

exponent[®]

Insecticide Synergist

Specimen Label

- For use as a synergist in a tank mix to aid in improving the control of insects
- Aids in inhibiting mixed function oxidative resistance in insects
- Raises level of control by increasing insect susceptibility to insecticides
- Labeled for mosquito misting systems
- For use in livestock and poultry areas

ACTIVE INGREDIENT:

Piperonyl butoxide*91.30%

OTHER INGREDIENTS8.70%

100.00%

* (butylcarbityl) (6-propylpiperonyl) ether and related compounds

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.)

See inside for first aid and precautionary statements.

DIRECTIONS FOR USE

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

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 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 responsible for pesticide regulation.

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 the Worker Protection Standard and that involves contact with anything that has been treated, such as soil or water, is:

- Coveralls, shoes plus socks, and
- Chemical-resistant gloves made of any waterproof material.

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 sprays have dried.

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

Except when applying directly on animals or animal premises, do not apply this product in a way that will contact workers or other persons either directly or through drift.

Except when applying directly on animal or animal premises, only protected handlers may be in the area during application.

This product is an emulsifiable concentrate for use in a tank mix with insecticides and acaricides to aid in improving the control of insects and mites. Exponent® Insecticide Synergist is a synergist that aids in blocking oxidative resistance that may develop in insects and mites and has no insecticidal properties of its own.

USE RESTRICTIONS

- Do not apply this product in a way that will contact adults, children, or pets, either directly or indirectly through drift. Only protected handlers may be in the area during application.
- Do not wet plants to the point of runoff or drip.
- Do not apply directly to water, storm drains, or drainage ditches. To prevent product runoff, do not over water the treated area(s) or apply when heavy rain is expected. Rinse applicator over lawn or garden area only.
- Do not remain in treated area. Exit area immediately and remain outside the treated area until aerosols, vapors, and/or mists have dried.
- Always test final spray solution in an inconspicuous area prior to use as some fibers or surfaces may be adversely affected by an application of this, or any liquid product.
- For use as a space spray:** Do not remain in treated area. Exit area immediately and remain outside the treated area until aerosols, vapors, and/or mists have dispersed.
- Products labeled for spray applications to plants:** Do not wet plants to the point of runoff or drip.
- For spray application to articles:** Do not wet articles to point of runoff or drip. Do not use treated article until spray has dried.
- Do not use in aircraft cabins except in compliance with PR Notice 96-3.
- In absence of specific data or experience on growing plants, trees and ornamentals (outdoors, in greenhouses or indoors), it is recommended that tank mixes with Exponent Insecticide Synergist be tested for any phytotoxicity on a representative sample of the growing plants prior to use.
- Do not tank mix Exponent Insecticide Synergist with any product having label prohibitions against such mixing.
- Products labeled for use in food handling and processing facilities:**
 - Do not make space spray applications when facility is in operation.
 - During space spray applications, cover or remove food.
 - During space spray applications, cover food processing surfaces or clean after treatment with a suitable detergent and rinse with potable water before use.
 - Do not make space spray application when facility is in operation.
 - 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 with a suitable detergent and rinse with potable water before use.
 - Do not apply more than 1 time per day.
 - Direct application to food contact surfaces is prohibited.
- After treatment, do not allow children and pets into treated areas until spray has dried.
- Do not use in metered release devices.
- For Indoor Premise Treatments:**
 - Do not apply more than 1 time per day.
 - Do not make space spray application when facility is in operation.
 - 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 with a suitable detergent and rinse with potable water before use.
 - Direct application to food contact surfaces is prohibited.
 - Ventilate well prior to reentry or reoccupation.
 - Allow spray to dry prior to reentry.
- When used in Livestock and Animal Premises:**
 - 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.
 - Do not apply when food, feed, and/or water is present.

APPLICATION TYPES:

Exponent Insecticide Synergist may be applied via ground application units, handheld sprayers, power sprayers, backpack sprayers, outdoor residential misting systems, foggers and ULV applicators, and chemigation.

Indoor and outdoor non-crop mixing chart:

Exponent Insecticide Synergist can be tank mixed with any insecticide product unless prohibited by that insecticide's label.

THE PURPOSE OF THIS CHART IS TO SHOW THE DILUTION RATES OF EXPONENT INSECTICIDE SYNERGIST PER GALLON OF WATER. PLEASE REFER TO CURRENT TANK MIX PARTNER LABEL TO DETERMINE THE RATE OF THAT SPECIFIC PRODUCT THAT IS APPROPRIATE FOR YOUR APPLICATION.

Application Type	Number of fl. oz. of Exponent Insecticide Synergist Mix Rate per gallon	% Active	Maximum Single Application
Surface General and Crack & Crevice or Spot	Light Infestation	0.5 fl. oz.	0.35%
		1.0 fl. oz.	0.71%
	Heavy Infestation	1.5 fl. oz.	1.07%
		2.0 fl. oz.	1.43%
Space Spray	Light Infestation	0.25 fl. oz.	0.18%
		0.50 fl. oz.	0.35%
		0.75 fl. oz.	0.53%
	Heavy Infestation	1.00 fl. oz.	0.71%

USE DIRECTIONS FOR PREMISE PESTS:

EXPONENT INSECTICIDE SYNERGIST PREMISE USE RATES and RESTRICTIONS:

WHEN TANK MIXING, ALWAYS FOLLOW THE MOST RESTRICTIVE LABELING OF ALL PRODUCTS IN THE MIXTURE.

EXPONENT INSECTICIDE SYNERGIST MAY BE USED IN A TANK MIX WITH INSECTICIDES LABELED FOR USE IN THE FOLLOWING AREAS OR USE PATTERNS:

RESIDENTIAL DWELLING AND COMMERCIAL, INSTITUTIONAL INDOOR SITES: Sites such as Homes, Multiple Unit Housing, Hotels, Schools, Restaurants, Food Processing Facilities, Food Storage and Warehousing, Bakeries, Residential Facilities, Healthcare Facilities, Warehouses, Office Buildings, Factories, Home Exteriors, and Industrial Facilities.

Do not make space spray application when facility is in operation.

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 with a suitable detergent and rinse with potable water before use.

Direct application to food contact surfaces is prohibited.

Ventilate well prior to reentry or reoccupation.

Allow spray to dry prior to reentry.

NON-FOOD AREAS: Exponent Insecticide Synergist may be used to treat non-food areas. Non-food areas include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets, and storage (after canning or bottling).

TREATMENTS IN INDOOR FOOD HANDLING/PROCESSING FACILITIES (places other than private residences in which food is held, processed, prepared or served):

Diluted product must deliver no more than the following maximum rate when used according to directions:

Application Type	Maximum Application Rate	Use Restrictions
Surface applications	0.56 lbs. PBO / 1,000 sq. ft. or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	Do not make space spray applications when facility is in operation. During space spray applications, cover or remove food. During space spray applications, cover food processing surfaces or clean after treatment with a suitable detergent and rinse with potable water before use.
Crack Crevice or Spot	0.56 lbs. PBO / 1,000 sq. ft. or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	Do not make space spray application when facility is in operation. Remove or cover exposed food and drinking water before application.
Space Sprays	0.033 lbs. PBO / 1,000 cu. ft. or 0.527 fl. oz. of Exponent Insecticide Synergist per 1,000 cu. ft.	Remove or cover dishes, utensils, food processing equipment and food preparation surfaces, or wash them with a suitable detergent and rinse with potable water before use. Do not apply more than 1 time per day. Direct application to food contact surfaces is prohibited.

FOOD AREAS: Exponent Insecticide Synergist can be used to treat food areas of food handling establishments, restaurants, or other areas where foods are commercially prepared or served.

FOOD STORED IN BAGS: Exponent Insecticide Synergist can be used as a space spray made to the surfaces of bags of stored food products.

Do not exceed 0.033 lbs. PBO or 0.526 fl. oz. Exponent Insecticide Synergist per 1,000 cu. ft. of space treated.

OUTDOOR SITES: Non-Agricultural rights of way, Commercial, Industrial and Institutional Premises and Outdoor Eating Establishments, including Parks, Landscape, Turf, Home Exteriors, Buildings, Industrial Facilities, Equipment.

Diluted product must deliver no more than the following maximum rate when used according to directions:

Application Type	Maximum Application Rate	Use Restrictions
Surface applications	0.075 lbs. PBO / 1,000 sq. ft. or 1.20 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	Do not apply more than 1 time per day.
Crack Crevice or Spot	0.56 lbs. PBO/ 1,000 sq. ft. or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	

OUTDOOR ORNAMENTAL AND LAWNS: Sites such as Trees, Shrubs, Flowers, Foliage Plants, Lawns, Yards, Turf Grass, Golf Courses, Parks, Landscape.

Application Type	Maximum Application Rate	Use Restrictions
Surface applications to outdoor Ornamentals, Flowering and Foliage Lawns.	0.02 lbs. PBO / 1,000 sq. ft. or 0.319 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	Do not apply more than 1 time per day. Do not wet plants to the point of runoff or drip.

OUTDOOR AGRICULTURAL PREMISES: Diluted product must deliver no more than the following maximum rate when used according to directions:

Application Type	Maximum Application Rate	Use Restrictions
Surface applications	0.02 lbs. PBO / 1,000 sq. ft. or 0.319 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	Do not apply more than 1 time per day.
Crack Crevice or Spot	0.56 lbs. PBO / 1,000 sq. ft. or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	

PET PREMISE TREATMENT: Diluted product must deliver no more than the following maximum rate when used according to directions:

Application Type	Maximum Application Rate
Surface applications	0.56 lbs. PBO / 1,000 sq. ft. or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.
Crack Crevice or Spot	0.56 lbs. PBO / 1,000 sq. ft. or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.
Space Sprays	0.033 lbs. PBO / 1,000 sq. ft. or 0.527 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.

DIRECT APPLICATION TO LIVESTOCK, DAIRY AND POULTRY ANIMALS: EXPONENT INSECTICIDE SYNERGIST may be tank mixed with insecticides labeled for application directly to Non-domestic animals (including lactating dairy animals, meat and poultry animals). Do not apply more than 1 time per day. Do not apply microencapsulated product to lactating or food animals.

LIVESTOCK, DAIRY AND POULTRY PRODUCTION FACILITIES AND PREMISES: EXPONENT INSECTICIDE SYNERGIST may be tank mixed with insecticides labeled for use in and around Livestock, Dairy and Poultry Production Facilities, Indoor Agricultural Premises, Commercial Animal Housing and Equipment to improve control of flying and crawling insects.

ANIMALS ALLOWED TO BE PRESENT		
Application Type	Maximum Application Rate	Use Restrictions
Surface-General, crack and crevice and spot	Do not exceed 0.56 lbs. PBO or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	Remove or cover exposed food and water before application. When used in Dairy barns or facilities: close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Wash teats of animals before milking. Do not apply more than 1 time per day.
Space General	Do not exceed 0.0033 lbs. PBO or 0.527 fl. oz. of Exponent Insecticide Synergist per 10,000 cu. ft. of space treated per day.	
ANIMALS NOT PRESENT		
Surface General, crack and crevice and spot	Do not exceed 0.56 lbs. PBO or 8.94 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	Do not apply more than 1 time per day. Remove or cover exposed food and water before application.
Space General	Do not exceed 0.025 lbs. PBO or 4.00 fl. oz. Exponent Insecticide Synergist per 10,000 cu. ft. of space treated per day.	

DIRECTIONS FOR USE IN OUTDOOR RESIDENTIAL MISTING SYSTEMS

NOTE: NOT REGISTERED for use in Automatic ULV Spraying Systems in the State of New York.

Exponent Insecticide Synergist may be mixed only with insecticides that contain either Pyrethrins or Permethrin that are registered for use in outdoor residential misting systems.

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

If the system works on an automatic timer, set the timing for application when people, pets, and food are unlikely to be present.

If the system works when a person operates a remote activation device, then application of this pesticide when people, pets, and food are present is prohibited.

Do not use in an evaporative cooling system.

Direct the nozzles to spray toward the target area and away from swimming pools, water bodies, or eating and cooking areas.

Do not set nozzles to direct mist near outside air condition systems or other home air intakes.

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 Exponent Insecticide Synergist to ___ parts water.

If used in a direct injection system, the pesticide container must be locked. Securely attach the end use label to the pesticide container in a weather protected area or plastic sleeve.

This product must only be used in systems that have been calibrated to apply no more than the maximum application rate of 0.00058 lbs. of piperonyl butoxide or 0.0093 fl. oz. of Exponent Insecticide Synergist per 1,000 cu. ft. per day or 0.00058 lbs. of piperonyl butoxide per nozzle when nozzles are spaced 10 ft. apart.

RESIDENTIAL MISTING DILUTION RATES:

CONTAINER SIZE	To achieve a dilution rate of 0.09 % use:	To achieve a dilution rate of 0.23% use:	To achieve a dilution rate of 0.55% use:
30 GALLONS	4 fl. oz.	10 fl. oz.	23 fl. oz.
55 GALLONS	7 fl. oz.	17.5 fl. oz.	42 fl. oz.
125 GALLONS	16 fl. oz.	40 fl. oz.	95.5 fl. oz.
225 GALLONS	28.5 fl. oz.	71.5 fl. oz.	172 fl. oz.

FOR USE ON CROPS

WHEN TANK MIXING, ALWAYS FOLLOW THE MOST RESTRICTIVE LABELING OF ALL PRODUCTS IN THE MIXTURE.

Exponent Insecticide Synergist can be tank mixed with any insecticide product unless prohibited by that insecticide's label.

Exponent Insecticide Synergist may be used in a tank mix with an insecticide or acaricide on GROWING CROPS (OUTDOORS AND IN GREENHOUSES), as well as in insecticide applications to dormant crops.

SPRAY DRIFT MANAGEMENT FOR AGRICULTURE 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).

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: During ground applications do not release spray at a height greater than 4 feet above the ground or crop canopy.

Additional requirements for airblast applications: During airblast applications direct sprays into the canopy. Turn off outward pointing nozzles at row ends and when spraying outer rows. Use is allowed on listed crops whether grown for food, forage or seed production.

ROOT AND TUBER VEGETABLES: Arracacha, Arrowroot, Purple Arrowroot, Japanese Artichoke, Jerusalem Artichoke, Beet, Sugar Beet, Edible Burdock, Carrot, Cassava (bitter or sweet), Celeriac (celery root), Chervil (turnip-rooted), Chicory, Dasheen (taro), Ginger, Ginseng, Horseradish, Leren, Parsley (turnip-rooted), Parsnip, Potato, Radish, Japanese Radish (Daikon), Rutabaga, Salsify (Oyster Plant), Black Salsify, Spanish Salsify, Sweet Potato, Tanier (Cocoyam), Turmeric, Turnip, True Yam, Bean Yam.

LEAVES OF ROOT AND TUBER VEGETABLES: Beet, Sugar Beet, Edible Burdock, Carrot, Cassava (bitter or sweet), Celeriac, Chervil (turnip-rooted), Chicory, Dasheen, Parsnip, Radish, Japanese Radish (Daikon), Rutabaga, Black Salsify, Sweet Potato, Tanier, Turnip, True Yam.

BULB VEGETABLES: (*Allium* spp.): Including (but not limited to) Garlic, Great-headed Garlic, Leek, Onion (dry bulb and green), Spring Onion or Scallions, Welsh Onion, Shallot.

LEAFY VEGETABLES: Amaranth (Leafy Amaranth, Chinese Spinach, Tampala), Arugula (Roquette), Celery, Celutce, Chervil, Corn Salad, Chrysanthemum (edible leaved), Chrysanthemum (garland), Cress (garden), Upland Cress (yellow rockets, winter cress), Dandelion, Dock (sorrel), Endive, Escarole, Fennel (Florence), Lettuce (Head and Leaf), Orach, Parsley, Purslane (garden & winter), Rhubarb, Romaine, Spinach, Fine Spinach (Malabar, Ceylon), Spinach (New Zealand), Swiss Chard.

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

LEGUME VEGETABLES (SUCCULENT OR DRIED): Adzuki Beans, Asparagus Beans, Blackeyed Peas, Broad Beans (Fava Beans), Catjang, Chickpeas (Garbanzo Beans), Chinese Longbeans, Cowpeas, Crowder Peas, Field Beans, Guar, Jackbean, Sword Beans, Kidney Beans, Lablab Beans (Hyacinth Beans), Lima Beans, Lentils, Moth Beans, Mung Beans, Navy Beans, Peas (Dwarf, Edible Pod, English, Garden Green, Field, Snow Peas, Sugar Snap Peas), Pigeon Peas, Pinto Beans, Rice Beans, Runner Beans, Snap Beans, Southern Peas, Soybeans, Grain Lupin, Sweet Lupin, White Lupin, Pole Beans, Tepary Beans, Urd Beans, Wax Beans, Yardlong 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.

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

CUCURBIT VEGETABLES: Balsam Pear (Bitter Melon), Chinese Waxgourd (Chinese Preserving Melon), Citron Melon, Cucumber, Gherkin, Edible Gourds, Melons (including hybrids, Ananas, Canary, Cantaloupe, Casaba, Charentais, Crenshaw, Galia, Honeydew Melons, Honey Balls, Mango Melon, Muskmelon, Persian Melon, Piel de Sapo), Pumpkin, Squash (summer & winter), Western Shipper Melon, Watermelon (including hybrids, seeded and seedless).

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

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: Bingleberry, Blackberry, Blueberry, Cranberry, Currant, Dewberry, Elderberry, Gooseberry, Grape, Huckleberry, Loganberry, Lowberry, Olallieberry, Black Raspberry, Red Raspberry, 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: Japanese Artichoke, Chinese Broccoli (Gai Lan), Chinese Cabbage (Bok Choy), Chinese Mustard Cabbage (Gai Choy), Dasheen, Ginger, Ginseng, Chinese Longbeans, Mung Beans, Citron Melon, Balsam Pear (Bitter Melon), Japanese Radish (Daikon), Chinese Spinach, Chinese Waxgourd.

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

ADDITIONAL CROPS: Including Artichoke, Asparagus, Avocado, Coffee, Cotton, Hemp, Hops, Jojoba, Mushroom, Olives, Okra, Peanuts, , Safflowers, Sesame, Sugarcane, Sunflowers, Tea, Tobacco.

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 that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage, Bermudagrass, Bluegrass, Bromegrass, Fescue Annual Ryegrass, Festulolium, Hybrid Ryegrass, Italian Ryegrass, Meadow Fescue, Orchard Grass, Sudangrass, Sorghum-Sudangrass, Tall Fescue, Timothy, Wheat Hay, Turfgrass Varieties, Bentgrass, Kentucky Bluegrass, Specialty Grasses.

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

HERBS AND SPICES: Allspice, Angelica, Anise (Anise seed), Annatto, Balm, Basil, Borage, Burnet, Caper Buds, Caraway, Black Caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery Seed, Chamomile, Chervil dried, Chives, Chinese Chive, Clary, Clove Buds, Coriander (cilantro or Chinese parsley leaf), Coriander (cilantro seed), Costmary, Culantro, Cumin, Curry Leaf, Dill (dill weed), Dill (seed), Fennel (Italian and Sweet), Fenugreek, Grains of Paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf & seed), Mace, Marigold, Sweet Marjoram, Wild Marjoram, Mustard (seed), Nasturtium, Nutmeg, Parsley, Oregano, Mint, Paprika, Parsley, Pennyroyal, Pepper (black & white), Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Summer and Winter Savory, Sweet Bay (Bay Leaf), Tansy, Tarragon, Thyme, Vanilla, Watercress, Wintergreen, Woodruff, Wormwood.

OILSEED CROPS: Canola, Crambe, Rapeseed, Flax, Safflowers, Sesame, Soybeans, Sunflowers.

ORNAMENTALS: African Violet, Ageratum, Aster, Azalea, Begonia, Cacti, Calceolaria, Calendula, Calla, Camellia, Carnation, Ceanothus, Christmas Trees, Conifer Plantations, Conifer Seed Orchards, Cineraria, Chrysanthemum, Coleus, Cyclamen, Cypress, Daffodil, Dahlia, Delphinium, Dogwood, Fern, Ficus, Foliage Plants, Forest Tree Nurseries, Palm and Tropical Trees and Nurseries, Fuchsia, Gardenia, Geranium, Gladiolus, Gloxinia, Gypsophila, Holly, Hyacinth, Hydrangea, Iris, Lilies, Maidenhair Fern, Marigold, Juniper, Marigold, Narcissus, Palm, Pansy, Pelargonium, Peony, Petunia, Philodendron, Phlox, Pine, Pyracantha, Rhododendron, Roses, Rubber Plant, Snapdragon, Stock, Sweet Pea, Tulips, Viburnum, Wandering Jew, Yew, Zinnia and Andromeda, Arborvitae, Ash, Beech, Birch, Boxwood, Cotoneaster, Crab Apple, Dogwood, Elm, Euonymus, Fir, Firethorn, Forsythia, Hawthorn, Hemlock, Hickory, Holly, Honey Locust, Horse Chestnut, Juniper, Larch, Laurel, Lilac, Linden, Mimosa (Silk Tree), Myrtle, Oak, Pine, Privet, Tulip Tree, Willow.

CROP USE RATES AND RESTRICTIONS:

Food Crops grown outdoors or in greenhouses in agricultural settings		
	Maximum Use Rate	Use Restrictions
Field and Orchard Crops	0.5 lbs. PBO / Acre or 7.98 fl. oz. of Exponent Insecticide Synergist per Acre.	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. Do not apply to cotton within 14 days of seed harvest. A 10-day water hold is required for all pyrethrins applications when rice fields are flooded.
Hydroponically-Grown Crops	1.0 ppm a.i. in water	
Greenhouse Space Sprays	0.0014 lbs. PBO / 1,000 cu. ft. or 0.02 fl. oz. of Exponent Insecticide Synergist per 1,000 cu. ft.	
Greenhouse Surface Sprays	0.012 lbs. PBO / 1,000 sq. ft. or 0.192 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	

Greenhouse Grown Ornamental, Flowering and Foliage Plants		
	Maximum Use Rate	Use Restrictions
Surface Applications	0.036 lbs. PBO or 0.575 fl. oz. Exponent Insecticide Synergist per 1,000 sq. ft.	Do not apply more than 1 time per day
Space Sprays	0.0042 lbs. PBO or 0.067 fl. oz. of Exponent Insecticide Synergist per 1,000 cu. ft.	
Sod Farms	16 fl. oz. per acre	

Diluted product must deliver no more that the following maximum rate when used according to directions:

Application Type	Maximum Application Rate	Use Restrictions
Surface Application to Outdoor Crop	0.5 lbs. PBO / Acre or 7.98 fl. oz. of Exponent Insecticide Synergist per Acre	Do not reapply within 3 days except under extreme pest pressure. In case of extreme pest pressure, do not reapply within 24 hours. Do not harvest until spray has dried. Aerial applications: Do not apply less than 2 gal. of diluted solution/Acre to field crops or less than 10 gal. of diluted solution/ Acre to orchard crops. Do not wet plants to point of runoff or drip.
Surface Application to Greenhouse Growing Crop	0.012 lbs. PBO / 1,000 sq. ft. or 0.192 fl. oz. of Exponent Insecticide Synergist per 1,000 sq. ft.	
Space Application to Greenhouse Growing Crop	0.0014 lbs. PBO / 1,000 cu. ft. or 0.02 fl. oz. of Exponent Insecticide Synergist per 1,000 cu. ft.	
Field and Orchard sprays	0.5 lbs. PBO / Acre or 7.98 fl. oz. of Exponent Insecticide Synergist per Acre.	

Following the directions and using the required volume of water on the insecticide label, tank mix at a rate of 2 to 7.98 fl. oz. of Exponent Insecticide Synergist per acre. 7.98 fl. oz. will provide 0.5 lb. of Exponent Insecticide Synergist active ingredient.

Prior to tank mix, a compatibility test should be done using the proper proportions of chemicals and water to ensure the physical compatibility of the mixture. The tank mix application must conform to accepted use precautions and directions for both products.

Mix Exponent Insecticide Synergist with an insecticide based on the amount of active ingredient. Most insecticides are synergized at the ratio range of 1 to 10 parts Exponent Insecticide Synergist's active ingredient to 1 part of an insecticide's active ingredient.

One fl. oz. of Exponent Insecticide Synergist contains 0.0626 pounds of active ingredient. To calculate the fl. oz. of Exponent Insecticide Synergist to use with a given insecticide, first calculate the amount of active ingredient of the insecticide to be used (in pounds), multiply that amount times the ratio of Exponent Insecticide Synergist desired (between 1 and 10), then divide that amount by 0.0626.

Equation: (lbs. insecticide a.i. x desired ratio of Exponent Insecticide Synergist) / 0.0626 = Fluid Ounces of Exponent Insecticide Synergist required

In absence of specific data or experience on growing crops and ornamentals (outdoors, in greenhouses or indoors), it is recommended that tank mixes with Exponent Insecticide Synergist be tested for any phytotoxicity on a sample of the crop or growing plants prior to use.

CROP TANK MIX RATE CHART:

THE PURPOSE OF THIS CHART IS SOLELY TO SHOW THE VOLUMES OF EXPONENT INSECTICIDE SYNERGIST PER VOLUME OF TANK MIX PARTNER. THIS IS NOT A RECOMMENDATION OF TANK MIX PARTNER USE RATES. PLEASE REFER TO THE MOST CURRENT TANK MIX PARTNER LABEL TO DETERMINE THE RATE OF THAT SPECIFIC PRODUCT THAT IS APPROPRIATE FOR YOUR APPLICATION.

Tank Mix Partner Chemical name Example brand name	IF Tank Mix Partner Rate per Acre is:	THEN Exponent Insecticide Synergist Rate per Acre is:	
		No. of fl. oz.	Maximum
Abamectin 2% a.i. Agri-mek® 0.15 EC	5.0 fl. oz. to 10.0 fl. oz.	2.0 fl. oz.	8.0 fl. oz.
	16.0 fl. oz.	3.0 fl. oz.	
	20.0 fl. oz.	4.0 fl. oz.	
β-cyfluthrin 12.7% a.i. Baythroid® XL	0.8 fl. oz. to 1.6 fl. oz.	2.0 fl. oz.	8.0 fl. oz.
	1.8 fl. oz. to 2.4 fl. oz.	3.0 fl. oz.	
	2.8 fl. oz.	3.5 fl. oz.	
	3.2 fl. oz.	4.0 fl. oz.	
Cyfluthrin 25% a.i. Baythroid® 2	0.80 fl. oz.	2.0 fl. oz.	8.0 fl. oz.
	1.6 fl. oz.	4.0 fl. oz.	
	2.0 fl. oz.	5.0 fl. oz.	
	2.8 fl. oz.	7.0 fl. oz.	
Cyfluthrin 20% a.i. Renounce® 20 WP	3.2 fl. oz. to 6.4 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
	1.0 fl. oz.	2.0 fl. oz.	
	2.0 fl. oz.	4.0 fl. oz.	
	2.5 fl. oz.	5.0 fl. oz.	
	3.0 fl. oz.	6.0 fl. oz.	
Cypermethrin 30.6% a.i. Ammo® 2.5 EC Up-Cyde 2.5 EC	3.5 fl. oz.	7.0 fl. oz.	8.0 fl. oz.
	4.0 fl. oz. to 8.0 fl. oz.	8.0 fl. oz.	
	2.0 fl. oz.	6.4 fl. oz.	
Bifenthrin 10% a.i. Brigade WSB	2.5 fl. oz. to 5.0 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
	6.4 fl. oz.	6.4 fl. oz.	
Bifenthrin 25.1% a.i. Capture® 2EC Brigade® 2EC Bifenthrin 2EC	8.0 fl. oz. to 32.0 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
	1.6 fl. oz.	4.0 fl. oz.	
	2.10 fl. oz.	5.3 fl. oz.	
	2.60 fl. oz.	6.4 fl. oz.	
Esfenvalerate 8.4% a.i. Asana® XL	3.20 fl. oz. to 32.0 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
	2.90 fl. oz.	2.4 fl. oz.	
	4.80 fl. oz.	4.0 fl. oz.	
	5.80 fl. oz.	4.8 fl. oz.	
Fenpropathrin 30.9% a.i. Danitol® 2.4 EC Spray Tame® 2.4 EC Spray	8.0 fl. oz.	6.4 fl. oz.	8.0 fl. oz.
	9.60 fl. oz. to 14.50 fl. oz.	8.0 fl. oz.	
	5-1/3 fl. oz. to 21-1/3 fl. oz.	8.0 fl. oz.	
Imidacloprid 17.4% a.i. Provado® 1.6	2.0 fl. oz.	4.0 fl. oz.	8.0 fl. oz.
	3.0 fl. oz.	6.0 fl. oz.	
	3.8 fl. oz.	7.6 fl. oz.	
	4.0 fl. oz. to 20.0 fl. oz.	8.0 fl. oz.	
Imidacloprid 75.0% a.i. Provado® Solupak 75%	0.8 fl. oz. to 1.0 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
Lambda-cyhalothrin 11% a.i. Warrior®	1.92 fl. oz.	2.4 fl. oz.	8.0 fl. oz.
	2.56 fl. oz.	3.2 fl. oz.	
	3.20 fl. oz.	4.0 fl. oz.	
	3.84 fl. oz.	4.8 fl. oz.	
Methomyl 29% a.i. Lannate® LV	12.0 fl. oz. to 48.0 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
	2.0 fl. oz.	4.0 fl. oz.	
Permethrin 38.4% Pounce® 3.2 EC Permethrin 3.2EC	4.0 fl. oz. to 16.0 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
	3.2 fl. oz.	4.0 fl. oz.	
Permethrin 25% a.i. Pounce® 25WP	6.4 fl. oz. to 32.0 fl. oz.	8.0 fl. oz.	8.0 fl. oz.
	3.2 fl. oz.	4.0 fl. oz.	
Zeta-cypermethrin 9.6% a.i. Mustang Max®	1.28 fl. oz. to 1.92 fl. oz.	2.0 fl. oz.	8.0 fl. oz.
	2.24 fl. oz. to 3.0 fl. oz.	3.0 fl. oz.	
	3.2 fl. oz. to 4.0 fl. oz.	4.0 fl. oz.	
Zeta-cypermethrin 18.1% a.i. Fury®	1.4 fl. oz.	2.6 fl. oz.	8.0 fl. oz.
	1.9 fl. oz.	3.5 fl. oz.	
	2.0 fl. oz.	3.8 fl. oz.	
	2.4 fl. oz.	4.5 fl. oz.	
	2.8 fl. oz.	5.3 fl. oz.	
	3.0 fl. oz.	5.6 fl. oz.	
	3.4 fl. oz.	6.4 fl. oz.	
	4.3 fl. oz.	8.0 fl. oz.	

CHEMIGATION USE DIRECTIONS

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.

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:

SPRINKLER CHEMIGATION:

1. 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 back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use 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.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Causes moderate eye irritation. Wear goggles or face shields. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile or neoprene rubber, or Viton.

Mixers, loaders, applicators and other handlers must wear the following: long-sleeved shirt and long pants; chemical-resistant gloves such as Barrier Laminate, Neoprene Rubber, Nitrile Rubber, or Viton; and shoes and socks.

In addition to the above PPE, mixers and loaders supporting aerial applications to forests and/or applicators using a high-pressure hand wand in an enclosed area must wear at least a NIOSH-approved particulate respirator with:

- Any R or P filter with NIOSH approval prefix TC-84A
- Or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

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 particulate respirator with:

- Any R or P filter with NIOSH approval prefix TC-84A
- Or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS

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

7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. 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.
9. Apply in accordance with tank mixing partner chemigation instructions.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS:

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) of the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
4. The pesticide injection pipeline must contain a functional normally closed, solenoid-operated valve located on the intake side of the injection pump and be 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.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Apply in accordance with tank mixing partner chemigation instructions.

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

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands with plenty of soap and water before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. 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 has the potential to 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.

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.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

FIRST AID

IF SWALLOWED:

- 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 a poison control center or a doctor.
- Do not give anything by mouth to an unconscious person.

IF IN EYES:

- 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 eyes.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:

- 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.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may call 1-888-740-8712.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry area. Always store pesticides in the original container. Store away from food and pet food.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Triple rinse as follows (for containers of 5 gallons or less): 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 $\frac{1}{4}$ 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.

Triple rinse as follows (for containers greater than 5 gallons): Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. 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.

exponent[®]
Insecticide Synergist

EPA Reg. No. 1021-1511
EPA Est. No. 1021-MN-2
Rev. 0720-1221



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