses, Junkyards, Kennels, Levees, Livestock Pasture, Manure Piles, Nurseries, Outdoor Eating Establishments, Outdoor Growing Crops, Parking Lots, Parks, Patios, Playgrounds, Racetracks, Ranges, Recreation Areas, Rest Areas, Roadsides, Rooftops, Sanitary Sewers (Manholes), School Yards, Sidewalks, Side yards, Stadiums, Tennis Courts, Trees / Shrubs / Flowers and Foliage Plants, Truck Stops, Underpasses, Urban Areas, Utility Rooms Outdoors, Weigh Stations, Wild Animal Parks, Wood Piles, Zoos and other similar areas.

TO KILL THE FOLLOWING INSECTS: Angoumois Grain Moths, Ants (excluding Fire and Pharaoh ants), Aphids, Apple Maggots, Armored Scales, Armyworms, Artichoke Plume Moths, Asparagus Beetles, Bagworms, Bean Beetles, Beet Armyworms, Beetles, Bermudagrass Mirids, Billbugs, Blister Beetles, Blow Flies, Boll Weevils, Boxelder Bugs, Branch and Twig Borers, Cabbage Loopers, Cabbage Maggots, Caddisflies, Cankerworms, Carrot Weevils, Caterpillars, Chalcids, Cheese Skippers, Cherry Fruit Flies, Cigarette Beetles, Clover Mites, Clover Weevils, Cockroaches, Codling Moths, Colorado Potato Beetles, Confused Flour Beetles, Corn Earworms, Crane Flies, Crickets, Cross-striped Cabbageworms, Cucumber Beetles, Cucumber Beetles (12-spotted), Dark Mealworms, Darkling Beetles (lesser mealworms), Diamondback Larvae and Moths, Driedfruit Beetles, Drugstore Beetles, Earwigs, Eastern Tent Caterpillars, Elm Leaf Beetles, Eriophyid Mites, European Pine Tip Moths, Fireworms, Flea Beetles, Fleas, Forest Tent Caterpillars, Fruit Flies, Fruittree Leafrollers, Fruitworms, Fungus Gnats, Garden Symphytan, Glassy-winged Sharpshooters, Gnats, Grain Mites, Grapeleaf Skeletonizers, Grape Leafhoppers, Grape Mealybugs, Grasshoppers, Greenbugs, Green Fruitworms, Green Peach Aphids, Greenhouse Thrips, Gypsy Moths (adults & larvae), Harlequin Bugs, Heliothis spp., Hornworms, House Flies, Imported Cabbageworms, Indian Meal Moths, Japanese Beetles, Katydid, Lace Bugs, Leaf-footed plant bugs, Leafhoppers, Leafminers, Leafrollers, Leaf-tiers, Loopers, Lygus, Maggots, Mealybugs, Mediterranean Flour Moths, Mexican Bean Beetles, Millipedes, Mole crickets, Moths, Mushroom Flies, Navel Orangeworms, Olive Fruit Flies, Onion Maggots, Orange Tortrix, Pacific flatheaded borers, Pear Psyllids, Pepper Weevils, Pink bollworms, Potato Leafhoppers, Potato Tuberworms, Poultry Lice, Proba bugs, Psyllids, Red Flour Beetles, Rice Weevils, Saltmarsh caterpillars, Sawtoothed Grain Beetles, Scales, Sharpshooters, Shore flies, Shothole borers, Silverfish, Skippers, Small Flying Moths, Soft Scales, Southern chinch bugs, Sow bugs, Spider Beetles, Springtails, Squash bugs, Stable Flies, Stink Bugs, Tarnished Plant Bugs, Thrips, Tobacco Moths, Tomato budworms, Tomato bugs, Tomato Fruitworms, Tomato Hornworms, Tomato pinworms, Tomato Russet Mites, Tussock moths, Vine mealybugs, Vinegar Flies, Webworms, Weevils, Western Yellowstriped armyworms, Whiteflies and Yellow Mealworms.

USE RESTRICTIONS:

- Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.
- Only protected handlers may be in the area during application.
- Do not apply as a space spray in residential areas.
- Not for use in outdoor metered release devices.
- Keep unprotected persons out of treated areas until sprays have dried.
- Allow spray to dry before allowing adults, children or pets on treated areas.
- Do not wet plants to the point of runoff or drip.
- Do not apply more than 10 times per season.
- Do not reapply within 3 days except under extreme pest pressure.
- In case of extreme pest pressure, do not reapply within 24 hours.
- For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.
- Not for use in outdoor automatic residential misting systems.

- Do not contaminate food or feedstuffs.
- Do not apply when food, feed, and/or water is present.

- Do not use product directly on domestic (companion) animals (dogs, cats, puppies or kittens).
- Do not make applications during rain.
- Do not use in aircraft cabins.
- Do not enter or allow others to enter until sprays have dried.
- Do not enter or allow to enter until vapors, and mists, and/or aerosols have dispersed, and the treated area has been thoroughly ventilated.
- Do not remain in treated area. Exit area immediately and remain outside the treated area until aerosols, vapors, and/or mists have dispersed.
- When used indoors as a crack and crevice, surface, or space spray applications. Remove or cover exposed food and drinking water before application. Remove or cover dishes, utensils, food processing equipment and food preparation surfaces or wash them before use.
- When used in indoor food handling/processing facilities. Do not make space spray applications when the facility is in operation. Prior to space spray applications, cover or remove exposed food. Prior to space spray applications, cover food processing surfaces or clean after treatment and before use.
- When used in dairy barns or facilities: Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.

- **SPRAY DRIFT MANAGEMENT FOR AGRICULTURAL CROPS**

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interactions of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Do not apply at wind speeds greater than 10 mph at the application site.

Do not make any type of application into temperature inversions.

Apply as a medium or coarser spray (ASABE standard 572).

- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios. Except as a spot or crack and crevice treatment. During application do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. All outdoor applications, if permitted elsewhere on the label, must be limited to spot or crack and crevice treatments only, except for the following permitted uses, if allowed elsewhere on this label:
 - Applications to soil or vegetation, as listed on this label, around structures;
 - Applications to lawn, turf, and other vegetation, as listed on this label;
 - Applications to the side of a building, up to a maximum height of 3 feet above grade;
 - Applications to the underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, or overhang, awning or other structure;
 - Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;
 - Applications to vertical or horizontal surfaces when surrounded by or directly above soil, lawn, turf, mulch, vegetation, or other porous surface, where runoff to surface water is unlikely to occur.

Additional Requirements for Aerial Applications:

Do not release spray at a height greater than 10 feet above the ground or crop canopy.

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Aerial applicators must consider flight speed and nozzle orientation in determining droplet size.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Additional requirements for ground applications:

Do not release spray at a height greater than 4 feet above the ground or crop canopy.

Additional requirements for airblast applications:

Direct sprays into the canopy.

Turn off outward pointing nozzles at row ends and when spraying outer rows.

PESTICIDE RESISTANCE MANAGEMENT

MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] contains a Group 3A insecticide. Insect biotypes with acquired resistance to Group 3A may eventually dominate the insect population if Group 3A insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by MGK® Formula 7480 [Tersus Insecticide] [Tersus® PRO] or other Group 3A insecticides.

To delay insecticide resistance consider:

- Avoiding the consecutive use of MGK® Formula 7480 [Tersus Insecticide] [Tersus® PRO] or other group 3A insecticides that have a similar target site of action, on the same insect species.
- Using tank mixtures or premixes with insecticides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide use on a comprehensive IPM program.
- Monitoring treated insect population for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistance pest problems.

USE DIRECTIONS:

IMPORTANT: It is recommended that the final spray mix be buffered to a pH of 5.5 to 7.0. Outside of this range pyrethrins can degrade and the product will lose effectiveness.

To avoid possible harm to honey bees and other beneficial insects, it is advisable to apply when the non-target insects are least active.

Pyrethrins degrade rapidly in sunlight. To ensure the best performance, coverage is key. Use spray equipment that will provide the best coverage and direct contact with as many insects as possible.

Kills only at time of application. Listed insect pests must be directly contacted to be effective.

TANK MIX: This product may be tank mixed with other insecticides, acaricides, fungicides, adjuvants, and wetting agents. This application must conform to accepted use precautions and directions for both products. Tank mix applications must be made in accordance with the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be mixed with any product with label prohibitions against such mixing.

Prior to tank mixing, a compatibility test should be conducted using the proper proportions of products and water to ensure the physical compatibility of the mixture.

FOOD AREA USE: Do not contaminate food or feedstuffs. Do not apply directly to food. In the home cover all food processing surfaces, cover dishes and utensils during treatment or thoroughly wash before use.

SURFACE SPRAY:

FOR USE AS A SURFACE SPRAY IN LISTED INDOOR AREAS: To kill accessible, exposed stages of listed crawling insects, dilute 1 to 3 fluid ounces of concentrate with one gallon (8 ml to 24 ml/L) of water, mix well and apply as a coarse wetting spray at the rate of 1 gallon of spray mixture per 750 square feet (54 ml/m²) of surface. To ensure maximum kill of listed crawling insects, spray thoroughly into all cracks, moldings, crevices, walls, floors and surfaces of bins, storage and handling areas. Particular attention should be paid to areas where moisture collects such as drains, sinks, and water pipes and around the base of heavy machinery and equipment, contacting as many insects as possible. To kill ANTS (excluding fire and Pharaoh ants), spray directly into nests, along trails, and directly on all ants observed.

Dilution Table for Surface Spray

Fluid ounces of Concentrate Per Gallon of Solution	Pounds of Pyrethrum Per Gallon of Solution	Percent Pyrethrins in Solution
1	0.0032 (0.38g/L)	0.039%
2	0.0064 (0.77g/L)	0.078%
3	0.0096 (1.15 g/L)	0.118%
4	0.0128 (1.53 g/L)	0.159%
5	0.0160 (1.92 g/L)	0.200%
6	0.0192 (2.30 g/L)	0.242%
7	0.0224 (2.68 g/L)	0.284%
8	0.0256 (3.07 g/L)	0.328%
12	0.038 (4.56 g/L)	0.508%
16	0.051 (6.12 g/L)	0.702%
22	0.070 (8.4 g/L)	1.020%

FOR USE IN MEAT AND POULTRY PROCESSING FACILITIES: To kill accessible, exposed stages of listed crawling insects, dilute 9 fluid ounces with one gallon (71.4 ml/L) of water and apply at the rate of 1 gallon to 750 square feet (54 ml/m²), paying special attention to force the spray into all cracks and crevices.

SPACE SPRAY IN FOOD AND NON-FOOD AREAS OF LISTED INDOOR AREAS:

Do not use as a space spray in residential areas.

For use in mechanical fogging or spraying equipment to kill accessible stages of listed FLYING AND CRAWLING INSECTS. Close room and shut off all air conditioners or ventilating equipment. Dilute at the rate of 1 part concentrate into 1 to 8 parts water (see table below) and mix well. Apply at the rate of 1 fluid ounce of diluted solution per 1,000 cubic feet (1.04 ml/m³) of space, filling the room with mist. Direct the space treatment upward and whenever practical, keep doors and windows closed for at least 30 minutes after application. Vacate treated area and thoroughly ventilate before re-entry. [Note to Review: rate is below 0.0033 lbs. Py /1,000 cubic ft. in food handling: $c1 = 7.83 \text{ lbs/Gal} \times 0.05 = 0.392 \text{ lbs. Py /Gal}$ $0.391 \text{ lbs Py/Gal} \times 1 = c2 \times 8$. $C2 = 0.0489 \text{ lbs. Py/Gal}$. 1 fl. oz. Diluted material = .0489 lbs Py / Gal / 128 fl. oz/Gal = 0.00038 lbs. Py / 1,000 cubic ft.]

This concentrate may also be diluted with oil. Any oil should also meet Federal Food Additive Regulation requirements as defined by CFR Title 21. Conduct a small jar compatibility test by mixing a small amount of oil and concentrate and observe the physical compatibility of the mixture. Dilute at the rate of 1 part of concentrate with up to 8 parts oil. Apply at the rate of 1 fluid ounce of diluted solution per 1,000 cubic feet (1.04 ml/m³) of space. **Not for use on food. Do not contaminate food or feed stuffs.**

When this product is applied as a space spray in food processing or food handling establishments, applications should be confined to time periods when the plant is not in operation.

Dilution Table for ULV Foggers

Dilution Ratio:					
Concentrate	Water	Ratio of Concentrate to solution by volume	Ratio of water to solution by volume	Pounds of Pyrethrum per 1,000 cu. ft. when applied at 1 fl. oz. per 1,000 cu. ft.	Percent Pyrethrins in Solution
Undiluted		1.00	0.00	0.0032 (0.051 g/m ³)	5.00%
1	1	0.50	0.50	0.0016 (0.025 g/m ³)	2.47%
1	2	0.33	0.67	0.0011 (0.018 g/m ³)	1.65%
1	3	0.25	0.75	0.00101 (0.016 g/m ³)	1.23%
1	4	0.20	0.80	0.00064 (0.010g/m ³)	0.99%
1	8	0.11	0.89	0.00035 (0.0056 g/m ³)	0.547%

FOR USE ON SWEET POTATOES IN STORAGE: To kill Fruit Flies and Vinegar Flies, dilute this concentrate at 1 part to 14 parts water (9 fluid ounces with one gallon of water (71.37 ml/L)). Apply as a space fog with a mechanical fogger capable of producing particles of aerosol size at the rate of 1 gallon diluted spray per 100,000 cubic feet of space (40 ml/L). Apply only when flying insects are present. Several applications may be necessary during periods of heavy infestation, but do not make more than 10 applications. [NOTE TO REVIEWER This application rate does not exceed the maximum rate of 0.001 lbs. per 1,000 cubic feet for Space spraying post vegetables. 9 fl. oz. x 1 Gal/128 fl. oz. = 0.0703 Gal. x 7.83 lbs/Gal. = 0.550 lbs. Tersus x 0.05 = 0.0275 lb.Py/ 100,000 cubic feet. 0.0275 lbs. Py/100,000 cu ft. = x / 1,000 cu. ft. x = 0.000275 lbs. Py / 1,000 cu. ft.]

FOR USE ON STORED PRODUCTS: The product can be used to kill accessible stages of listed insects on the following stored commodities: Almond Nutmeat and Shells, Barley, Beans, Birdseed, Buckwheat, Cocoa Beans, Corn, Cottonseed, Dried Apricots, Dried Fruit, Dried Prunes, Figs, Flax, Grain Nuts, Oats, Peanut, Pistachio, Raisins, Rice, Rye, Sorghum, Tobacco, Wheat, and Walnut Nutmeat and Shells held in storage.

DRIED FRUIT PRODUCTS IN STORAGE OR BEING PROCESSED: To kill the following stored product pests: Driedfruit Beetles and Sawtoothed Grain Beetles. Remove and destroy infested products. Diluteconcentrate at the rate of 1 part concentrate to 8 parts water and mix well. Disperse the solution as a fine mist in the air above the trays and shelves. If the solution is applied as a space spray, use one ounce diluted spray per 1,000 cubic feet of space (1 ml diluted spray / m³ of space). Immediately following application, leave the room closed off for 1 hour. Thoroughly ventilate the treated area before re-entry. Do not apply more than 1 time per day. Sweep up and destroy fallen insects. [Note to Reviewer: rate is below 0.001 lbs. Py /1,000 cubic ft. for space treatments to fruits and vegetables: c1 = 7.83 lbs/Gal x 0.05 = 0.392 lbs. Py /Gal 0.391 lbs Py/Gal x 1 = c2 x 8. C2 = 0.0489 lbs. Py/Gal. 1 fl. oz. Diluted material = .0489 lbs Py / Gal / 128 fl. oz/Gal = 0.00038 lbs. Py / 1,000 cubic ft.]

ON ALMONDS, PEANUTS, PISTACHIOS AND WALNUTS IN BULK OR IN BAGS: To kill the following stored product insects: Almond Moths, Angoumois Grain Moths, Ants (excluding fire and Pharaoh ants), Cadelles, Cigarette Beetles, Confused Flour Beetles, Drugstore Beetles, Flat Grain Beetles, Granary Weevils, Indian Meal Moths, Lesser Grain Borers, Maize Weevils, Mediterranean Flour Moths, Merchant Grain Beetles, Red Flour Beetles, Rice Weevils, Rusty Grain Beetles, Sawtoothed Grain Beetles and Squarenecked Grain Beetles, dilute 0.815 fluid ounces of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] per gallon (15.86 ml/L) of water and apply as a coarse wet spray over the top of stored nuts or the outside surface of stacked bagged nuts at the rate of 4 gallons per 1,000 square feet (165 ml/m²). Apply at weekly intervals for about 6 weeks and then at 15-day intervals. The first two applications should be applied at the rate of 4 gallons per 1,000 square feet (165 ml/m²), and subsequent treatments should be applied at the rate of 2 gallons per 1,000 square feet (80 ml/m²). [NOTE to reviewer: 0.815 fl. oz/Gal x 4 Gal = 3.26 fl. oz. applied to 1,000 sq ft. does not exceed maximum application rate of 0.01 lbs. Py / 1,000 sq. ft. for post-harvest to nuts 3.26 fl. oz Tersus x 1 Gal/ 128 fl. oz.= 0.02547 Gal x 7.38 lbs./Gal= 0.1879 lbs. Tersus x 0.05 = 0.01 lbs. Py / 1,000 sq. ft.]

TREATMENT OF STORED GRAIN AND SEED AREAS: For best results to kill stored product pests in grain and seed storage areas and stored grain and seed, treat the area when it is empty of product, as a protectant applied as commodity is put into storage, and as a surface spray once it is in storage.

FOR USE IN STORAGE SITES: This concentrate can be used to treat grain and seed in warehouse bins and trucks, cargo ships, mills, bin hoppers, elevators and conveying equipment as a cleanup prior to using them for storage. In mills and elevators, all grain-infested accumulations should be removed from the bin hoppers. All storage areas and conveying equipment should be thoroughly cleaned by sweeping out the waste grain, cobwebs and other debris from the walls and rafters as well as on the floor and door frames with special attention to material lodged in the cracks and crevices. All debris should be removed and burned to kill eggs and insects that might be present.

For farms, particular attention should be given to cleaning up around the used feed and grain bags, grain residues from wagons, harvesting equipment and feed troughs. Newly harvested grain should not be placed in the same bin with carry-over grain, and all carry-over grain stocks that are not treated with grain protectant should be fumigated. These cleaning operations should be done within two or three weeks before harvest.

After above sanitation measures have been employed, spray all areas prior to use for storage with 1 part to 22 parts water (6 fluid ounces with one gallon of water) up to 1 part to 8 parts (1 pint (0.5 L) with one gallon (3.78 L) of water). Apply at the rate of one gallon per 1,000 square feet) on walls, floors, ceilings and partition boards of bins, paying particular attention to forcing the spray into all cracks and crevices. [Note to Reviewer: This is below the maximum application rate of 0.056 lbs Py / 1,000 sq ft. for surface application in food/feed areas 16 fl. oz x 1 Gal/ 128 fl.oz.= 0.125 Gal x 7.38 lbs/Gal = 0.9225 lbs. Tersus x 0.05 = 0.046 lbs Py /1,000 sq. ft]

FOR USE AS A GRAIN PROTECTANT: This concentrate when diluted with water and sprayed directly on grains will effectively protect the grain against grain storage insects for a full season or approximately 8 months. Dilute at the rate of 1 part to 6 parts water (21.3 fluid ounces with one gallon (192 mls ml/L) of water). Thoroughly mix the emulsion and apply at the rate of 1 gallons (3.78 L) per 1,000 bushels of grain as it is carried along a belt or as it enters the auger or elevator. This concentrate may be used in combination with a registered fumigant for use on heavily infested stored products. [Note to reviewer: This application rate is below the 0.1 lbs. Py / 1,000 bushels. 21.3 fl. oz. x 1 Gal./ 128 fl. oz. x 7.38 lbs./Gal x 0.05 = 0.0614 lbs. Py / 1,000 bushels]

Monthly inspections should be made. If the top 2 or 3 inches (0.6 to 0.9 m) are infested, re-treat applying at the rate of 1/2 gallons (1.89 L) of diluted material per 1,000 bushels of stored product. Do not reapply for 30 Days.

SURFACE TREATMENT OF STORED GRAIN AND SEED: To kill Indian Meal Moths, Angoumois Grain Moths and Mediterranean Flour Moths, monthly inspections should be made after the grain is placed in storage. If the top two or three inches are infested, dilute 1 part MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] with 14 parts of water and apply at the rate of 2 gallons per 1,000 square feet (80 ml/m²) of grain. Rake the mixture into the grain to a depth of 4 inches (10 cm). Do not reapply for 30 Days. [Note to reviewer this rate is below the maximum app rate of 0.10 lbs. ai/ 1,000 bushel of grain. 17.07 fl oz. x 1 Gal/ 128 = 0.133 lbs Tersus x 0.05 = 0.0066 lbs Py. / 1,000 sq. ft. of grain to a 0.333 ft depth. 1 bushel = 50 lbs. grain. Density of grain approx. = 40 lbs. / cubic ft. = 0.333 ft x 31.6 ft. x 31.6 ft. = 332.5 cubic ft of grain x 40 lbs. grain/ cubic ft. = 13,300, lbs. of grain in 332.5 cubic feet of grain. / 1 Bushel / 50 lbs. = 266 Bushels of grain per 1,000 sq. ft of grain to a 0.333 ft. depth 0.10 lbs./ 1,000 bushels = x lbs./ 266 bushels. x = 0.0266 lbs.]

IMPORTANT NOTE: Plant safety is an important consideration when using insecticides in a greenhouse. However, it is not possible to evaluate the phytotoxicity of MGK® Formula 7480 [Tersus Insecticide] [Tersus® PRO] on numerous plant varieties that may react differently to insecticides in different growth stages or under varying environmental conditions. Before making widespread applications of MGK® Formula 7480 [Tersus Insecticide] [Tersus® PRO] or tank mix combinations, treat a limited number of plants and observe for phytotoxicity over a 10-day period.

DIRECTIONS FOR APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION):

Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move) irrigation systems. Do not apply this product through any other type of irrigation system.

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Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for the operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the pump motor stops. The irrigation line or water pump must include a functional pressure valve, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must be a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of more dilute suspension per unit of time.

GROWING CROPS (OUTDOORS AND IN GREENHOUSES AND NURSERIES):

Apply 4.5 to 16.35 fluid ounces per acre (333 ml to 1,193 ml/Ha) by ground equipment in sufficient water for thorough coverage. Mix only enough for immediate use. Spraying should begin when insects first appear. Do not wait until plants are heavily infested. Repeat as needed but not more than once daily.

Maximum application rates:

Field and Orchard—0.05 lbs. a.i./ acre or 16.35 fl. oz. of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] per acre. 0.0011 lb. a.i./1,000 sq. ft. 0.0375 fl. oz. of Tersus® Insecticide [Tersus® PRO] per 1,000 sq. ft.

Greenhouse space sprays -0.00014 lbs. a.i./1,000 cu ft. or 0.0458 fl. oz. of Tersus per 1,000 cu. ft.

Do not apply more than 10 times per season.

ROOT AND TUBER VEGETABLES: Arracacha, Arrowroot, Purple Arrowroot, Japanese Artichoke, Jerusalem Artichoke, Garden Beets, Sugar Beets, Edible Burdock, Edible Canna, Carrots, Cassava (bitter or sweet), Celeriac (celery root), Chayote (root), Chervil (turnip rooted), Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Japanese Radish (Daikon), Rutabaga, Salsify, Black Salsify, Spanish Salsify, Sweet Potato, Tanier, Turmeric, Turnip, Yam (true), Yam Bean.

LEAVES OF ROOT AND TUBER VEGETABLES: Garden Beet, Sugar Beet, Edible Burdock, Carrot, Cassava (bitter or sweet), Celeriac (celery root), Chervil (Turnip Rooted), Chicory, Dasheen (Taro), Parsnip, Radish, Japanese Radish (Daikon), Rutabaga, Black Salsify, Sweet Potato, Tanier, Turnip, Yam (true).

BULB VEGETABLES: Garlic, Great-headed Garlic, Leek, Onion (bulb and green) Welsh, Shallot.

LEAFY VEGETABLES: Amaranth (Leafy Amaranth, Chinese Spinach, Tampala), Arugula, Cardoon, Celery, Chinese Celery, Celtuce, Chervil, Corn Salad, Chrysanthemum (edible-leaved), Chrysanthemum (garland), Cress (garden, water), Upland Cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Fennel (Florence), Lettuce (head and leafy), Orach, Parsley, Purslane (garden & winter), Radicchio, Rhubarb, Spinach, Fine Spinach (Malabar, Ceylon), Spinach (New Zealand), Swiss Chard.

BRASSICA (COLE) LEAFY VEGETABLES: Broccoli, Chinese Broccoli (Gai Lan), Broccoli Raab (Rapini), Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavallo broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens.

LEGUME VEGETABLES (SUCCULENT OR DRIED): Adzuki Beans, Field Beans, Kidney Beans, Lima Beans, Moth Beans, Mung Beans, Navy Beans, Pinto Beans, Rice Beans, Runner Beans, Snap Beans, Tepary Beans, Urd Beans, Wax Beans, Asparagus Beans, Blackeyed Peas, Catjang, Chinese Long Beans, Cowpeas, Crowder Peas, Southern Peas, Yardlong Beans, Broad Beans (Fava Beans), Chick Peas (Garbanzo Beans), Guar, Jack Beans (Sword Bean), Lablab Beans (Hyacinth Bean), Lentils, Peas (Garden Peas, Field Peas, Sugar Snap Peas, English Peas, Snow Peas), Pigeon Peas, Soybeans, Sweet Lupin Beans, White Lupin Beans, White Sweet Lupin, Sword Beans.

FOLIAGE OF LEGUME VEGETABLES: Plant part of any legume vegetable included in the legume vegetable group that will be used as animal feed including any variety of Beans, Field Peas, Soybeans.

FRUITING VEGETABLES: Eggplant, Ground Cherry, Okra, Pepinos, Peppers (Bell Peppers, Chili Peppers, Cooking Peppers, Pimentos, Sweet Peppers), Tomatillos, Tomatoes.

CUCURBIT VEGETABLES: Balsam Apple, Balsam Pear (Bitter Melon), Chayote (fruit), Chinese Wax Gourd (Chinese preserving melon), Chinese Cucumber, Citron Melon, Cucumber, Gherkin, Edible Gourds, Melons (including hybrids, Cantaloupe, Casaba, Golden Pershaw Melon, Crenshaw, Honeydew Melons, Honey Balls, Mango Melon, Muskmelon, Persian Melon, Pineapple Melon, Santa Claus Melon, Snake Melon), Pumpkin, Squash (summer & winter), Watermelon (including hybrids).

CITRUS FRUITS: Calamondin, Citrus Citron, Citrus Hybrids, Grapefruit, Kumquats, Lemons, Limes, Mandarin (Tangerine), Orange (sweet & sour), Pummelo, Satsuma Mandarin (Citrus spp. includes Chironja, Tangelos, Tangors).

POME FRUITS: Apple, Crab Apple, Loquat, Mayhaw, Pear, Oriental Pear, Quince.

STONE FRUITS: Apricot, Cherry (sweet & sour), Nectarine, Peach, Plum, Prune, Chickasaw Plum, Damson Plum, Japanese Plum, Plumcot.

SMALL FRUITS AND BERRIES: Blackberry, Blueberry, Cranberry, Currant, Dewberry, Elderberry, Gooseberry, Grape, Huckleberry, Loganberry, Olallieberry, Raspberry (black & red), Strawberry, Youngberry.

TREE NUTS: Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia Nut (Bush Nut), Pecan, Pistachio, Walnut, Black and English (Persian).

ORIENTAL VEGETABLES: Acerola, Atemoya, Balsam pear (bitter melon), Carambola, Japanese Artichoke, Chinese Broccoli (Gai Lan), Chinese Cabbage (Bok Choy, Napa), Chinese Mustard Cabbage (Gai Choy), Dasheen, Ginger, Ginseng, Chinese Longbeans, Mung Beans, Citron Melon, Japanese Radish (Daikon), Chinese Spinach, Chinese Waxgourd, Cilantro, Citron Melon, Rambutan, Water Chestnut.

SUBTROPICAL FRUITS: Avocado, Banana, Carob, Barbados Cherry, Cherimoya, Dates, Durian (Jackfruit), Feijoa, Figs, Guava, Kiwifruit, Lychee, Mango, Papaya, Passion Fruit, Persimmon, Pineapple, Pomegranate.

CEREAL GRAINS: Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl Millet, Popcorn, Rice, Rye, Sorghum (Milo), Teosinte, Triticale, Wheat, Wild Rice.

FORAGE, FODDER AND STRAW OF CEREAL GRAINS: Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild Rice.

GRASSES FOR SEED, FORAGE, FODDER AND HAY: Any grass, Gramineal family (green or cured) except sugarcane and those listed in the cereal grains group, Pasture and Range Grasses, Grasses grown for hay and silage, Bermudagrass, Bluegrass, Bromegrass, Fescue, Oat hay, Orchard Grass, Forage Sorghum, Sudan Grass, Timothy.

NON-GRASS ANIMAL FEEDS: Alfalfa, Velvet Bean, Clover, Kudzu, Lespedeza, Lupine, Sainfoin, Trefoil, Crown Vetch, Milk Vetch.

HERBS AND SPICES: Allspice, Angelica, Anise (anise seed), Anise [star], Annatto (seed), Balm (lemon balm), Basil, Borage, Burnet, Caper buds, Caraway, Caraway [black], Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chamomile, Chervil (dried), Chicory, Chive, Chive [Chinese], Cinnamon, Clary, Clove buds, Coriander (cilantro or Chinese parsley) (leaf), Coriander (cilantro) (seed), Costmary, Culantro (leaf), Culantro (seed), Cumin, Curry (leaf), Dill (dill weed), Dill (seed), Fennel (common), Fennel [Florence] (seed), Fenugreek, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf), Lovage (seed), Mace, Marigold, Marjoram (includes sweet or annual marjoram, wild marjoram or oregano, and pot marjoram), Mustard (seed), Nasturtium, Nutmeg, Oregano, Mint, Paprika, Parsley (dried), Pennyroyal, Pepper [black], Pepper [white], Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory [summer and winter], Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

ADDITIONAL CROPS: Artichoke, Asparagus, Avocado, Coffee, Cotton, Hops, Jojoba, Mushroom, Okra, Olives, Peanuts, Pineapple, Rice, Safflowers, Sesame, Sugar Cane, Sunflower, Tea.

TO KILL ANTS (EXCLUDING FIRE AND PHARAOH ANTS) ON ORCHARD FLOORS and Vineyard Floors: Apply as a broadcast spray to the entire orchard or vineyard floor using ground spray equipment at 5 to 17 fluid ounces per acre (367 ml to 1,124 ml/Ha) in 25 or more gallons (95 L or more) of water. For best results use the high rate for heavy infestations and the lower rate for light infestations.

Do not apply where weed growth or other obstructions would impede uniform coverage of the orchard or vineyard floor. Mow or chemically control weeds before the application. Foliar applications of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] may be made in addition to the orchard floor treatment.

USE ON GREENHOUSE FRUIT, VEGETABLE, FLOWER AND FOLIAGE PLANTS: Combine 13.07 fluid ounces of concentrate with 100 gallons of water for applications with conventional sprayers or 0.1312 of a fluid ounce of concentrate per gallon of water for applications with handheld or backpack sprayers. Apply the diluted product at the rate of 3 gallons/1,000 sq. ft. [Note: this is below the max app rate of 0.0012 lbs Py / 1,000 sq. ft. 13.07 fl. oz x 1 Gal/12,800 fl.oz = 0.001021 Gal x 7.83 lbs./Gal = 0.00800 lbs. x 0.05 = 0.0004 lbs Py / Gal. x 3 Gal/ 1,000 sq ft. = 0.0012 lbs. Py/ 1,000 sq. ft.

Do not exceed maximum application rate of .0012 lbs. a.i./1,000 sq. ft. or 0.39 fl. oz. of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO]/ 1,000 sq. ft.

Do not apply more than 1 time per day.

FOR USE IN VEGETABLE AND TRUCK GARDENS: For commercial production of listed crops to kill listed insects dilute 0.25 to 0.373 fl. oz. (7 to 11 ml) of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] per gallon of water (2 ml/ liter of water to 4 ml/L of water). Apply diluted solution at the rate of 1 Gallon / 1,000 sq ft. with all types of agricultural sprayers, including compressed air sprayers or pump driven sprayers.[Note to reviewer: Does not exceed max app reate of 0.05 lbs. Py/Acre for outdoor growing crops. 0.373 fl. oz x 1 Gal/128 x 7.83 = 0.228 lbs. x 0.05 = 0.0011 lbs Py / 1,000 sq ft. x 43, 560 sq. ft. / Acre = 0.050 lbs./Acre.]

USE WITH HYDROPONICALLY GROWN VEGETABLES

AS A WATER SYSTEM TREATMENT: To kill aquatic diptera larvae, apply MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] to the water at the rates outlined in the following table:

Pyrethrins Concentration	ml [fl oz.] of Tersus® Insecticide [Tersus® PRO]	Gallons of Water
0.1 ppm	80.0 [2.70 fl. oz.]	10,000 (3780 L)
0.01 ppm	8.0 [0.27 fl. oz.]	10,000 (3780 L)
0.001 ppm	0.80 [0.027 fl. oz.]	10,000 (3780 L)

FOR USE ON HARVESTED FRUITS AND VEGETABLES: Including Apples, Blackberries, Blueberries, Boysenberries, Cherries, Crab Apples, Currants, Dewberries, Figs, Gooseberries, Grapes, Guavas, Loganberries, Mangoes, Muskmelons, Oranges, Peaches, Pears, Peas, Pineapples, Plums, Raspberries, Tomatoes.

DIRECT SPRAY TO FRUITS IN BASKETS, ON TRUCKS OR IN PROCESSING PLANTS: To kill *Drosophila* spp., *Tephritid* spp. Fruit Flies, Vinegar Flies and other nuisance pests dilute this concentrate at the rate of 1 part with 900 parts water (1 pint (0.47 L) per 125 gallons (567 L) or 1 teaspoon (5 ml) per 10 pints (4.73 L) water). Thoroughly mix the emulsion in the spray tank and treat as follows:

- 1) Apply liberally to fruits and vegetables in baskets, on trucks and in plants. Use sprayers at a high pressure for applying at the rate of five or six pints of diluted spray to a 2-ton load of produce. Direct the spray for maximum coverage of the baskets or hampers. It is important to spray between and beneath the containers.
- 2) Spray the raw stock stacked in the yard.
- 3) Dip baskets in the diluted spray, after dumping the produce to kill adhering larvae and pupae.

FOR USE ON PRODUCTION OF: Beefalo, Birds, Buffalo, Calves, Cattle - beef and milking, Chickens, Donkeys, Ducks, Elk, Emus, Exotics, Geese, Goats, Hogs, Horses, Lambs, Livestock, Llamas, Mules, Ostrich, Oxen, Pheasants, Ponies, Poultry, Pullets, Quail, Ratites, Roosters, Sheep, Swine and Turkeys.

FOR USE AS LIVESTOCK SPRAY:

Pest	Application Rates	Remarks
To kill house flies, mosquitoes and gnats	Dilute at the rate of 1.5 to 3 fluid ounces per gallon of water (12 to 24 ml/L of water) and apply up to 1 Quart to wet the hair thoroughly with particular attention to topline, underline, flanks, withers and other infested areas.	Repeat treatment at intervals of 5 to 12 days for small insect populations or as needed when flies are emerging in large numbers. Do not apply more than 1 time per day.
To kill stable flies	Dilute at the rate of 2.5 to 4 fluid ounces per gallon of water (20 to 32 ml/L of water) and apply a quart per adult animal to wet the hair thoroughly with particular attention to the legs, flanks, barrel, topline and other body areas commonly attacked by these flies.	Repeat treatment each week as needed. Do not apply more than 1 time per day.
To kill fleas on livestock and to obtain protection against reinfestation	Dilute at the rate of 9 fluid ounces per gallon (71 ml/L) of water and wet the animal by dipping or spraying at the rate of up to 1 Quart per animal. This product may also be used for livestock quarters. [Note: 9 fl.oz / 128 fl.oz./ Gal= 0.0703 Gal Tersus * 0.05 = 0.0035 lbs Py /Gal. Below the 0.035 lb. Py Gal. max. [pg 10 of 18 Py Appendix A-2 lists Max App Rate as a concentration of 0.035l lb. ai. /Gal. rather than an app rate.]	Do not spray pets. For best results against fleas animal quarters and bedding should be treated. Remove and destroy old bedding. To reduce infestation, thoroughly spray the animal's bedding and sleeping quarters. Put fresh bedding in quarters after spray has dried. Do not apply more than 1 time per day.

FOR USE AS POULTRY SPRAY:

Pest	Application Rates	Remarks
To kill poultry lice	Using a dilution of 2.5 to 4 fluid ounces of concentrate per gallon of water (20 to 32 ml/L of water) spray roosts, walls and nests or cages thoroughly. Apply at the rate of 1 Gallon of diluted product per 1,000 sq. ft. [Note: 7.83 lbs/ 128 fl.oz. = 0.061 lbs/ fl. oz. * 4 fl. oz. * 0.05 = 0.0122 lbs. Py / 1,000 sq ft. below 0.056 lbs. Py /1000 sq ft. max rate]	It is not necessary to remove poultry from the housing unit during treatment. This should be followed by spraying over the birds with a fine mist. Do not apply more than 1 time per day.
To kill poultry mites on poultry and in poultry houses	Dilute at the rate of 2.5 to 4 fluid ounces per gallon (20 to 32 ml/L of water) of water and spray crevices of roost poles, cracks in walls and cracks in nests where the poultry mites hide. Apply at the rate of 1 Gallon of diluted product per 1, 000 sq. ft.	This should be followed by spraying over the birds with a fine mist. Do not apply more than 1 time per day.
To kill adult darkling beetles (lesser mealworms)	Dilute 2 to 5 teaspoons (10 to 25 ml) of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] per gallon of water. Using a power or proportioner-type sprayer, apply a uniform spray until wet at pressures of 80 to 100 pounds per square inch to surfaces such as interior walls, roosting posts, structural support pillars, and other surfaces where adult beetles are observed. One gallon of spray mixture covers 250 to 500 sq. ft. (23 m² to 46 m²).	For maximum effectiveness, treatments should coincide with poultry house clean out and litter replacement as this activity will tend to flush beetles to vertical surfaces where they will be exposed to the spray. Indoor control can be enhanced by making perimeter treatments around the outside of buildings. To prevent immigrating adult beetles, apply a uniform band of spray 2 feet (0.6 m) up and 1 to 4 feet (0.3 to 1.2 m) out from the foundation. Do not contaminate food/feed or water. Do not apply more than 1 time per day.

FOR USE ON PRODUCTION ANIMALS IN BARNs, DAIRIES, MILKING PARLORS, MILKING ROOMS AND POULTRY HOUSES:

Product must be formulated to deliver no more than this maximum rate when used according to directions:

Surface application 0.0056 lbs. a.i./1,000 sq. ft. or 18.3 fl. oz. of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] /1,000 sq. ft.

Crack/crevice or spot surface - 0.056 lbs. a.i./1,000 sq. ft. or 18.3 fl. oz. of MGK® Formula 7480 [Tersus Insecticide] [Tersus® PRO] /100 sq. ft.

Space sprays when non-domestic animals are absent-0.0033 lbs. a.i./1,000 cubic feet of space or 1 fl. oz. or 1 fl. oz. of MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] /1,000 cubic feet of space.

Space sprays when non-domestic animals are present 0.0008 lb. a.i./1,000 cubic feet of space or 0.26 fl. oz. of MGK® Formula 7480 [Tersus Insecticide®] [Tersus® PRO] / 1,000 cubic feet of space.

To kill the following flying insects: Fruit Flies, Gnats and Small Flying Moths, dilute at the rate of 2.5 fluid ounces per gallon (19.82 ml/L) of water. Apply as a fog or fine mist (at approximately 2 fluid ounces per 1,000 cubic feet of space (2.08 ml/m³), directing the nozzle for maximum coverage and above livestock and poultry toward the ceiling and upper corners of the area being treated. For best results, close doors and windows before spraying, and keep them closed for 10 to 15 minutes. Applicator should vacate the treated area and ventilate it prior to returning. Sweep up and destroy fallen insects.

DIRECTIONS FOR USE IN COMMERCIAL ANIMAL PREMISE AUTOMATIC MISTING SYSTEMS:

When using this product, installers and service technicians must comply with the license certification, or registration requirements of the state(s), tribe(s) or local authority(ies) where they are installed.

Do not apply when food, feed, and/or water is present.

When applying via a remote activation device, do not apply when people and pets are present. If possible, when applying via automatic timer, set the timing for application when people and pets are unlikely to be present.

Direct nozzles to spray towards the target area and away from areas where people are typically present. Do not use in an evaporative cooling system. Do not use in misters located within 3 feet of air vents, air conditioner units or windows.

If used in a system with a reservoir tank for the end use dilution, the system reservoir tank must be locked. Securely attach the end use pesticide label and a dilution statement to the system reservoir tank in a weather protected area or plastic sleeve. The dilution statement must be phrased as follows: this container holds ___ parts MGK® Formula 7480 [Tersus® Insecticide] [Tersus® PRO] to ___ parts water.

This product must only be used in systems that have been calibrated to apply no more than the maximum application rate of .0008 lbs. a.i. / 1,000 cubic feet space sprays when non-domestic animals are present.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE:

Keep this product in its tightly closed original container, when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

PESTICIDE DISPOSAL:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

[For containers with capacities equal to or less than 5 gallons (18.9 L)]:

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows [for containers greater than 5 gallons (18.9 L) too large to shake]: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.