

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Washington, D.C. 20460

OFFICE OF PREVENTION. PESTICIDES AND TOXIC SUBSTANCES

May 17, 2006

Fred J. Pearson,
Regulatory Team Leader
NAFTA Insecticides
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419-8300

Subject: Amendment: Update/Add use directions to reflect use patterns approved for similar products.

EPA Reg. No. 100-998: Karate Insecticide

✓EPA Reg. No. 100-1097: Karate Insecticide with Zeon Technology EPA Reg. No. 100-1112: Warrior Insecticide with Zeon Technology

Your Submissions Dated January 20, 2006

Dear Mr. Pearson:

The labeling for the above referenced products, submitted in connection with registrations under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable with the following comments:

• Under Conditions of Sale and Limitation of Warranty and Liability, revise the statement "It is Syngenta's and Seller's intention that in no event shall Syngenta or the Seller be liable for any incidental ..." to read "To the extent allowable under State law, Syngenta or the Seller shall not be liable for any incidental ...".

Please make the changes to the products' labeling as indicated above, and submit two copies of the revised final printed label before you release the products for shipment and sale. A stamped copy of the accepted label is enclosed for your records.

If you have any questions concerning this action, please contact Dr. B. A. Akinlosotu at (703) 605-0653.

Sincerely,

George T. LaRocca, Product Manager 13

Insecticide Branch

Registration Division (7505C)

Enclosure:

# RESTRICTED USE PESTICIDE DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS, OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

# Karate® Insecticide with Zeon™ Technology

	Group	3	Insecticide
Active Ingredient:			
Lambda-cyhalothrin <sup>1</sup>			
$[1\alpha(S^*),3\alpha(Z)]$ -(±)-cyano-(3-phenoxyphenyl)			
trifluoro-1-propenyl)-2,2-dimethylcyclopropa	necarboxylate		<u>22.8%</u>
Other Ingredients:		— — — ·	77.2%
Total:			100.0%

Karate Insecticide with Zeon Technology contains 2.08 lbs. of active ingredient per gal. and is a capsule suspension.

<sup>1</sup>Synthetic pyrethroid

ACCEPTED with COMMENTS In EPA Letter Dated:

Contains petroleum distillate.

MAY 17 2006

KEEP OUT OF REACH OF CHILDREN.

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the posticide registered under EPA Rog. No.

## **WARNING / AVISO**

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 additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1097 EPA Est. No.XXXX

Product of XXXX

Formulated in the USA

SCP 1097A-M (draft-crops)

**Net Contents** 

	FIRST AID
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
	NOTE TO PHYSICIAN
Contains petroleu	um distillate – vomiting may cause aspiration pneumonia
Have the product doctor, or going f	container or label with you when calling a poison control center or or treatment.
	HOT LINE NUMBER
	4-Hour Medical Emergency Assistance (Human or Animal) emical Emergency Assistance (Spill, Leak, Fire or Accident) Call
	1-800-888-8372

# PRECAUTIONARY STATEMENTS

# **Hazards To Humans And Domestic Animals**

## WARNING/AVISO

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

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hrs. after exposure and may last 2 – 30 hrs., without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

# Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category G on an EPA chemical resistance category selection chart.

# Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, Category G, such as barrier laminate or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. 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.

When handlers use closed systems, enclosed cabs, or 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.
- Remove clothing 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 pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

For terrestrial uses: do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas

may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

IT IS SYNGENTA'S AND SELLER'S INTENTION THAT in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

## RESTRICTED USE PESTICIDE

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

## SHAKE WELL BEFORE USING.

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.

This labeling must be in the possession of the user at the time of application.

## 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 24 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 plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, Category G, such as barrier laminate or viton ≥ 14 mils
- Shoes plus socks

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

## **GENERAL DIRECTIONS FOR USE**

Initial and residual control are contingent upon thorough crop coverage. Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gals./A by air or 10 gals./A by ground unless otherwise specified in this label. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger larval stages), use of higher application volumes and/or higher use rates may improve initial and residual control.

For cutworm control, Karate Insecticide with Zeon Technology may be applied before, during, or after planting. For soil-incorporated applications, use higher rates for improved control.

## RESISTANCE MANAGEMENT

Karate Insecticide with Zeon Technology is a Group 3 Insecticide (contains the active ingredient lambda-cyhalothrin). Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

## SPRAY DRIFT PRECAUTIONS

Observe the Following Precautions When Spraying in the Vicinity of Aquatic Areas Such as Lakes; Reservoirs; Rivers; Permanent Streams, Marshes, or Natural Ponds; Estuaries and Commercial Fish Farm Ponds:

- Do not apply by ground within 25 ft., or by air within 150 ft. of lakes; reservoirs; rivers; permanent streams, marshes, pot holes, or natural ponds; estuaries and commercial fish farm ponds. Increase the buffer zone to 450 ft. when ultra-low volume (ULV) application is made.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 ft. above the crop canopy should be avoided.
- Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3 - 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- Do not cultivate within 10 ft. of the aquatic area so as to allow growth of a vegetative filter strip.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not make aerial or ground applications during temperature inversions. Inversions
  are characterized by stable air and increasing temperatures with height above the
  ground. Mist or fog may indicate the presence of an inversion in humid areas. The
  applicator may detect the presence of an inversion by producing smoke and
  observing a smoke layer near the ground surface.

In the State of New York, a 25 ft. vegetated, non-cropped buffer strip untraversed by drainage tiles must be maintained between a treated field and a coastal salt marsh or stream that drains into a coastal salt marsh, for both aerial or ground application. For aerial applications, the 25 ft. vegetated non-cropped buffer strip for runoff protection would be part of the larger 150 ft. buffer strip (or 450 ft. buffer strip for ULV application) required for spray drift.

## TANK MIX APPLICATION

When tank mixing with any other agricultural products, always add Karate Insecticide with Zeon Technology last. Fill the tank with  $^{1}/_{2}$  -  $^{2}/_{3}$  volume of the mixing diluent. Make sure all other products are fully dispersed in the mixing diluent before adding the recommended rate of Karate Insecticide with Zeon Technology to the tank. Add the remainder of the mixing diluent volume. It is recommended that mixing and spray equipment have continuous agitation for best results. Follow the precautions and limitations of the most restricted product in the tank mixture.

While Karate Insecticide with Zeon Technology has good flexibility for tank mixing with other agricultural products, a jar test for physical compatibility is recommended for untried mixtures, using proper ratios and mixing sequences of all ingredients to be included in the mixture.

Karate Insecticide with Zeon Technology is an aqueous based formulation. It is recommended that no type of non-emulsifiable oils be used in combination with Karate Insecticide with Zeon Technology. If adjuvants are used, use only:

- Nonionic Surfactant (NIS) containing at least 75% surface agent, or
- Nonphytotoxic Crop Oil Concentrate (COC), including once-refined Vegetable Oil Concentrate (VOC), or,
- Methylated Sunflower Oils (MSO) containing a minimum of 17% emulsifier.

Adjuvants other than NIS or COC may be used providing the product meets the following criteria:

- 1. Contains only EPA exempt ingredients.
- 2. Is nonphytotoxic to the target crop.
- 3. Is compatible in mixture. (May be established through a jar test.)
- Is supported locally for use with Karate Insecticide with Zeon Technology on the target crop through proven field trials and through university and extension recommendations.

In addition, the following may be used as diluents:

- Crop Oil Concentrate
- Methylated Sunflower Oils
- Urea-Ammonium Nitrate

It is recommended that the following not be used in combination with Karate Insecticide with Zeon Technology as diluents or adjuvants:

- Nonemulsifiable oils.
- Diesel Fuel
- Straight Mineral Oil

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#### CHEMIGATION

# **Sprinkler Irrigation Application**

Apply Karate Insecticide with Zeon Technology at rates and timing described elsewhere in this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types, (see TANK MIX APPLICATION) rates and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with Karate Insecticide with Zeon Technology applied by chemigation.

Check the irrigation system to insure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period.

Apply by injecting the recommended rate of Karate Insecticide with Zeon Technology into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1-0.2 acre-inch of water. In general, use the least amount of water required for proper distribution and coverage. It is recommended that the product be injected into the main irrigation line ahead of a right angle turn in the line to insure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

In addition to the above recommendations, if application is being made during a normal irrigation set of a stationary sprinkler, the recommended rate of Karate Insecticide with Zeon Technology for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

It is not recommended that Karate Insecticide with Zeon Technology be applied through an irrigation system connected to a public water system. 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.

# Use Precautions - Sprinkler Irrigation Applications

- A. Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

- C. If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers, or other experts.
- D. 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.
- E. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- F. 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.
- G. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- H. 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.
- 1. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- J. 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.
- K. 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 are capable of being fitted with a system interlock.
- L. Any alternatives to the above required safety devices must conform to the list of EPA-approved alternative devices.
- M. Do not apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.
- N. Do not apply through chemigation systems connected to public water systems.

# SPECIFIC USE DIRECTIONS

# AGRICULTURAL USES

		Rat	e
Crop	Target Pests	lb. a.i./A	fl. oz./A
ALFALFA AND ALFAL	FA GROWN FOR SEED	<del> </del>	
	Alfalfa Caterpillar Army Cutworm Cutworm species Green Cloverworm Leafhopper species Looper species Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworm species	0.015 - 0.025	0.96 — 1.60
	Alfalfa Seed Chalcid (Adult) Alfalfa Weevil Armyworm Bean Leaf Beetle (Adult) Blister Beetle species Blue Alfalfa Aphid Clover Leaf Weevil species Clover Root Borer (Adult) Clover Stem Borer (Adult) Corn Earworm Cowpea Aphid Cowpea Curculio (Adult) Cowpea Weevil (Adult) Cucumber Beetle species (Adult) Egyptian Alfalfa Weevil Fall Armyworm¹ Grape Colaspis (Adult) Graen June Beetle (Adult) Green Peach Aphid³ Japanese Beetle (Adult) Meadow Spittlebug Mexican Bean Beetle Pea Aphid Pea Weevil (Adult)  Plant Bug species including Lygus species³ Spotted Alfalfa Aphid Stink Bug species Sweet Clover Weevil (Adult) Thrips species² Western Yellowstriped Armyworm Whitefringed Beetle species (Adult) Yellowstriped Armyworm	0.02 0.03	1.28 - 1.92
	Beet Armyworm <sup>1,3</sup> Blotch Leafminer <sup>3</sup> Spider Mites <sup>2</sup>	0.03	1.92

- Apply only to fields planted to pure stands of alfalfa.
- Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum
  of 2 gals. /A by air or 10 gals./A by ground. When foliage is dense and/or pest populations are high 5–10 gals./A
  by air or 20 gals./A by ground and higher use rates are recommended. Use higher rates for increased residual
  control.
- Avoid application when bees are actively foraging by applying during the early morning or during the evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. It may be advisable to remove bee shelters during and for 2–3 days following application. Avoid direct application to bee shelters.
- Do not apply more than 0.03 lb. a.i. (0.12 pts.) /A per cutting.
- Do not apply more than 0.12 lb. a.i. (0.48 pts.) /A per season.
- Do not apply within 1 day of harvest for forage or within 7 days of harvest for hay.

<sup>&</sup>lt;sup>1</sup> Use higher rates for large larvae.

<sup>&</sup>lt;sup>2</sup> Suppression only.

<sup>&</sup>lt;sup>3</sup> See Resistance statement under General Directions for Use.

<sup>&</sup>lt;sup>4</sup>Does not include Western Flower Thrips.

Crop	Target Pests	Rate		
		lb. a.i./A	fl. oz./A	
CANOLA				
	Armyworm species Cabbage Seedpod Weevil Cutworm species Diamondback Moth Flea Beetle Grasshoppers Looper species Lygus Bug	0.015 0.03	0.96 1.92	
	Cabbage Aphid	0.03	1.92	

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply a minimum of 2 gals. of water/A.
- Do not apply within 7 days of harvest.
- Do not apply more than 0.09 lb. a.i. (0.36 pts.) /A per year.

		Rate		
Crop	Target Pest	lb. a.i./A	fl.oz./A	
CEREAL GRAINS				
Corn (at Plant): Field Corn Popcorn Seed Corn Sweet Corn	Corn Rootworm Larvae:  Mexican Northern Southern Western Cutworm species Lesser Cornstalk Borer Red Imported Fire Ant <sup>1</sup> Seedcorn Beetle Seedcorn Maggot White Grub species Wireworm species	0.005 fbs. a.i. per .1000 ft .of row <sup>2</sup>	0.33 fl. oz. per 1000 ft. of row <sup>2</sup>	

- Banded Applications Apply at planting as a 5–7 inch T-band sprayed across the open seed furrow between the furrow openers and the press wheels or as a band application behind the press wheel.
- In-Furrow Applications Apply into the seed furrow through spray nozzles or microtubes, behind the planter furrow openers and in front of the press wheel.
- Apply a minimum of 3 gals, finished spray/A.
- Do not harvest or graze livestock or cut treated crops for feed within 21 days of at plant application.
- Do not apply more than 0.09 lb. a.i. (0.36 pts.) /A per crop at plant.
- For field corn, popcorn, and seed corn **do not** apply more than 0.12 lb. a.i. (0.48 pts.)/A per crop from at plant and foliar applications. For sweet corn **do not** apply more than 0.48 lb. a.i. (1.92 pts.)/A per crop from at plant and foliar applications.

# <sup>1</sup>Suppression only.

²Lbs. a.i. ar	nd fl. oz./A of Ka		Vith Zeon Techno Prious Row Spacir		33 fl. oz./1000 ft.	of Row for
Row Spacing	40"	38"	36"	34"	32"	30"
Linear Ft./A	13,068	13,756	14,520	15,374	16,335	17,424
Lbs. a.i./A	0.067	0.07	0.075	0.079	0.084	0.09
Fl. oz./A	4.3	4.55	4.8	5.05	5.4	5.75

		Ra	te
Crop CEREAL GRAINS	Target Pests	lb. a.i./A	fl. oz./A
Corn (Foliar) Field Corn Popcorn Seed Corn	Corn Earworm <sup>1</sup> Cutworm species Green Cloverworm Meadow Spittlebug Western Bean Cutworm <sup>1</sup>	0.015 ~ 0.025	0.96 – 1.60
	Armyworm <sup>2</sup> Bean Leaf Beetle Bird Cherry-Oat Aphid <sup>3</sup> Cereal Leaf Beetle Corn Leaf Aphid <sup>3</sup> Corn Rootworm Beetle (Adult): Mexican Northern Southern Western English Grain Aphid <sup>3</sup> European Corn Borer <sup>1</sup> Fall Armyworm <sup>2</sup> Flea Beetle species Grasshopper species Hop Vine Borer <sup>1</sup> Japanese Beetle (Adult) Lesser Cornstalk Borer Sap Beetle (Adult) Seedcorn Beetle Southwestern Corn Borer <sup>1</sup> Stalk Borer <sup>1</sup> Stink Bug species Tobacco Budworm <sup>1,4</sup> Webworm species Yellowstriped Armyworm <sup>2</sup>	0.02 ~ 0.03	1.28 – 1.92
	Beet Armyworm <sup>4</sup> Chinch Bug Green Bug <sup>3,4</sup> Mexican Rice Borer <sup>1</sup> Rice Stalk Borer <sup>1</sup> Southern Corn Leaf Beetle <sup>3</sup> Sugarcane Borer <sup>1</sup>	0.03	1.92

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 7 or more days.
   Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gals. of water/A.



- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small corn.
   Direct spray to the base of corn plants. Repeat applications at 3-5-day intervals if needed. Karate Insecticide with Zeon Technology may only suppress heavy infestations and/or subsequent migrations.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 0.03 lb. a.i. (1.92 fl. oz.) /A.
- . Do not apply within 21 days of harvest.
- Do not allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals
  within 1 day after last treatment. Do not feed treated corn fodder or silage to meat or dairy animals within 21
  days after last treatment.
- Do not apply more than 0.12 lb. a.i. (0.48 pts.) /A per crop from at plant and foliar applications.
- **Do not** apply more than 0.06 lb. a.i. (0.24 pts.)/A after silk initiation. **Do not** apply more than 0.03 lb. a.i. (0.12 pts.)/A after corn has reached the milk stage (yellow kernels with milky fluid).

<sup>&</sup>lt;sup>1</sup>For control before the larva bores into the plant stalk or ear.

<sup>&</sup>lt;sup>2</sup>Use higher rates for large larvae.

<sup>&</sup>lt;sup>3</sup>Suppression only.

<sup>&</sup>lt;sup>4</sup>See Resistance statement under General Directions for Use.

		Ra	te
Сгор	Target Pests	lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Sweet Corn (Foliar)	Aphid species <sup>2,3</sup> Armyworm <sup>1</sup> Aster Leafhopper Beet Armyworm <sup>1,3</sup> Chinch Bug Common Cornstalk Borer  Corn Earworm Corn Rootworm Beetle (Adult):     Mexican     Northern     Southern     Western  Cutworm species European Corn Borer Fall Armyworm <sup>1</sup> Flea Beetle species Grasshopper species Japanese Beetle (Adult) Sap Beetle (Adult) Southern Armyworm <sup>1</sup> Southwestern Corn Borer Spider Mite species <sup>2</sup> Stink Bug species Tarnished Plant Bug Webworm species Western Bean Cutworm Yellowstriped Armyworm <sup>1</sup>	0.02 - 0.03	1.28 ~ 1.92
	Corn Silkfly (Adult) <sup>2</sup>	0.03	1.92

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 or more days.
   Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods and should be targeted for control before insects enter the stalk or ear.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage and ears (if present). When applying by air, apply in a minimum of 2 gals, of water/A.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 0.025 lb. a.i. (1.60 fl. oz.) /A.
- . Do not apply within 1 day of harvest.
- Do not allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals
  within 1 day after last treatment. Do not feed treated corn fodder or silage to meat or dairy animals within 21
  days after last treatment.
- Do not apply more than 0.48 lb. a.i. (1.92 pts.) /A per crop from at plant and foliar applications.

<sup>&</sup>lt;sup>1</sup>Use higher rates for large larvae.

<sup>&</sup>lt;sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

		R	ate
Crop	Target Pests	ib. a.i./A	fl. oz./A
CEREAL GRAINS			
Rice	Bird Cherry-Oat Aphid Chinch Bug Fall Armyworm Grasshopper species Greenbug Leafhopper species Rice Stink Bug Rice Water Weevil (adult) Sharpshooter species True Armyworm Yellow Sugarcane Aphid Yellowstriped Armyworm	0.025 - 0.04	1.6 - 2.56
	European Corn Borer <sup>1</sup> Mexican Rice Borer <sup>1</sup> Rice Seed Midge <sup>1</sup> Rice Stalk Borer <sup>1</sup> Sugarcane Borer <sup>1</sup>	0.03 ~ 0.04	1.92 – 2.56

- Apply as required by scouting. Timing and frequency of application should be based upon insect populations
  reaching locally determined economic thresholds. Determine the need for repeat applications, usually at intervals
  of 5 7 days, by scouting.
- Karate Insecticide with Zeon Technology can be safely used when propanil products are being used for weed control.
- Apply by air or by ground equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water (or total carrier volume) /A, but ensure sufficient volume is used to provide adequate coverage. In addition, adding an emulsified crop oil (e.g., 1 pt. /A) when lower aerial application volumes are used is recommended to help improve coverage, reduce evaporation and improve efficacy.
- For control of rice water weevil in dry-seeded rice, make a foliar application as indicated by scouting for the
  presence of adults and/or feeding scars, usually within a time-frame of 0-5 days after permanent flood
  establishment. Do not exceed 10 days from starting permanent flood until insecticide application unless scouting
  indicates weevils have not been previously present. Adults may also be treated at later stages of rice
  development to reduce overwintering populations.
- For control of rice water weevil in water-seeded rice, make the first foliar application after pinpoint flood as
  indicated by scouting for the presence of adults and/or feeding scars, usually when rice has emerged 0.5 inch
  above the waterline. Under conditions of prolonged migration into the field, start field scouting for rice water
  weevil adults and/or feeding scars 3-5 days after the initial treatment and, if needed, apply a second application
  within 7-10 days of the first application. Adults may also be treated at later stages of rice development to reduce
  overwintering populations.
- California: In addition to above directions for control of rice water weevil in water seeded rice, Karate Insecticide
  with Zeon Technology may be applied at the 1-3 leaf growth stage, with the majority at the 2 leaf growth stage.
  Adults are vulnerable on levees and in the water. Larvae are vulnerable while feeding on the leaf prior to entering
  the soil. Monitor for adults, based upon field history and density of population. Monitor field edges and levee
  areas for adults. Treat in the following manner: a) spray the inside perimeter of the field, or b) spray the entire
  field
- Greenbug is known to have many biotypes. Karate Insecticide with Zeon Technology may only provide suppression. If satisfactory control is not achieved with the first application of Karate Insecticide with Zeon Technology, a resistant biotype may be present. Use alternate chemistry for control.
- For control of stem borers, scout fields, when rice growth is near panicle differentiation, for early symptoms of damaging populations exhibited as discoloration (orange-tan) around the junction of the leaf sheath and leaf blade which is caused by feeding of young larvae within the sheath. Applications must be made before larvae bore into rice stems. Make the first application at panicle differentiation to 2 inch panicle for partial control. Make

the second application at boot to heading for maximum control. All rice varieties are susceptible to stem borer damage, but Cocodrie and Priscilla are particularly susceptible.

Do not release flood water within 7 days of an application.

Do not apply more than 0.12 lb. a.i. (0.48 pt.) /A per season.

Do not apply more than 0.04 lb. a.i. (0.16 pt.)/A within 21 to 27 days of harvest.

Do not apply within 21 days of harvest.

Do not use treated rice fields for the aquaculture of edible fish and crustacea.

Do not apply as an ultra-low volume (ULV) spray.

<sup>1</sup>For control before the larvae bores into the plant stalk.



		Ra	ate
Crop	Target Pests	lb. a.i./A	fl. oz./A
CEREAL GRAINS			
Sorghum (Grain)	Cutworm species Sorghum Midge	0.015 - 0.02	0.96 - 1.28
	Armyworm Beet Armyworm <sup>3</sup> Corn Earworm European Corn Borer <sup>2</sup> Fall Armyworm <sup>1</sup> Flea Beetle species Grasshopper species Lesser Cornstalk Borer <sup>2</sup> Southwestern Corn Borer <sup>2</sup> Stink Bug species Webworm species Yellowstriped Armyworm <sup>1</sup>	0.02 – 0.03	1.28 – 1.92
	Chinch Bug Mexican Rice Borer <sup>2</sup> Rice Stalk Borer <sup>2</sup> Sugarcane Borer <sup>2</sup>	0.03	1.92

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gals, of water /A.
- For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5-day intervals if needed.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3 5-day intervals if needed. Karate Insecticide with Zeon Technology may only suppress heavy infestations and/or subsequent migrations.
- Do not apply more than 0.08 lb, a.i. (0.32 pt.) /A per season.
- Do not apply more than 0.06 lb. a.i. (0.24 pt.) /A per season after crop emergence.
- Do not apply more than 0.02 lb. a.i. (0.08 pt.) /A per season once crop is in soft-dough stage.
- Do not apply within 30 days of harvest.

<sup>2</sup>For control before the larva bores into the plant stalk.

<sup>&</sup>lt;sup>1</sup>Use higher rates for large larvae.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

Crop	Target Pests	Ra	te
CEREAL GRAINS		lb. a.i./A	fl. oz./A
Triticale Wheat Wheat Hay	Army Cutworm Cutworm species	0.015 0.025	0.96 – 1.60
	Armyworm Bird Cherry-Oat Aphid <sup>1</sup> Cereal Leaf Beetle English Grain Aphid <sup>1</sup> Fall Armyworm Fiea Beetle species Grasshopper species Hessian Fly <sup>4</sup> Orange Blossom Wheat Midge Russian Wheat Aphid <sup>1</sup> Stink Bug species Yellowstriped Armyworm	0.02 - 0.03	1.28 – 1.92
	Grass Sawfly	0.025 - 0.03	1.60 - 1.92
	Chinch Bug Corn Leaf Aphid <sup>2</sup> Greenbug <sup>1,3</sup> Mite species <sup>2</sup>	0.03	1.92

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.
- For chinch bug control, repeat applications at 3-5-day intervals if needed. Karate Insecticide with Zeon Technology may only suppress heavy infestations and/or migrations.
- Greenbug is known to have many biotypes. Karate Insecticide with Zeon Technology may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.
- Do not apply within 30 days of harvest.
- Do not allow livestock to graze in treated areas or harvest treated wheat forage as feed for meat or dairy animals
  within 7 days after treatment. Do not feed treated straw to meat or dairy animals within 30 days after the last
  treatment.
- Do not apply more than 0.06 lb. a.i. (0.24 pts.) /A per season.

<sup>1</sup>Best control is obtained before insects begin to roll leaves. Once crop has started to boot, Karate Insecticide with Zeon Technology may provide suppression only. Higher rates and increased coverage will be necessary. <sup>2</sup>Suppression only.

<sup>3</sup>See Resistance statement under General Directions for Use.

<sup>4</sup>Make applications when adults emerge.

			Rate		
Сгор	Target Pests	lb. a.i./A	fl. oz./A		
COLE CROPS(HEAD AND ST	EM BRASSICA)				
Broccoli Brussels Sprouts Cabbage Cavalo Broccolo Cauliflower Chinese Broccoli (gai lon) Chinese Cabbage (napa)	Alfalfa Looper Cabbage Looper Cabbage Webworm Cutworm species Imported Cabbageworm Southern Cabbageworm	0.015 – 0.025	0.96 1.60		
Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphid species <sup>2,3</sup> Armyworm  Beet Armyworm <sup>1,3</sup> Corn Earworm Diamondback Moth <sup>3</sup> Fall Armyworm <sup>1</sup> Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Plant Bug species including Lygus species <sup>3</sup> Spider Mite species <sup>2</sup> Stink Bug species Thrips species <sup>2</sup> Vegetable Weevil (Adult) Whitefly species <sup>2,3</sup> Yellowstriped Armyworm	0.02 - 0.03	1.28 - 1.92		

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A. **Do not** apply within 1 day of harvest.
- Do not apply more than 0.24 lb. a.i. (0.96 pts.) /A per season.

<sup>&</sup>lt;sup>1</sup>For control of first and second instar only. <sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.



		Rate	
Crop COTTON	Target Pests	lb. a.i./A	fl. oz./A
<u>oorron</u>	Cutworm species Soybean Thrips Tobacco Thrips	0.015 - 0.02	0.96 1.28
	Cabbage Looper Cotton Fleahopper Cotton Leafperforator Cotton Leafworm Lygus Bug species <sup>3</sup> Pink Bollworm Saltmarsh Caterpillar	0.02 - 0.03	1.28 – 1.92
	Bandedwing Whitefly <sup>2,3</sup> Beet Armyworm <sup>1,3</sup> Boll Weevil Brown Stink Bug Cotton Aphid <sup>2,3</sup> Cotton Bollworm European Corn Borer Fall Armyworm Green Stink Bug Southern Green Stink Bug Sweet Potato Whitefly <sup>2,3</sup> Tobacco Budworm <sup>3</sup> Twospotted Spider Mite <sup>2</sup>	0.025 ~ 0.04	1.60 – 2.56

- Apply as required by scouting, usually at intervals of 5 7 days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage.
- Applications may also be made with equipment adapted and calibrated for ULV sprays. Karate Insecticide with Zeon Technology may be mixed with once-refined vegetable oil and applied in a minimum of at least one qt. of finished spray /A.
- Under light bollworm/budworm infestation levels, 0.02 lb. a.i./A may be applied in conjunction with intense field monitoring.
- For boll weevil control, spray on a 3-5 day schedule.
- When applied according to label directions for control of cotton bollworm and tobacco budworm, Karate Insecticide with Zeon Technology also provides ovicidal control of unhatched Heliothine species eggs.
- . Do not apply within 21 days of harvest.
- Do not graze livestock in treated areas.
- Do not apply more than 0.2 lb. a.i. (0.8 pt.) /A per season.

**Do not** make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

<sup>1</sup>For control of the first and second instar only.

<sup>2</sup>Suppression only.

<sup>3</sup>See Resistance statement under General Directions for Use.

		Ra	te
Crop	Target Pests	lb. a.i./A	fl. oz./A
Eggplant Ground cherry Pepino Peppers (bell and	Cabbage Looper Cutworm species Hornworm species	0.015 – 0.025	0.96 – 1.60
nonbell) Tomatillo Tomato	Aphid species <sup>2,3</sup> Beet Armyworm <sup>1,3</sup> Blister Beetle species Colorado Potato Beetle <sup>3</sup> Cucumber Beetle species (Adult) European Corn Borer <sup>4</sup> Fall Armyworm <sup>1</sup> Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Leafminer species <sup>2</sup> Meadow Spittlebug Pepper Weevil (Adult) <sup>2</sup> Plant Bug species Southern Armyworm <sup>1</sup> Spider Mite species <sup>2</sup> Stalk Borer <sup>4</sup> Stink Bug species Thrips <sup>5</sup> Tobacco Budworm <sup>3</sup> Tomato Fruitworm Tomato Psyllid <sup>2,3</sup> Vegetable Weevil (Adult) Whitefly species <sup>2,3</sup> Yellowstriped Armyworm <sup>1</sup>	0.02 - 0.03	1.28 – 1.92

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals, of water/A.
- . Do not apply within 5 days of harvest.
- Do not apply more than 0.36 lb. a.i. (1.44 pts.) /A per season.

<sup>&</sup>lt;sup>1</sup>For control of first and second instar only.

<sup>&</sup>lt;sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

<sup>&</sup>lt;sup>4</sup>For control before the larva bores into the plant stalk or fruit.

<sup>&</sup>lt;sup>5</sup>Does not include Western Flower Thrips.

		Rate	
Crop	Target Pests	lb. a.i./A	fl. oz./A
LEGUME VEGETABLES	(BEANS AND PEAS)		<del> </del>
Edible Podded (Only)	Cutworm species Green Cloverworm	0.015 - 0.025	0.96 – 1.60
Canavalia ensiformis -jackbean	Imported Cabbageworm Mexican Bean Beetle Saltmarsh Caterpillar		
Canavalia gladiata -sword bean	Velvetleaf Caterpillar		
Glycine max -soybean (immature seed)	Alfalfa Caterpillar Aphid species <sup>4</sup> Armyworm <sup>2</sup> Bean Leaf Beetle	0.02 - 0.03	1.28 – 1.92
Edible Podded, Succulent Shelled or Dried Shelled	Bean Leafskeletonizer Blister Beetle species Corn Earworm Corn Rootworm Beetle species (Adult)		
Cajanus cajan – Pigeon pea	Cucumber Beetle species (Adult) Curculio and Weevil species <sup>1</sup> (foliage and pod feeding adults and larvae)		
includes: field,	European Corn Borer Fall Armyworm <sup>2</sup> Floo Bootle appoint (Adult)		
	Flea Beetle species (Adult) Flea Hopper species Grasshopper species		
	Japanese Beetle (Adult) Leafhopper species	ļ	
Pisum species – includes: dwarf,	Leaftier species Looper Species		
field, garden, green, snow and sugar snap	Meadow Spittlebug Painted Lady Butterfly (Larva) Plant Bug species including Lygus species Stalk Borer		
Viana species –	Stink Bug species Threecornered Alfalfa Hopper		
asparagus, moth,	Thrips species <sup>4,5</sup> Tobacco Budworm <sup>4</sup> Webworm species		
yardlong beans, black–eye pea,	Western Bean Cutworm Western Yellowstriped Armyworm <sup>2</sup>		
catjang, Chinese longbean, cowpea, Crowder pea, and Southern pea	Yellowstriped Armyworm <sup>2</sup>		

		Ra	te
Crop	Target Pests	lb. a.i./A	fl. oz./A
LEGUME VEGETABLE	S (BEANS AND PEAS)		
(continued) Succulent Shelled or Dried Shelled  Vicia faba. — broadbean (favabean)	Beet Armyworm <sup>3,4</sup> Leafminer species <sup>3,4</sup> Lesser Cornstalk Borer <sup>3</sup> Soybean Looper <sup>3,4</sup> Spider Mite species <sup>3</sup> Whitefly species <sup>3,4</sup>	0.03	1.92
Dried Shelled (Only)			
Cicer arietimum – chickpea (garbonzo bean)			
Cyamopsis tetragonoloba guar			
Lablab pupureus – Lablab bean (hyacinth bean)			
Lupinus species — includes: grain, sweet, white and sweet white lupines			
Lens esculata – Lentils			

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.
- For edible podded and succulent shelled legume vegetables, do not apply within 7 days of harvest.
- For dried shelled legume vegetables, do not apply within 21 days of harvest.
- Do not apply more than 0.12 lb .a.i. (0.48 pts.) /A per season.
- For succulent and dried shelled peas and beans, do not graze livestock in treated areas or harvest vines for forage or hay.

<sup>1</sup> For control before the larva bores into the plant stalk or pods.

<sup>&</sup>lt;sup>2</sup>Use higher rates for large larvae.

<sup>&</sup>lt;sup>3</sup>For suppression only. <sup>4</sup>See Resistance statement under General Directions for Use.

<sup>&</sup>lt;sup>5</sup> Does not include Western Flower Thrips.

Crop	Target Pests ·	Ra	te
LEGUME VEGI	ETABLES (SOYBEANS)	lb. a.i./A	fl. oz./A
Soybeans	Bean Leaf Beetle Cabbage Looper Corn Earworm Corn Rootworm Beetle (Adult):  Mexican Northern Southern Western Cutworm species Green Cloverworm Mexican Bean Beetle Painted Lady (Thistle) Caterpillar Potato Leafhopper Saltmarsh Caterpillar Soybean Aphids Threecornered Alfalfa Hopper Thrips species Velvetbean Caterpillar Woollybear Caterpillar	0.015 - 0.025	0.96 – 1.60
	Armyworm <sup>1</sup> Blister Beetle species European Corn Borer Fall Armyworm <sup>1</sup> Grasshopper species Japanese Beetle (Adult) Plant Bug species Silverspotted Skipper Stink Bug species Tobacco Budworm <sup>3</sup> Webworm species Yellowstriped Armyworm <sup>1</sup>	0.025 - 0.03	1.60 – 1.92
	Beet Armyworm <sup>2,3</sup> Lesser Cornstalk Borer <sup>2</sup> Soybean Looper <sup>2,3</sup> Spider Mite species <sup>2</sup>	0.03	1.92

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Do not graze or harvest treated soybean forage, straw, or hay for livestock feed.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals, of water /A.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program use a minimum of 0.02 lb. a.i. (1.28 fl. oz.) /A.
- . Do not apply within 45 days of harvest.
- Do not apply more than 0.06 lb. a.i. (0.24 pt.) /A per season.

<sup>&</sup>lt;sup>1</sup>Use higher rates for large larvae.

<sup>&</sup>lt;sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

<sup>&</sup>lt;sup>4</sup>Use lower rates for early season applications and/or lighter populations.

<sup>&</sup>lt;sup>5</sup> Does not include Western Flower Thrips.

		Rate	
Crop	Target Pests	lb. a.i./A	fl. oz./A
ETTUCE (HEAD AND	LEAF)		
	Alfalfa Looper Cabbage Looper Cutworm species Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar	0.015 0.025	0.96 - 1.60
	Aphid species <sup>2,3</sup> Armyworm Beet Armyworm <sup>1,3</sup> Corn Earworm Diamondback Moth <sup>3</sup> European Corn Borer Fall Armyworm <sup>1</sup> Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Plant Bug species including Lygus species <sup>3</sup> Southern Armyworm Spider Mite species Tobacco Budworm <sup>3</sup> Vegetable Weevil (Adult) Whitefly species <sup>2,3</sup>	0.02 ~ 0.03	1.28 – 1.92

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.
- Do not apply within 1 day of harvest.
- Do not apply more than 0.3 lb. a.i. (1.2 pts.)/A per season.

<sup>&</sup>lt;sup>1</sup>For control of first and second instar only.

<sup>&</sup>lt;sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

	Target Pests	Ra	Rate	
Crop		lb. a.i./A	fl. oz./A	
ONION (BULB) AND GA	RLIC			
	Cutworm species Leafminer species (Adult) Onion Maggot (Adult) Seedcorn Maggot (Adult)	0.015 - 0.025	0.96 1.60	
	Aphid species <sup>2</sup> Armyworm species <sup>1</sup> Flower Thrips <sup>2,3</sup> Onion Thrips <sup>3</sup> Plant Bug species Stink Bug species Tobacco Thrips <sup>3</sup> Western Flower Thrips <sup>2,3</sup>	0.02 – 0.03	1.28 – 1.92	

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Use the higher label rates as thrips population increases and avoid rescue situations.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.
- For thrips control by aerial application, the addition of 1% COC v/v, 1/4% NIS v/v or a silicone adjuvant (follow manufacturers use directions) may enhance the deposition of the spray and increase plant coverage.
- . Do not apply within 14 days of harvest.
- Do not apply more than 0.24 lb. a.i. (0.96 pts.) /A per season.

<sup>&</sup>lt;sup>1</sup>For control of the first and second instar only.

<sup>&</sup>lt;sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

Crop	Target Pests	Rate Rate	
		lb. a.i./A	fl. oz./A
Peanuts	Cutworm species	0.015 - 0.025	0.96 - 1.60
	Green Cloverworm	1	
	Potato Leafhopper	į	
	Rednecked Peanut Worm	ì	
	Threecornered Alfalfa Hopper	į	
	Velvetbean Caterpillar		
	Bean Leaf Beetle	0.02 - 0.03	1.28 - 1.92
	Corn Earworm		
	Fall Armyworm <sup>1</sup>		
	Grasshopper species		
	Southern Corn Rootworm (Adult)	<del>}</del>	
	Stink Bug species	}	
	Tobacco Thrips	į	
	Vegetable Weevil	1	
	Whitefringed Beetle (Adult)		
	Aphid species <sup>2</sup>	0.03	1.92
	Beet Armyworm <sup>2,3</sup>		
	Lesser Cornstalk Borer <sup>2</sup>		
	Soybean Looper <sup>2,3</sup>		
	Spider Mite species <sup>2</sup>		

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water /A.
  Do not apply within 14 days of harvest.
- Do not apply more than 0.12 lb. a.i. (0.48 pt.) /A per season.

<sup>&</sup>lt;sup>1</sup>Use higher rates for large larvae.

<sup>&</sup>lt;sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use

		Rate	
Crop	Target Pests	lb. a.i./A	fl. oz./A
POME FRUITS			
Apple Crabapple Loquat Mayhaw Oriental Pear Pear Quince	Apple Aphid Apple Maggot (Adult) Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle Leafhopper species Leafroller species Leafroller species Lesser Appleworm Omnivorous Leafroller Orange Tortrix Oriental Fruit Moth Pear Psylla¹ Pear Sawfly Periodical Cicada Plant Bug species Plum Curculio Rosy Apple Aphid San Jose Scale (fruit infestations only) Spirea Aphid¹ Stink Bug species Tent Caterpillar species Tent Caterpillar species Tree Borer species Tufted Apple Budworm Webworm species	0.02 — 0.04	1.28 – 2.56

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and IPM recommendations.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area.
   When applying by air, apply in a minimum of 5 gals. of water/per acre, but use higher volumes as appropriate for thorough coverage.
- . Do not apply within 21 days of harvest.
- Do not apply more than 0.2 lb. a.i. (0.80 pts.) /A per year. Do not apply more than 0.16 lb. a.i. (0.64 pts.) /A per year post bloom.

<sup>&</sup>lt;sup>1</sup>Suppression only

	Target Pests	Rate	
Crop		lb. a.i./A	fl. oz./A
STONE FRUITS	<del></del>	<del></del>	<del> </del>
Apricot Chickasaw Plum Damson Plum Japanese Plum Nectarine Peach Plum Plumcot Prune Sweet and Tart Cherry	American Plum Borer Apple Maggot (Adult) Black Cherry Aphid Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle June Beetle Leafhopper species Leafroller species Oriental Fruit Moth Peach Twig Borer Peachtree Borer species Pear Sawfly Periodical Cicada Plant Bug species Plum Curculio Rose Chafer Stink Bug species Tent Caterpillar species Thrips species	0.02 0.04	1.28 – 2.56

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold and IPM recommendations.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area.
   When applying by air, apply a minimum of 5 gals. of water/per acre, but use higher volumes as appropriate for thorough coverage.
- Do not apply within 14 days of harvest.
- Do not apply more than 0.2 lb. a.i. (0.80 pts.) /A per year. Do not apply more than 0.16 lb. a.i. (0.64 pts.) /A per year post bloom.

Crop	Target Pests	Rate	
		lb. a.i./A	fl. oz./A
Sugarcane	Mexican Rice Borer <sup>1</sup> Pygmy Mole Cricket Rice Stalk Borer <sup>1</sup> Sugarcane Aphid <sup>3</sup> Sugarcane Beetle (Adult) <sup>2</sup> Sugarcane Borer <sup>1</sup> West Indian Cranefly Yellow Sugarcane Aphid <sup>3</sup>	0.025 0.04	1.60 – 2.56

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply a minimum of 2 gal. of water /A.
- Do not apply within 21 days of harvest.
- Do not apply more than 0.16 lb. a.i. (0.64 pt.) /A per season.

<sup>&</sup>lt;sup>1</sup>For control before the larva bores into the plant stalk.
<sup>2</sup>Suppression only of beetles active above ground.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

	j	Ra	te
Crop_	Target Pests	lb. a.i./A	fl. oz./A
SUNFLOWER	<del></del>		
	Cutworm species Sunflower Beetle	0.015 - 0.025	0.96 – 1.60
	Banded Sunflower Moth Fall Armyworm <sup>1</sup> Grasshopper species Head-Clipper Weevil (Adult) Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Painted Lady (Thistle) Caterpillar Seed Weevil (Adult) Spotted Cabbage Looper Stem Weevil (Adult) Stink Bug species Sunflower Maggot (Adult) Sunflower Moth Woollybear Caterpillar	0.02 – 0.03	1.28 – 1.92
	Beet Armyworm <sup>2,3</sup> Spider Mite species <sup>2</sup>	0.03	1.92

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water to obtain full coverage of sunflower heads and/or foliage. When applying by air, apply in a minimum of 2 gals. of water/A.
- Do not apply within 45 days of harvest.
- Do not apply more than 0.12 lb. a.i. (0.48 pts.) /A per season. Do not apply more than 0.09 lb. a.i. (0.36 pts.) /A per season after bloom initiation.
- Do not apply as an ultra-low volume (ULV) spray.

<sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>1</sup>Use higher rates for large larvae.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	
TOBACCO (AIR DRIED BURLEY TOBACCO A	O): ND FLUE-CURED TOBACCO			
	Armyworm species 1 Blister Beetle species Cabbage Looper Corn Earworm Cucumber Beetle species (Adult) Cutworm species Grasshopper species Japanese Beetle (Adult) Katydid species Plant Bug species³ Potato Tuberworm Salt Marsh Caterpillar Stinkbug species Tobacco Aphid species² Tobacco Budworm² Tobacco Flea Beetle (Adult) Tobacco Hornworm Tobacco Thrips species² Tomato Hornworm Tree Cricket species Vegetable Weevil (Adult) Webworm species	0.015 0.03	0.96 ~ 1.92	

- Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage. When applying by air, apply in a minimum of 2 gals. of water/A.
- Do not apply within 40 days of harvest.
- Do not apply more than 0.09 lb. a.i. (0.36 pts.) /A per year.

<sup>&</sup>lt;sup>1</sup>For control of first and second instars only.

<sup>&</sup>lt;sup>2</sup>Suppression only.

<sup>&</sup>lt;sup>3</sup>See Resistance statement under General Directions for Use.

		Rate		
Сорг	Target Pests	lb. a.i./A	fl. oz./A	
TREE NUTS				
Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazlenut) Hickory Nut Macadamia Nut (Bush Nut) Walnut, Black Walnut, English (Persian)	Ants Chinch Bug Codling Moth Filbertworm Leaffooted Bug Leafroller species Navel Orangeworm Peach Twig Borer Plant Bug species Stink Bug species Walnut Aphid Walnut Husk Fly species (Adult)	0.02 - 0.04	1.28 – 2.56	
Pecan	Hickory Shuckworm Pecan Aphid species Pecan Casebearer species Pecan Phylloxera species Pecan Spittlebug Pecan Weevil Stink Bug species	0.02 - 0.04	1.28 – 2.56	

- Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.
- Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area.
   When applying by air, apply in a minimum of 5 gals. of water/per acre, but use higher rates as appropriate for thorough coverage.
- . Do not apply within 14 days of harvest.
- **Do not** apply more than 0.16 lb. a.i. (0.64 pts.) /A per year. **Do not** apply more than 0.12 lb. a.i. (0.48 pts.) /A per year post bloom.

NON-AGRICULTURAL USES				
		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	
CONIFER AND DECIDU	OUS TREES			
Plantations and Nurseries	Bagworm Balsam Twig Aphid Balsam Wooly Aphid Birch Leafminer Black Pine Weevil Elm Leaf Beetle European Elm Bark Beetle Gypsy Moth Japanese Beetle June Beetle species Leaf Beetle species Leafroller species May Beetle species May Beetle species Mealybug species Mealybug species Pales Weevil Pine Chafer Pine Colaspis Beetle Pine Conelet Bug Pine Leaf Chermid Pine Needle Scale Pine Needle Scale Pine Tip Moth species Pine Tortoise Scale Pine Weevil species Spittlebug species Spruce Budworm Tent Caterpillar species Tussock Moth species Webworm species	0.02 - 0.04	1.28 - 2.56	

- To control exposed foliage, flower, cone, seed and bark feeding insects, apply as required by scouting. Timing
  and frequency of applications should be based upon insect populations reaching locally determined economic
  thresholds.
- Apply with ground equipment using sufficient water to obtain full coverage of target site. When applying by air, apply a minimum of 2 gals. of water/A.
- Do not apply more than 0.24 lb. a.i. (0.96 pts.) /A per year.

<sup>&</sup>lt;sup>1</sup>Suppression only.

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		RaRa	ite
Crop	Target Pest	lb. a.i./A	fl.oz./A
CONIFER AND DECIDU	OUS TREES		
Seed Orchards	Coneworm species Seed Bug species Thrips species	See Remarks	See Remarks

- For high volume sprayers, dilute 2.56 fl. oz. per 100 gals. of water and apply 5-10 gals. of finished spray per tree.
- For low volume sprayers, dilute 10 fl. oz. per 100 gals. of water and apply 100 gals. of finished spray/A.
- For aerial applications, apply 7.5 fl. oz./A in a minimum of 10 gals. finish spray/A.
- Do not apply more than 0.5 lb. a.i. (2 pts.) /A per year.

		Rate	
Crop	Target Pests	lb. a.i./A	fl. oz./A
Non-Cropland (Excluding Public Land)	See Crop Outlets on this Karate Insecticide with Zeon Technology label for target pests and rates.	See Crop Outlets	See Crop Outlets

- Spray non-cropland adjacent to agricultural areas to control migratory insects, which may threaten crops.
- Follow General Use Directions, rates and spray recommendations found elsewhere in this label for the adjacent crop outlet and target pests.
- Use highest labeled rates for dense/large foliage, high insect populations and larger larval stages.
- Repeat as necessary to maintain control.
- Do not exceed 0.2 lb. a.i. (0.8 pt.) /A per year.
- Do not graze livestock in treated areas.

#### **Rate Conversion Chart**

Lb. a.i. Per Acre	Fl. oz. Per Acre	Pints Per Acre	Treated Acres Per Gal.
0.015	0.96	0.06	133
0.02	1.28	0.08	100
0.025	1.60	0.10	80
0.03	1.92	0.12	67
0.035	2.24	0.14	57
0.04	2.56	0.16	50

# STORAGE AND DISPOSAL

#### **Prohibitions**

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

#### Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area. DO NOT ALLOW PRODUCT TO FREEZE.

#### **Pesticide Disposal**

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

#### **Container Disposal**

Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

# Bulk/Mini-Bulk and E-Z Handler® Container Disposal

Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

#### **Container Precautions**

Before refilling, RETURNABLE CONTAINER, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices.

REFILL ONLY WITH KARATE INSECTICIDE WITH ZEON TECHNOLOGY. The contents of RETURNABLE CONTAINERS cannot be completely removed by cleaning. Refilling with materials other than Karate Insecticide with Zeon Technology will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

# CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

Karate® Insecticide with Zeon™ Technology, and the Syngenta logo are trademarks of a Syngenta Group Company

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For non-emergency (e.g. current product information) call Syngenta Crop Protection at 1-800-334-9481.

Syngenta Crop Protection, Inc. Greensboro, North Carolina 27409 www.syngenta-us.com

SCP 1097A-M (draft-crops)

KAR ZEO 1097A-M(draft-crops)-- ig - 1-17-06 000100-01097.20060119.crops.pdf

(non-detachable container label – 1 gal.)

# RESTRICTED USE PESTICIDE DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS, OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

# Karate® Insecticide with Zeon™ Technology

	Group	3	Insecticide
Active Ingredient:			
Lambda-cyhalothrin <sup>1</sup>			
$[1\alpha(S^*),3\alpha(Z)]$ -(±)-cyano-(3-phenoxyph	enyl)methyl-3-(2-chlor	·o-3,3,3-	
trifluoro-1-propenyl)-2,2-dimethylcyclo	oropanecarboxylate		22.8%
Other Ingredients:			77.2%
Total:		_	100.0%

Karate Insecticide with Zeon Technology contains 2.08 lbs. of active ingredient per gal. and is a capsule suspension.

# KEEP OUT OF REACH OF CHILDREN.

# **WARNING / AVISO**

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 additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1097 EPA Est. xxxxx

SCP 1097A-M(draft-crops) (1 gal.)

1 gallon Net Contents

<sup>&</sup>lt;sup>1</sup>Synthetic pyrethroid Contains petroleum distillates.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### WARNING/AVISO

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

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hrs. after exposure and may last 2 – 30 hrs., without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

	FIRST AID
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>

#### If inhaled

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

#### NOTE TO PHYSICIAN

Contains petroleum distillate - vomiting may cause aspiration pneumonia

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal)
Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident)
Call

1-800-888-8372

#### **Environmental Hazards**

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

For terrestrial uses: do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

#### STORAGE AND DISPOSAL

#### **Prohibitions**

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

#### Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area. DO NOT ALLOW PRODUCT TO FREEZF.

# **Pesticide Disposal**

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

# **Container Disposal**

Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

# CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

# Refer to Chemigation directions in booklet.

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SCP 1097A-M(draft-crops) (1 gal.)

KAR ZEO 1097A-M(draft-crops)- Ig - 1-17-06 000100-01097.20060119.crops.pdf



(non-detachable container label – 15 gal., 30 gal., bulk)

# RESTRICTED USE PESTICIDE DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS, OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

# Karate® Insecticide with Zeon™ Technology

	Group	3	Insecticide
Active Ingredient: Lambda-cyhalothrin <sup>1</sup> $[1\alpha(S^*),3\alpha(Z)]$ -(±)-cyano-(3-phenoxyphenyl)n	nethyl-3-(2-chloi	ro-3,3,3-	
trifluoro-1-propenyl)-2,2-dimethylcyclopropan	ecarboxylate		22.8%
Other Ingredients:			77.2%
Total:		<u> </u>	100.0%

Karate Insecticide with Zeon Technology contains 2.08 lbs. of active ingredient per gal. and is a capsule suspension.

<sup>1</sup>Synthetic pyrethroid Contains petroleum distillates.

# KEEP OUT OF REACH OF CHILDREN.

#### **WARNING / AVISO**

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 additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1097 EPA Est. xxxxx

Product of XXXXX
Formulated in XXXXX
Poduct ID. XXXXX

SCP 1097A-M(draft-crops) (15 gal., 30 gal., bulk)

\_\_\_\_\_gallons Net Contents

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### WARNING/AVISO

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

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hrs. after exposure and may last 2 – 30 hrs., without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

	FIRST AID
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
if in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
Cambalaaaa	NOTE TO PHYSICIAN
	eum distillate – vomiting may cause aspiration pneumonia
Have the produ doctor, or going	ct container or label with you when calling a poison control center or process.



# HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal)
Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident)
Call
1-800-888-8372

# **Environmental Hazards**

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

For terrestrial uses: do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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IT IS SYNGENTA'S AND SELLER'S INTENTION THAT in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

# **DIRECTIONS FOR USE**

#### RESTRICTED USE PESTICIDE

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. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

#### STORAGE AND DISPOSAL

#### **Prohibitions**

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

#### Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area. DO NOT ALLOW PRODUCT TO FREEZE.

#### Pesticide Disposal

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