



# 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%  |
|                           | 100.00% |

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 CAUTION

**PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente (If you do not understand the label, find someone to explain it to you in detail).**

| FIRST AID  |  |
|--|--|
| IF SWALLOWED:  | <ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have a person sip a glass of water if able to swallow.</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 ON SKIN OR CLOTHING:  | <ul style="list-style-type: none"> <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>  |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product including health concerns, medical emergencies, or pesticide concerns, you may call at 1-888-740-8712. |  |

### PRECAUTIONARY STATEMENTS

#### 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.

In addition to the above PPE, applicators using hand held foggers in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any N, R, P or HE filter.

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.

#### 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.

### 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.

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.

### PHYSICAL OR CHEMICAL HAZARDS

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 cabins.
- 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 aerosols, vapors, 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 lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.
- 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.

SHAKE OR AGITATE THOROUGHLY BEFORE DILUTING. Diluted product must be thoroughly agitated before use. Avoid storing excess formulation in equipment.

### 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 PBO/acre/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)

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 0.0009 to 0.0025 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 0.76 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 or uninhabited 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 sufficient 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 0005 to 001 (0.05 to 0.1 gallons per minute at 40 psi). For application speeds in excess of 170 MPH, nozzle tip numbers up to 004 (0.4 gpm at 40 psi) may be used. ROTARY ATOMIZERS: Rotary atomizers should be set to deliver at maximum RPM using the cage mesh or plastic sleeve available from the manufacturer to produce the appropriate size spectrum. Other ULV application systems producing droplets within specifications may be used as long as 0.76 fluid ounces of AquaHALT per acre is not exceeded.

Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy unless specifically approved by the state or tribe based on public health needs.

AquaHALT may also be diluted with water and applied so as not to exceed the maximum pounds of active ingredient per acre as shown in the tables on the next panel. If an alternative dilution rate is used, adjust the flow rate accordingly, provided the droplet size and spectrum remains within label specification.

#### INDOOR USE AREAS

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,

#### **Rates to use AquaHALT Undiluted for Mosquito Control**

| Pounds a.i./Acre |        | AquaHALT     | Flow rates in fluid oz./minute at truck speeds of: |        |        |        |
|------------------|--------|--------------|--|--------|--------|--------|
| Pyrethrins       | PBO    | Fl. oz./Acre | 5 MPH  | 10 MPH | 15 MPH | 20 MPH |
| 0.0025           | 0.0125 | 0.76         | 2.3  | 4.6    | 6.9    | 9.2    |
| 0.0018           | 0.0090 | 0.55         | 1.7  | 3.3    | 5.0    | 6.6    |
| 0.0009           | 0.0045 | 0.27         | 0.8  | 1.7    | 2.5    | 3.3    |

#### **Rates to use a 2.5% product (1 to 1 dilution ratio) AquaHALT for Mosquito Control**

| Pounds a.i./Acre |        | AquaHALT     | Flow rates in fluid oz./minute at truck speeds of: |        |        |        |
|------------------|--------|--------------|--|--------|--------|--------|
| Pyrethrins       | PBO    | Fl. oz./Acre | 5 MPH  | 10 MPH | 15 MPH | 20 MPH |
| 0.0025           | 0.0125 | 1.52         | 4.6  | 9.2    | 13.8   | 18.4   |
| 0.0018           | 0.0090 | 1.09         | 3.3  | 6.6    | 9.9    | 13.2   |
| 0.0009           | 0.0045 | 0.55         | 1.7  | 3.3    | 5.0    | 6.6    |

#### **Rates to use a 1% product (1 to 4 dilution ratio) AquaHALT for Mosquito Control**

| Pounds a.i./Acre |        | AquaHALT     | Flow rates in fluid oz./minute at truck speeds of: |        |        |
|------------------|--------|--------------|--|--------|--------|
| Pyrethrins       | PBO    | Fl. oz./Acre | 5 MPH  | 10 MPH | 15 MPH |
| 0.0025           | 0.0125 | 3.79         | 11.5   | 23.0   | 34.5   |
| 0.0018           | 0.0090 | 2.73         | 8.3  | 16.5   | 24.8   |
| 0.0009           | 0.0045 | 1.36         | 4.1  | 8.3    | 12.4   |

Fleas, Flies, Horn Flies, Hornets, Mosquitoes, Silverfish, Small Flying Moths, Spiders, Stable Flies, Ticks, Wasps, Yellow Jackets, Fannia Flies, and Darkling Beetles. Apply as a space spray in conventional ULV cold aerosol generator or fogger adjusted to deliver aerosol size droplets. Whenever possible perform space spray application in the late evening when insects are at rest. Apply undiluted at the rate of 0.25 - 1.0 fluid ounces per 1,000 cubic feet of space above the animals. This concentrate may also be diluted with water at the rate of one (1) part concentrate to 10 parts water and applied at the rate of 1 - 2 fluid ounces per 1,000 cubic feet of space above the animals. Direct spray toward the upper portions of the enclosure, above the animals, filling the room with mist or fog. Vacate treated area and thoroughly ventilate before reoccupying.

To kill Bedbugs and Mites in poultry houses, prepare a dilution of one (1) part concentrate to 25 parts water and spray crevices of roost poles and cracks in walls and nests where the Bedbugs and Mites hide.

To kill Poultry Lice, spray roosts, walls and nests or cages thoroughly with a dilution of one (1) part concentrate with 25 parts water, followed by spraying over the birds with a fine mist.

**For Use On Animals:** To protect beef and dairy cattle and horses from Horn Flies, Houseflies, Mosquitoes, Gnats, dilute 1 part concentrate with 49 parts water, mix well and apply a light mist sufficient to wet the tips of the hair. To kill Stable Flies, Horse Flies, and Deer Flies on animals apply two (2) fluid ounces per adult animal in an amount sufficient to wet the hair but not to soak the hide. Repeat treatment once or twice daily or at intervals to give continued protection. To kill the motile stages of Blood Sucking Lice on beef and dairy cattle and other listed animals, apply the spray to thoroughly wet the hair. Use two (2) fluid ounces or less per animal and repeat every 2 to 3 weeks as required.

## **STORAGE AND DISPOSAL**

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

**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 at 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 or pump rinsate 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**

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