

Aqua Perm-X™ UL 30-30

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.

CONTROLS: Adult Mosquitoes (including organophosphate-resistant mosquitoes), Midges (biting and non-biting) and Black Flies

FOR USE AS A: ULV, thermal and barrier applications using ground and aerial equipment in areas including: residential, industrial, commercial and within or adjacent to listed crops and range grasses.

Formulation allows for dilution with water or oil. Refer to label for additional use sites.

SPECIMEN LABEL

ACTIVE INGREDIENTS:

Permethrin (CAS# 52645-53-1)	30%
Piperonyl Butoxide (CAS# 51-03-6)	30%
OTHER INGREDIENTS*	40%
TOTAL:	100%

*Contains Petroleum Distillates
Contains 2.52 lbs. a.i. Permethrin per gallon and 2.52 lbs. a.i. Piperonyl Butoxide per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

See Additional Precautionary Statements, First Aid, Directions for Use including Storage and Disposal instructions.

For Chemical Spill, Leak, Fire, or Exposure,
Call: CHEMTREC 1-800-424-9300.
For Medical Emergencies Only, Call: 1-800-248-7763.

EPA Reg.No. 89459-76
EPA Est. No. 2724-TX-1

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wear long sleeved shirt, long pants, shoes, socks, and chemical-resistant gloves (barrier laminate, nitrile rubber, neoprene rubber, or viton, Selection Category E). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to 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.

(continued)

If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER: 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: Contains petroleum distillate. May pose an aspiration pneumonia hazard.	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, nitrile rubber, neoprene rubber, and viton. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeve shirt and long pants,
- Shoes plus socks,

- Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots, and flaggers,
- Chemical-resistant apron for mixers/loaders, persons cleaning equipment and persons exposed to concentrate.

See Engineering Controls for additional requirements.

USER SAFETY REQUIREMENTS

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

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

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to the use of the Global Positioning System (GPS) or mechanical flaggers.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. 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 invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. 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 the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

Bee Warning: This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift on blooming crops or weeds while bees are actively visiting the treatment areas, 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.

DIRECTIONS FOR USE

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

HOW TO APPLY AND WHERE TO USE

This product is designed for application as an Ultra-Low Volume (ULV) or thermal aerosol to control adult mosquitoes and flies of nuisance, public health or disease vector importance in areas including: residential areas, industrial areas, commercial areas, urban areas, parks, campgrounds, woodlands, athletic fields, golf courses, playgrounds, recreational areas, overgrown waste areas, roadsides, and other areas where adult mosquitoes and flies may be found.

Apply this product with ULV cold aerosol generators, thermal aerosol

generators, mist-blowers, backpack sprayers, or handheld sprayers. Mist-blowers, backpack sprayers, handheld sprayers and low-pressure hand sprayers may be used for barrier or surface applications.

FOR BEST RESULTS, treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the fog near the ground, e.g., cool temperatures, and consistent wind speeds are not greater than 10 mph. Applications during the cool hours of night or early morning are usually preferable. Apply this product only when wind speed is greater than 1 mph.

Do not retreat the same site more than once in 3 days. Do not exceed 25 applications at 0.007 lbs. permethrin per acre per application or 0.25 lbs. PBO per acre per application, or 0.18 lbs. of permethrin per acre per season or 2 lbs. PBO per acre per year. When targeting *Aedes taeniorhynchus* and other difficult species, applications of PBO may be made up to 0.08 lbs. PBO per acre. 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.

Apply this product over specific growing crops and range grasses prior to harvest for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can only be made where the following crops are present:

Alfalfa	Celery	Kiwifruit	Potatoes
Almonds	Cherries	Horseradish	Range grasses
Apples	Corn, fodder	Leafy vegetables (except <i>Brassica</i>)	Soybeans
Artichokes, globe	Corn, forage	Lettuce, head	Spinach
Asparagus	Corn, grain (field and pop)	Mushrooms	Tomatoes
Avocados	Corn, stover	Onions, dry bulb	Vegetables, cucurbit
Broccoli	Corn, sweet kernel + cob with husks removed	Peaches	Walnuts
Brussels sprouts	Eggplant	Pears	Watercress
Cabbage	Filberts	Peppers, bell	
Cauliflower	Garlic	Pistachios	

Do not allow spray treatment to drift on cropland (other than crops listed) or water supplies.

In treatment of corrals, feedlots, animal confinements/houses, swine lots and zoos, cover any exposed drinking water, drinking fountains and animal feed before application.

This product provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn and heel flies, and nuisance flying insects such as house flies. Air temperatures should be greater than 50° F when conducting all types of applications.

Do not apply directly to sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur, except as directed by this label.

Not for use in outdoor residential misting systems. Not for use in metered release systems.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators (Cold Fog): Apply through non-thermal ULV application equipment and base all acreage calculations on the equipment manufacturer's recommended swath width. Spray equipment must be adjusted so the volume median diameter or mass median diameter is less than 30 microns ($D_{v,0.5} < 30 \mu\text{m}$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_{v,0.9} < 50 \mu\text{m}$). Directions from the equipment manufacturer or vendor, pesticide registrant or a 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. Apply at a rate not to exceed 0.007 lb. of permethrin per acre. An optimum swath is created when this product is applied from a truck being driven perpendicular to the wind direction. Direct the spray head of the equipment to ensure an optimum distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud near the ground. An inversion of air temperatures and a light breeze of approximately 1 to 3 mph are preferable. During applications, consistent ground wind speeds should not exceed 10 mph. Application of this product during cooler hours of the night or early morning is recommended.

This product may be applied through all ULV Cold Aerosol Generators, or other similar equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained from the chart below or by altering the dilution rate, the flow rate of the insecticide from the application equipment and the vehicle speed. Some examples are provided in the following chart. When an alternate rate is required, adjust the flow rate accordingly, provided the droplet size and spectrum remain within the label specifications

FLOW RATE (Fluid Ounces Per Minute)						
Dilutions Based on a 15-Gallon Tank*						
Application Rate (Pounds of Permethrin a.i./Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1:4	Diluted 1:5	Diluted 1:6:5	Diluted 1:9
0.00150	10	0.46	2.32	2.77	3.50	4.70
	15	0.70	3.47	4.15	5.20	7.00
	20	0.93	4.64	5.60	7.00	9.30
0.00175	10	0.55	2.70	3.24	4.05	5.40
	15	0.82	4.05	4.84	6.07	8.10
	20	1.09	5.40	6.48	8.10	10.80
0.00350	10	1.09	5.40	6.48	8.10	10.80
	15	1.65	8.10	9.68	12.10	16.10
	20	2.19	10.80	12.90	16.10	21.50
0.00700	10	2.19	10.70	12.90	16.10	21.50
	15	3.28	16.10	19.40	24.20	
	20	4.38	21.40	25.80		

*Dilution Instructions: Fill tank with the appropriate amount of water for the desired dilution, then add this product and mix well. The use of metering pumps, injector systems or other mixing systems is optional. Note: When using oil as a diluent, agitate well before use.

Where dense vegetation is present, use higher rates of application and/or a slower speed for best results.

BACKPACK OR HANDHELD SPRAYER APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 300 foot swath. To apply undiluted at 0.007 lb. of permethrin per acre, adjust

equipment to an output rate of 0.86 fluid ounces per minute and walk at 4 mph. To apply 0.0035 lb. of permethrin per acre, dilute 1 part of this product with 6 parts of diluent and apply at a rate of 3 fluid ounces per minute and walk at 4 mph.

THERMAL AEROSOL APPLICATION: For use in truck-mounted, handheld or other thermal fogging equipment. Spray equipment must be adjusted so the volume median diameter or mass median diameter is less than 30 microns ($D_{v,0.5} < 30 \mu\text{m}$) and that 90% of the spray is contained in droplets smaller than 48 microns ($D_{v,0.9} < 48 \mu\text{m}$). Directions from the equipment manufacturer or vendor, pesticide registrant or a 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. Apply this product mixed with water or oil at a rate not to exceed 0.007 lb. per acre. Base acreage calculations on a 300 foot swath. For best results, direct the thermal fog into and allow to drift through areas where adult mosquitoes are found.

BARRIER APPLICATIONS: To control resting or flying adult mosquitoes in areas including animal quarters, roadsides, urban areas, residential areas, commercial areas, industrial areas, golf courses, parks, recreational areas, tire piles and all public areas where adult mosquitoes occur or find harborage. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, commercial buildings, storage buildings, crawlspaces, transport trailers, abandoned or uninhabited buildings and other areas where adult mosquitoes find harborage.

When this product is applied as a barrier application using low pressure hand sprayers, hydraulic sprayers or ground ULV equipment, do not apply within 100 feet (30 meters) of lakes and streams.

To apply this product using low pressure hand sprayers or other similar equipment, for the control of mosquitoes on resting or aggregation surfaces, mix 0.0875 fluid ounces (2.59 ml) in one gallon of water and apply sufficient spray to dampen the surface – approximately 700-750 square feet of treated area. Use equipment that is capable of delivering an even distribution of the labeled rate over the treatment area. For application using backpack or truck-mounted mist-blower equipment, apply this product undiluted at a rate not to exceed 5.08 fluid ounces per acre. If diluted, apply at a rate not to exceed 0.1 lb. permethrin a.i. per acre. Diluted or undiluted applications may be made onto foliage at the perimeter of areas such as recreational areas, parks, or golf courses from which mosquitoes or flies are to be excluded. Applications may be directed into harborage areas or other resting areas where adult mosquitoes or flies may be found.

URBAN ULV MOSQUITO CONTROL APPLICATIONS: For control of resting or flying adult mosquitoes, biting flies and biting midges in harborage areas such as but not limited to utility tunnels, sewers, storm drains and catch basins, pipe tunnels, basements, underground passages, parking decks, crawlspaces under buildings, abandoned buildings or uninhabited buildings. Apply this product, diluted or undiluted, using mechanical foggers, handheld or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this type of application. This product may be applied at rates up to but not exceeding 0.007 lb. permethrin per acre.

AERIAL APPLICATION

Apply this product, either diluted or undiluted, at rates up to 0.007 lb. permethrin/PBO per acre by fixed wing or rotary aircraft equipped with a spraying system capable of making a ULV application. For aerial applications of this product, use ULV equipment and nozzles such as rotary atomizers or similar spray equipment. Spray equipment must be adjusted so the volume median diameter produced is less than 60 microns ($D_{v,0.5} < 60 \mu\text{m}$) and that

90% of the spray is contained in droplets smaller than 115 microns ($D_{v,0.9} < 115 \mu\text{m}$). Directions from the equipment manufacturer or vendor, pesticide registrant or a 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 at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial application of this product shall be made at altitudes ranging from 75 feet to 300 feet. Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs. Do not apply when ground wind speed exceeds 10 mph. Aerial applications of this product shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and other mosquito control programs.

For best results, apply this product when insects are most active and meteorological conditions are conducive to keeping the spray cloud near the ground. Aerial applications using aircraft equipped with global positioning systems (GPS) may be needed to compensate for windy conditions and to ensure drift into target areas.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: 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: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying.

(Containers ≤ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

(Containers > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip 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. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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 must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Central Garden & Pet Company or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Central Garden & Pet Company and Seller harmless for any claims relating to such factors.

Central Garden & Pet Company 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 this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Central Garden & Pet Company, and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, CENTRAL GARDEN & PET COMPANY 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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