

# Zenivex<sup>®</sup>

## E20

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

- **FOR THE CONTROL OF ADULT MOSQUITOES, NON-BITING MIDGES, AND BLACK FLIES**
- **FOR USE AS A SPACE SPRAY BY AIR AND GROUND APPLICATION TO CONTROL ADULT MOSQUITOES**
- **APPROVED FOR USE OVER AGRICULTURAL CROPS (INCLUDING THOSE INTENDED FOR HUMAN CONSUMPTION), PASTURE AND RANGELAND**
- **CAN BE USED UNDILUTED OR DILUTED**
- **QUICK PERMANENT KNOCKDOWN OF ADULT MOSQUITOES**
- **CONTROLS NON-BITING MIDGES, NUISANCE AND BITING FLIES**
- **CONTROLS ADULT MOSQUITOES THAT MAY CARRY WEST NILE VIRUS, EASTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS**

## SPECIMEN LABEL

### ACTIVE INGREDIENT:

Etofenprox (CAS #80844-07-1) . . . . . 20%

**OTHER INGREDIENTS\*:** . . . . . 80%

Total: . . . . . 100%

\*Contains petroleum distillates

Contains 1.48 lbs etofenprox per gallon

EPA Reg No. 2724-791

EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

### CAUTION

See additional Precautionary Statements, First Aid Treatments, and Directions for Use

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND  
DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Applicators and other handlers must wear long-sleeved shirt, long pants, socks and shoes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and launder before reuse. Repeated exposure to etofenprox can cause skin irritation.

### FIRST AID

**If swallowed** • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** May pose an aspiration pneumonia hazard. Contains petroleum distillate.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are

present, and weather conditions will facilitate movement of applied material away from water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

## PHYSICAL/CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ AND FOLLOW ALL LABEL DIRECTIONS.** Before making the first application of the season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

## GENERAL

**Zenivex® E20** is an effective insecticide used at low volumes to control adult mosquitoes, non-biting midges, biting and non-biting flies. Use **Zenivex® E20**, either undiluted as Ultra-Low Volume (ULV) or diluted with mineral oil or other suitable oil diluent, for the control of pest species in or near residential, industrial, commercial, urban, recreational areas, woodlands, golf courses, and other areas where these pests are a problem. **Zenivex® E20** may be applied over agricultural areas prior to or following harvest for the control of adult mosquitoes within or adjacent to these areas. In the treatment of corrals, feedlots, swine lots, and zoos, cover any exposed drinking water, drinking water fountains, and animal feed before application. Apply **Zenivex® E20** aerially (both fixed and rotary aircraft) for low volume applications or through mist-blowers, backpack, and handheld sprayers for ground applications. **Zenivex® E20** will control mosquitoes and flies and can be used as part of a total integrated pest management program for controlling disease vectors. Apply **Zenivex® E20** at rates from 0.00175 to 0.00700 pounds of etofenprox per acre. Dilute this product with oil (10-50 cps) only; do not mix with water. Apply when wind is > 1 mph. Do not apply when wind speeds exceed 10 mph. A temperature

inversion is preferable to keep the fog close to the ground and applications should be made when labeled insects are most active.

Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

## GROUND APPLICATION

Use a vehicle-mounted cold aerosol ULV sprayer to apply the product. Direct the spray equipment nozzle to provide even distribution of the product. For best results, apply perpendicular to the wind direction using a swath width of 300 ft. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 10-30 microns ( $10\mu < D_{v0.5} < 30\mu$ ) and that 90% of the spray is contained in droplets smaller than 50 microns ( $D_{v0.9} < 50\mu$ ). Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

The appropriate application rate can be achieved by altering the dilution rate of **Zenivex® E20**. Refer to the following chart for examples.

Application rate pound A.I. per acre	Vehicle Speed MPH	Flow rates			
		Undiluted	Diluted 1 to 1	Diluted 1 to 2	Diluted 1 to 4.5
		Oz/minute	Oz/minute	Oz/minute	Oz/minute
0.00175	10	0.9	1.8	2.74	4.57
	15	1.4	2.7	5.40	9.90
	20	1.8	3.6	7.20	13.20
0.00350	10	1.8	3.6	5.48	9.14
	15	2.7	5.4	10.80	19.80
	20	3.6	7.2	14.40	26.40
0.00700	10	3.6	7.2	10.78	19.80
	15	5.4	10.8	16.18	39.60
	20	7.2	14.4	21.50	52.80

Use the higher label rates when spraying areas where dense vegetation is present. Conduct applications when temperatures are between 50-95° F.

## Backpack Sprayer ULV Application

Apply **Zenivex® E20** diluted or undiluted through non-thermal ULV backpack sprayer capable of applying the product in the 10 to 30 micron range. Apply

product to the area as evenly as possible. Apply at the rate of 0.00175 to 0.0070 pounds etofenprox per acre.

### Urban ULV Mosquito Control Applications

For control of resting or flying adult mosquitoes, biting flies and non-biting midges in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited buildings, apply **Zenivex® E20** using mechanical foggers, handheld or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this application. Apply **Zenivex® E20** at rates up to but not exceeding 0.0070 pounds of etofenprox per acre.

### Thermal Fogging Application

Apply using a truck, dolly-mounted, handheld, or other thermal fogging equipment. Following the equipment manufacturer's instructions, apply this product at a rate of 0.00175 to 0.0070 pounds etofenprox per acre. Direct fog to areas where mosquitoes and other pests are located. The volume median diameter (VMD) of droplets produced by thermal foggers is less than 60 microns ( $D_{v0.5} < 60\mu$ ) and 90% of the spray is contained in droplets smaller than 100 microns ( $D_{v0.9} < 100\mu$ ).

### AERIAL APPLICATION

Apply **Zenivex® E20** aerially, either diluted or undiluted, by fixed wing or rotary aircraft. Apply at the rate of 0.00175 to 0.0070 pounds of etofenprox per acre. Apply using ULV equipped and capable aircraft. Spray equipment must be adjusted so that the volume median diameter (VMD) produced is less than 60 microns ( $D_{v0.5} < 60\mu$ ) and that 90% of the spray is contained in droplets smaller than 100 microns ( $D_{v0.9} < 100\mu$ ). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Do not apply **Zenivex® E20** at altitudes below 100 feet. Apply at altitudes from 100-300 feet. Apply when wind speed on the ground is > 1 mph. Apply when labeled insects are most active. For best results, use Global Positioning System (GPS) equipped aircraft. **In Florida:** Do not apply by aircraft except with the approval of the Florida Department of Agriculture and Consumer Services.

## APPLICATIONS OVER CROPS OR TO AREAS FAVORING DRIFT OVER CROPS

**Zenivex® E20** may be applied over crops (including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place) or to areas where drift over cropland could occur. **Zenivex® E20** can be applied to these areas by either ground or aerial application. Use label rates and follow directions for use as directed in this label. Applications over crops or where drift may occur over crops are limited to 4 applications per month to the same site but no more than two applications within a seven day interval. Do not apply more than 0.028 pounds of active ingredient per month to the same site within a month. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year.

## PESTICIDE STORAGE AND DISPOSAL

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

**STORAGE AND SPILL PROCEDURES:** Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL: Refillable 30 Gallon Drums, 120 Gallon Mini-Tote and 275 Gallon Tote: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.** Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. If not refilled, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration. **To clean the container before final disposal,** triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with mineral oil or other suitable oil diluents. 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 it 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. **Non-refillable 2.5 gallon containers: Non-refillable container. Do not reuse or refill this**

**container.** Triple rinse (or equivalent), promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain container for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full of with mineral oil or other suitable oil diluents and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain container for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once triple rinsed, recycle if available, or puncture and dispose of in a sanitary landfill, or by incineration.

To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information or in case of emergency call  
**1-800-248-7763.**

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