AquaHALT™
Water-Based Adulticide

A water based formulation to kill mosquitoes in Outdoor Residential, Recreational and other outdoor areas; and for use in and around animal areas and quarters for control of flies, mosquitoes, small flying moths, and other listed insects.

For Mosquito Adulticiding: 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.

 ACTIVE INGREDIENTS:
 Pyrethrins .......................................................... 5.00%
 *Piperonyl Butoxide ........................................ 25.00%
 OTHER INGREDIENTS ......................................... 70.00%
 Contains 0.422 pounds of Pyrethrins and 2.11 pounds of piperonyl butoxide per gallon. Contains no aromatic or aliphatic petroleum distillates.
 *(butylcarbityl) (6-propylpiperonyl) ether and related compounds.

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONAL STATEMENT
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed or absorbed through the skin. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear the following: - long-sleeved shirt, - long pants, - shoes and - socks.

In addition to the above PPE, applicators using a high pressure hand wand in an enclosed area must wear at least a NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C, or any N, R, P, or HE filter.

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 wash waters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto 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 as 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.

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.

USE RESTRICTIONS:
• IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.
• Read all directions completely before use and follow all directions and precautions when using product.
• Do not use in aircraft cabinets.
• Do not make applications during rain.
• Except when applying as wide area mosquito adulticide and except when applying directly to beef cattle, dairy cattle and horses, do not enter or allow others to enter until vapors, mists, and aerosols have dispersed, and the treated area has been thoroughly ventilated and directed spray applications have dried.
• Except when applying as a wide area mosquito adulticide, do not apply this product in a way that will contact workers or other persons, either directly or through drift.
• Except when applying as a wide area mosquito adulticide, only protected handlers may be in the area during application.
• When applying as an indoor space spray in animal quarters (see directions for use), do not remain in treated area. Exit area immediately and remain outside the treated area until vapors, aerosols, and/or mists have dispersed. Remove or cover exposed food and drinking water before application.
• When used in dairy barns or facilities: Close milk bulk tanks to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.
• This product cannot be mixed with oil. Use only clean water.
• Not for use in outdoor residential misting systems (indoor or outdoor) or outdoor metered release systems.

OUTDOOR USE: WIDE-AREA MOSQUITO CONTROL

The maximum application rate for wide-area mosquito adulticide application is 0.76 fluid ounces AquaHALT (0.0025 lbs pyrethrins and 0.0125 lbs piperonyl butoxide) per acre. When targeting Aedes taeniorhynchus and other difficult species, applications may be made up to 2.43 fluid ounces AquaHALT (0.008 lbs pyrethrins and 0.04 lbs piperonyl butoxide) per acre per day. Do not apply more than 0.2 lbs of pyrethrins/acre/year or 1.0 lbs of PO/PO/year in any treated area. When rotating this product with other insecticides containing PBO, do not exceed 2 lbs PBO per acre 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.

AquaHALT may be used undiluted or diluted with water and applied as an ultra low volume (ULV).

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and other aquatic invertebrates. When applying as wide area mosquito adulticide and 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. 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 wash waters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

OTHER INGREDIENTS .................................................................................................... 70.00%
*Piperonyl Butoxide ....................................................................................................... 25.00%

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 immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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.

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

In addition to the above PPE, applicators using a high pressure hand wand in an enclosed area must wear the following: - long-sleeved shirt, - long pants, - shoes and - socks.

IF ON SKIN OR CLOTHING:
• Take off contaminated clothing.
• Rinse skin immediately with plenty of water for 15-20 minutes.
• Call a poison control center or doctor for treatment advice.

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IN OTHER STATES: Do not apply by aircraft unless approved by the state or tribe during a natural disaster recovery effort.

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AquaHALT may be used undiluted or diluted with water and applied as an ultra low volume (ULV).
non-thermal aerosol (cold fog) or in suitable mechanical spray equipment. Do not apply this product with thermal fogging equipment. Do not exceed the maximum specified dosage rate (pounds of active ingredient per acre). AquaHALT may be used to control adult mosquitoes, flies, and gnats in mosquito control programs including residential, industrial, recreational, and agricultural areas, vegetation surrounding swamps, marshes, overgrown waste areas, roadsides and pastures where adult mosquitoes occur. For best results treat when mosquitoes are most active. Application during the cool hours of the night or early morning is usually preferable, with a minimum application temperature of 50°F.

Both ground and aerial applications should be made when meteorological conditions are conducive to keeping the spray cloud close to the ground, such as when an air temperature inversion is present. Apply only when ground wind speed is greater than or equal to 1 MPH.

**Spray Droplet Size Determination**

**Ground-Based, Wide Area Mosquito Abatement Application:** Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 μm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 μm). 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.

**Aerial Wide Area Mosquito Abatement Application:** Spray equipment must be adjusted so that the volume median diameter is less than 60 microns (Dv 0.5 < 60 μm) and that 90% of the spray is contained in droplets smaller than 80 microns (Dv 0.9 < 80 μm). 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 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.

**Non-Thermal Aerosol (Cold Fog) Application**

To control mosquitoes, flies, and gnats, apply AquaHALT using any standard ULV ground applicator capable of producing a non-thermal aerosol spray cloud with appropriately sized droplets. Apply the product undiluted at a flow rate of 1.7 to 4.6 fluid ounces per minute at an average vehicle speed of 10 MPH. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.0095 to 0.0256 pounds of pyrethrins and 0.0045 to 0.0125 pounds of piperonyl butoxide per acre. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when populations are high.

AquaHALT may also be applied with non-thermal, portable, motorized backpack or handheld equipment adjusted to deliver ULV particles of less than 100 microns VMD. Dilute only with water if dilution is preferred. Use 0.27 to 0.75 fluid ounces of the undiluted spray per acre as a 50 ft. swath while walking at a speed of 2 MPH.

**Urban ULV Mosquito Control:** For control of resting or flying adult mosquitoes in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces of unembellished buildings. Apply using mechanical foggers, hand-held or truck-mounted ULV equipment or other spray equipment suitable for this application. Apply at rates up to but not exceeding 0.0025 pounds Pyrethrins per acre per day.

**Aerial Application**

Aerial applications may be done by suitable aerial ULV equipment. Flow rate and swath width should be set so as to achieve 0.27 to 0.76 fluid ounces of undiluted AquaHALT per acre. Application should be made at an altitude of less than 300 feet (91 meters) with a swath width from 200 to 500 feet depending on the terrain and weather conditions. The recommended airspeed for fixed wing aircraft with flat fan nozzles is from 120 to 160 MPH. For rotary wing aircraft equipped with rotary nozzles, apply at a sufficiently high airspeed to deliver the appropriate amount of a.i. per acre. Examples of application systems include FLAT FAN NOZZLES: Conventional agricultural nozzles (standard flat fan) may not produce droplets within the appropriate size spectrum. If these nozzles are used, they should be oriented 135° forward and size limited to a spray tip number (representing spray volume) according to aircraft application speed. For example, for application speeds between 60-170 MPH, use nozzle tips numbering 000 to 001 (0.05 to 0.1 gallons per minute at 40 psi). For application speeds in excess of 170 MPH, use nozzle tips numbering 0005 to 001 (0.05 to 0.1 gallons per minute at 40 psi). For application speeds in excess of 170 MPH, use nozzle tips numbering 0005 to 001 (0.05 to 0.1 gallons per minute at 40 psi).

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

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

**Container Handling:** 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. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water, agitate vigorously or recirculate water with the pump for 2 minutes. Pour from pump rinse into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then 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.

AquaHALT™ is a registered trademark of Clarke Mosquito Control Products, Inc.

**MANUFACTURED FOR:**

CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

FOR MORE INFORMATION CALL: 1-800-323-5727

**EPA Reg. No.** 1021-1803-8329
**EPA Est. No.** 8329-IL-01
**Lot No.:** AL0301

**For Use in and around: Animal Areas and Quarters, Dairy and Livestock Barns, Horse Stables and Barns, Poultry Houses, Swine Houses, and other similar areas.**

**Animal Quarter Use:** For use in and around listed use areas to kill accessible stages of Brown Dog Ticks, Clover Mites, Cockroaches, Crickets, Deer Flies, Earwigs, Face Flies, Firebrats,