Agenda Item: **3L-2**

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date:	August 25, 2026	(X) Consent ( ) Workshop	( ) Regular ( ) Public Hearing
Department:	Environmental Resources Management		

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: the Detailed Work Plan Budget – Arthropod Control (Budget) and Integrated Mosquito Management Plan (Work Plan) for Fiscal Year (FY) beginning October 1, 2026 and ending September 30, 2027.

Summary: The Budget and Work Plan are submitted annually to the Florida Department of Agriculture and Consumer Services (FDACS) as part of the Palm Beach County (PBC) annual re-application process for FY 2027 to remain in the state-approved mosquito control program. FDACS requires the use of current-year forms to comply with the Florida Administrative Code (F.A.C.). As part of this process, PBC anticipates receiving either a State Financial Assistance Recipient Agreement (Agreement) or a State Mosquito Control Memorandum of Understanding (MOU) from FDACS for the FY beginning October 1, 2026, and ending September 30, 2027. An Agreement would be required if FDACS awards grant assistance to PBC; however, PBC does not anticipate receiving grant assistance for FY 2027. If no grant assistance is awarded, an MOU would still be required pursuant to F.A.C. Rule 5E-13.022 for counties that are not eligible to receive state aid for the control of arthropods but wish to remain in the state-approved program. Under the MOU, the Mosquito Control Division would be responsible for completing the required monthly deliverables. **Countywide (FM)**

Background and Justification: FDACS provides assistance to local governments with arthropod and mosquito control and ensures the tools and techniques meet industry standards and are in compliance with Chapter 388, Florida Statutes and 5E-13, F.A.C. State aid determination is based on a tier system.

Attachments:
1. FDACS Form 13623 – Detailed Work Plan Budget-Arthropod Control
2. FDACS Form 13666 – Integrated Mosquito Management Plan

Recommended by: Deborah Drum — 7-16-2026
Department Director — **Date**

Approved by: — 7/28/26
Chief Deputy County Administrator — **Date**

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2026	2027	2028	2029	2030
Capital Expenditures					
Operating Costs					
External Revenues					
Program Income (County)					
In-Kind Match (County)					
NET FISCAL IMPACT					
# ADDITIONAL FTE POSITIONS (Cumulative)					

Is Item Included in Proposed Budget? Yes X No ____
Does this item include the use of federal funds? Yes ____ No X
Does this item include the use of state funds? Yes ____ No X

Budget Account No.:

Fund 0001 Department 380 Unit 3241 Object ____ Program ____

B. Recommended Sources of Funds/Summary of Fiscal Impact:

C. Department Fiscal Review: 7/20/26

III. REVIEW COMMENTS

A. OFMB Fiscal and /or Contract Dev. and Control Comments:

7/23/2026
OFMB DS 7/23/26 AR 7/23/26

7/27/26
Contract Development & Control 7-24-26 FM

B. Legal Sufficiency:

7-27-26 FM
Assistant County Attorney

C. Other Department Review:

Department Director

(THIS SUMMARY IS NOT TO BE USED AS A BASIS FOR PAYMENT)

WILTON SIMPSON
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Agricultural Environmental Services

DETAILED WORK PLAN BUDGET - ARTHROPOD CONTROL

Rule 5E-13.022, F.A.C.

Telephone: (850) 617-7933; Fax: (850) 617-7939

Submit to:
Mosquito Control Program
MosquitoControlReports@FDACS.gov
3125 Conner Blvd, Suite E
Tallahassee, FL 32399-1650

RECOMMENDED FOR APPROVAL:

FOR FISCAL YEAR BEGINNING OCTOBER 1, 20 26
ENDING SEPTEMBER 30, 20 27

PREPARED BY: Erin Kessler Fiscal Specialist II

DATE:

DATE: 6/3/2026

APPROVED BY:
FDACS Mosquito Control Program Representative

COUNTY or DISTRICT Palm Beach County

APPROVED BY:
Chairman of the Board, or Clerk of Circuit Court

DATE:

DATE:

PAGE 1 OF 3

ACCOUNT	TITLE		RATE OR UNIT	TOTAL COST	TO BE PAID FROM LOCAL	STATE	GENERAL EXPENSE		PROGRAM ELEMENTS					
	RECEIPTS													
311	Ad Valorem (Current/Delinquent)			$3,097,101	$3,097,101.00									
334.1	State Grant					$ -								
						$ -								
362	Equipment Rentals													
337	Grants and Donations				$ -									
361	Interest Earnings													
364	Equipment and/or Other Sales													
369	Misc./Refunds (prior yr expenditures)													
380	Other Sources													
389	Loans													
TOTAL RECEIPTS				$3,097,101.00	$ 3,097,101.00	$ -	$ -							
BEGINNING FUND BALANCE					$ -	$ -								
TOTAL BUDGETARY RECEIPTS AND BALANCES				**$3,097,101.00**	**$ 3,097,101.00**	**$ -**	**$ -**							

FDACS-13623 Rev. 09/23

WILTON SIMPSON
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Agricultural Environmental Services

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DATE: 6/3/2026

APPROVED BY: FDACS Mosquito Control Program Representative
DATE:

COUNTY or DISTRICT: Palm Beach County

APPROVED BY: Chairman of the Board, or Clerk of Circuit Court
DATE:

PAGE 2 OF 3

ACCOUNT	TITLE	PERIOD OR QUANTITY	RATE OR UNIT	TOTAL COST	TO BE PAID FROM: LOCAL	STATE	GENERAL EXPENSE	CAPITAL	PROGRAM ELEMENTS					
	EXPENDITURES													
10	Personal Services													
12	DEAGURERO, M - Msq Cntrl Insp II	2080	27.79	$ 57,809.86	$ 57,809.86									
12	DOLAN, EDWARD J - Senior Environmental Tech	2080	34.53	$ 71,832.38	$ 71,832.38									
12	FAZEKAS, STEVEN - Env Prog Supervisor	2080	43.56	$ 90,595.23	$ 90,595.23									
12	GOODE, GARY T - Director, MC	2080	68.13	$ 141,719.76	$ 141,719.76									
12	HERNANDEZ, JORGE L - Msq Cntrl Insp II	2080	41.33	$ 85,965.15	$ 85,965.15									
12	LENTSCH, AGNES - Msq Cntrl Insp II	2080	30.53	$ 63,498.24	$ 63,498.24									
12	LIVOTI, DAVID T - Msq Cntrl Insp II	2080	24.65	$ 51,261.60	$ 51,261.60									
12	HRIM KESSLER, ERIN M- Fiscal Specilist II	2080	34.16	$ 71,060.70	$ 71,060.70									
12	PARKER, ROBERT - Msq Cntrl Insp II	2080	24.65	$ 51,261.60	$ 51,261.60									
12	REISINGER, CHRISTOPHER J - Env Prog Sup	2080	47.17	$ 98,113.60	$ 98,113.60									
12	RIVERO, COREY - Msq Cntrl Insp II	2080	27.67	$ 57,545.28	$ 57,545.28									
12	ROLDAN, PHANOR - Msq Cntrl Insp II	2080	24.65	$ 51,261.60	$ 51,261.60									
12	SAULTER, DERRYCK T - Msq Cntrl Insp II	2080	26.13	$ 54,348.32	$ 54,348.32									
12	SULLIVAN, RYAN - Environmentalist I	2080	37.58	$ 78,157.96	$ 78,157.96									
12	THOMPSON, BILLIE - Equip Analyst	2080	46.65	$ 97,039.86	$ 97,039.86									
12	TWOMBLY, TOM - Msq Cntrl Insp II	2080	23.95	$ 49,819.66	$ 49,819.66									
	Total Personal Services		563.12	$ 1,171,290.81	$ 1,171,290.81									
20	Personal Services Benefits													
21	FICA	1 Year	7.65%	$ 90,667.00	$ 90,667.00									
22	Retirement Contributions - FRS	1 Year		$ 172,393.00	$ 172,393.00									
23	Insurance - Life & Health	1 Year		$ 240,000.00	$ 240,000.00									
24	Workers Compensation	1 Year		$ 27,831.00	$ 27,831.00									
	Total Personal Services Benefits			$ 530,891.00	$ 530,891.00									
30	Operating Expense													
34	Other Contractual Services (Yearly mosquito aerial spraying contract)			$ 814,000.00	$ 814,000.00									
40	Travel & Per Diem													
40.2	Travel & Per Diem (Tolls)			$ 4,900.00	$ 4,900.00									
41	Communication Serv													
42	Freight Services													
	Postage			$ 100.00	$ 100.00									
43	Utility Service													
	Utilities / Electric			$ 11,800.00	$ 11,800.00									
	Utilities / Waste Disposal			$ 8,500.00	$ 8,500.00									
44	Rentals & Leases													

	Rent			$ 400.00	$ 400.00									
	Rent - Office Equipment			$ 2,500.00	$ 2,500.00									
	Rent - Uniforms			$ 7,000.00	$ 7,000.00									
	Rent - Motor Pool Vehicles			$ 102,268.00	$ 102,268.00									
45	Insurance													
	Casualty Self Ins. Premulms			$ 19,151.00	$ 19,151.00									
46	Repairs & Maintenance													
46.6	Rep/Maint-Parts & Supplies			$ 1,000.00	$ 1,000.00									
46.1	Repairs/Maint-Buildings			$ -										
46.6	Rep/ Maint-Equipment			$ 1,300.00	$ 1,300.00									
46.2	Rep/Maint-Motor Pool Vehicles			$ 47,071.00	$ 47,071.00									
46.4	Radio Equipment/Installation													
47	Printing and Binding													
48	Promotional Activities													
49	Other Charges													
49.1	Licenses and permits			$ 199.00	$ 199.00									
49.1	Registration Fees			$ 1,600.00	$ 1,600.00									
49.2	Advertising			$ 100.00	$ 100.00									
49.1	Charge-off from other cost center(Dept. Admin Allocation)													
51	Office Supplies													
	Office Supplies			$ 1,000.00	$ 1,000.00									
	Office Furniture & Equipment			$ 500.00	$ 500.00									
	Data Processng Sftwre/Accessres			$ 5,000.00	$ 5,000.00									
	Radio Equipment/ Installation			$ 1,000.00	$ 1,000.00									
52.1	Gasoline/Oil/Lube													
	Gasoline			$ 39,219.00	$ 39,219.00									
	Diesel Fuel * Sobj			$ 15.00	$ 15.00									
52.2	Chemicals													
	Insecticides & Pesticides *			$ 293,867.00	$ 293,867.00									
52.3	Protective Clothing													
	Clothing & Wearing Apparel			$ 1,980.00	$ 1,980.00									
52.4	Misc. Supplies													
	Material/Supplies Operating			$ 25,000.00	$ 25,000.00									
	Safety Supplies			$ 1,100.00	$ 1,100.00									
	Purchased Water													
52.5	Tools & Implements													
	Tools & Small Implements			$ 1,200.00	$ 1,200.00									
64	Publications & Dues													
	Books Publications & Subscriptions			$ 250.00	$ 250.00									
	Dues & Memberships			$ 2,900.00	$ 2,900.00									
65	Training													
60	Capital Outlay													
71	Principal													
72	Interest													
81	Aids to Government Agencies													
83	Other Grants and Aids													

89	Contingency (Current Year)													
99	Payment of Prior Year Accounts													
Other	Please Select Other Accounting Code													
Other	Please Select Other Accounting Code													
Other	Please Select Other Accounting Code													

Florida Department of Agriculture and Consumer Services
Division of Agricultural Environmental Services

WILTON SIMPSON
COMMISSIONER

DETAILED WORK PLAN BUDGET - ARTHROPOD CONTROL

Rule 5E-13.022, F.A.C.

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APPROVED BY: FDACS Mosquito Control Program Representative DATE:	COUNTY or DISTRICT Palm Beach County	APPROVED BY: Chairman of the Board, or Clerk of Circuit Court DATE:

PAGE 3 OF 3

ACCOUNT	TITLE	PERIOD OR QUANTITY	RATE OR UNIT	TOTAL COST	TO BE PAID FROM: LOCAL	STATE	GENERAL EXPENSE	CAPITAL	PROGRAM ELEMENTS					
	RESERVES													
0.001	Reserves - Future Capital Outlay													
0.002	Reserves - Self-Insurance													
0.003	Reserves - Cash Balance to be Carried Forward													
0.004	Reserves - Sick and Annual Leave Trans Out													

FDACS-13623 Rev. 09/23

WILTON SIMPSON
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Agricultural Environmental Services

INTEGRATED MOSQUITO MANAGEMENT PLAN

Section 388.271, F.S. and 5E-13.022, F.A.C.
Telephone: (850) 617-7933; FAX (850) 617-7939

Submit to:
Mosquito Control Program
MosquitoControlReports@FDACS.gov
3125 Conner Blvd, Suite E

I. General Information	
Fiscal year:	**2026-2027**
Program:	**Palm Beach County**
Completed by:	**Gary Goode**

II(a). Chemical Inventory: Adulticides

Product Name	EPA Reg Number	Active Ingredient(s) (one per line)	% of A.I.	Reporting as Diluted/ Undiluted	Application Rate	Application (Ground, Aerial, Both)	Projected Purchase gal/lbs (if none, leave blank)
Dibrom Concentrate	5481-480	Naled	87.4	Undiluted	0.25 oz./ac.	Aerial	1500
Aqua-Reslin	432-796	Permethrin	20	Diluted	1.0 oz./ac.	Ground	
Piperonyl Butoxide	432-796	Piperonyl Butoxide	20	Diluted	1.0 oz./ac.	Ground	
Permanone 30-30	432-1235	Permethrin	30	Diluted	0.007 oz./ac.	Ground	30
Aqualuer 20-20	769-985	Permethrin	20.6	Diluted	0.007 oz./ac.	Ground	
Piperonyl Butoxide	769-985	Piperonyl Butoxide	20.6	Diluted	0.007 oz./ac.	Ground	
Fyfanon EW	279-3622	Malathion	40.9	Undiluted	1.0 oz./ac.	Ground	
Fyfanon ULV	279-3539	Malathion	96.5	Undiluted	0.495 oz./ac.	Ground	120

Program Name	Palm Beach County	Fiscal Year	2026-2027

II(b). Chemical Inventory: Larvicides

Product Name	EPA Reg Number	Active Ingredient(s) (one per line)	% of A.I.	Reporting as Diluted/ Undiluted	Application Rate	Application (Ground, Aerial, Both)	Projected Purchase Gal/lbs (if none, leave blank)
Altosid XR	2724-421	(S)-Methoprene	2.1	Undiluted	435.6 ea./ac.	Ground	2000
Altosid XR-G	2724-451	(S)-Methoprene	1.5	Undiluted	5 lbs./ac.	Ground	500
Altosid Liquid Larvicide Concentrate	2724-446	(S)-Methoprene	20	Diluted	0.5 oz./ac.	Ground	20
VectoBac G	73049-10	Bacillus thuringiensis (	2.8	Undiluted	5 lbs./ac.	Ground	1000
VectoBac WDG	73049-56	Bacillus thuringiensis (	37.4	Diluted	0.75 lbs./ac.	Ground	1000
VectoBac 12AS	73049-38	Bacillus thuringiensis (	11.61	Diluted	0.25 gal./ac.	Ground	100
Cocobear	8329-93	Mineral Oil	100	Undiluted	3 gal./ac.	Ground	30
Sumilarv® 0.5G	1021-2819	2-[1-Methyl-2-(4-phenc	50	Undiluted	0.00066 lbs./ac.	Ground	
Natular G	8329-80	Spinosad	5	Undiluted	6 lbs./ac	Ground	
Natular G30 WSP	8329-91	Spinosad	2.5	Undiluted	435.6 ea./ac.	Ground	
Natular G30	8329-93	Spinosad	2.5	Undiluted	10 lbs./ac.	Ground	
Natular DT	8329-602	Spinosad	7.48	Undiluted	4,356 ea./ac.	Ground	30

Program Name	Palm Beach County	Fiscal Year	2026-2027

II(c). Efficacy/Resistance Testing

Starting Life Stage	Type/Location (i.e. CDC Bottle Bioassay/In house)	Frequency	Mosquito spp. tested	A.I. tested
Egg	WHO larval assay 25 locations	Baseline	Culex quinquefasciatus	Bti, Spinosad, Methoprene, Lsph
Egg	Aerial Treatment Cage testing	Opportunistic	Culex quinquefasciatus, culex nigr.	Naled
Egg	Buffalo Turbine larviciding trials	Opportunistic	Culex quinquefasciatus, aedes aegypti	bti

III. Biological Control and Source Reduction

	Type (Fish spp., SIT)	Number of Release Sites	Total Number of Releases	Average Number per Release
Biological Control	Gambusia	180	18000	100

	Project Name/Type	Description of Work
Source Reduction Efforts	Residential Tire Pickup	Inspectors offer to remove a limited number of tires from residential service calls, as conditions warrant.
	Bromeliad Guidance	Inspectors offer solutions to residential and commercial bromeliad sources, up to and including advising removal.
	Natural Areas Cleanups	Inspectors and other staff participate in estuary shoreline cleanups to remove tidal blockages and artificial containers.

IV. Identification and Surveillance

Number of citizen service requests (Estimated average number)	2362

Identification

1. Number of employees capable of mosquito identification	12
2. Number of employees conducting mosquito identification	3
3. If none, what mechanisms do you use to identify mosquitoes? (i.e. UF IFAS, Contracted, other)	

	Method (Trap type, landing rate etc.)	Number of locations	Frequency (i.e. weekly/ Mar-Oct)	Purpose (i.e. Baseline, Action Threshold)
Routine/Baseline Surveillance	CDC	17	Twice weekly/All Months	Baseline, Action Threshold, Efficacy
	Landing Rate	100	Daily-weekly, based on service need	Action Threshold, Efficacy
	Larval Sites/Storm Drains	300	Weekly-monthly, based on need	Action Threshold, Treatment Site ID

	Method (i.e. Trap type)	Type of cases responded to in past year (i.e. Arboviral or SE)	Past year total	Notes (if applicable)
Arboviral/Special Event (SE) Surveillance	BG-Sentinel	Arboviral (Dengue)	12	Local disease case investigations
	CDC	Special Event (Malaria)	3	Rarely needed for investigations.
	CDC	Pre and Post Trapping Aerial Spraying	20	additional trapping for Ae. Tae.

	Number of sites	Number of chickens at each site	Testing site (in house, FDOH or both)	Trap type utilized at sites
Sentinel Chicken	8	4	FDOH	none

V. Outreach/Education

	Event Type(s)/Program(s)	Frequency	Stakeholders	Primary Topic
Public Relations/ Educational Programs	Junior Achievement High School Career D	5 Events attended	Public, Business, Students	Mosquito Control/Env. Careers
	Green Futures Internship Program	2 Day with one student group	High School Students/PBC Recruiting	Mosquito/Aquatic Weed Control
	Media Interviews	2 on Camera Interviews	Local News, Public	Program Awaredness, Aerial Spraying
	Junior Achievement Middle School Career	3 Events attended	Public, Business, Students	Mosquito Control/Env. Careers
	Student Internship	2 students all summer	Student, Local Universities	Student assistance in lab for intership
	Trash Clean up	3 occurence	Public, Parks, Volunteers	Restoration Area/Source Reduction
	Junior Achievement Elementary School Ca	6 Events attended	Public, Business, Students	Mosquito Control/Env. Careers

Program Name	Palm Beach County	Fiscal Year	2026-2027

VI(a). Inventory of Equipment: State Funds	
Does your program maintain equipment/vehicles purchased using state funds?	No
If yes, complete the following table. If necessary, duplicate this page for additional space	

Year	Make	Model	Vehicle/Asset Number	Purpose/Use

Program Name	Palm Beach County	Fiscal Year	2026-2027

VI(b). Inventory of Equipment: Local Funds

If necessary, duplicate this page for additional space

Year	Make	Model	Vehicle/Asset Number	Purpose/Use

Instruction Page

Pages 1 & 2 (complete each section as directed)

(I.) General Information
Completely fill out the general information section and be sure to provide the full name of the person completing and potentially updating this form. This information will automatically populate on the other pages.

II(a). Chemical Inventory: Adulticides

This section should include all adulticides which are either in inventory or will be purchased in the upcoming year. Please list the full product name on one line. If there are multiple active ingredients, list each on their own line with their percentages. If no more product will be purchased in the upcoming year, leave column H blank.

II(b). Chemical Inventory: Larvicides
Repeat the same process as the adulticides.

Page 3 (complete what is pertinent to your program)

II(c). Efficacy/Resistance Testing
Enter all resistance testing done for the program's jurisdiction whether in-house or sent to a separate entity. Starting stage will be the stage of mosquito that was collected originally (i.e. eggs with egg papers). If multiple mosquito species were tested, please list them on the same line. You may abbreviate if necessary. If you do not conduct this type of testing, leave blank.

III. Biological Control and Source Reduction
The biological control section should include any releases of mosquito-feeding fish, irradiated mosquitoes, or genetically-modified mosquitoes. Source Reduction will include any projects to reduce or remove mosquito breeding habitats such as debris removal or ditch digging. Leave blank if you do not conduct this type of control work.

IV. Identification and Surveillance
Citizen service requests include citizen complaints followed by a an inspection. If identification is conducted by a separate entity (i.e. FDACS), please note so on Line 29. Only surveillance conducted by the program must be reported. Fill in the surveillance sections based on the activity of the previous year.

V. Outreach/Education
List all outreach participated in during the previous year. This can include events presented at and/or attended. Events can include kiosk events, school presentations, etc. In addition, stakeholders can include the general public, students, personnel from other mosquito control programs, other government entities

Page 4 (specific to equipment purchased using state funds)

VI. Inventory of Equipment Purchased by State Funds
If you answered "yes" to the first question, please fill out the following table for all equipment purchased using state funds, even if only partially covered.

VI(b). Inventory of Equipment: Local Funds
Please fill out the following table for all equipment, vehicles, devices, etc. purchased with only local funds.

Altosid®

ZOËCON

LIQUID LARVICIDE CONCENTRATE

PREVENTS ADULT MOSQUITO EMERGENCE ***(including those which may transmit West Nile virus, Zika, chikungunya and dengue)***

For control of mosquito larvae using ULV application

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6).....20%
OTHER INGREDIENTS:.....80%
TOTAL:.....100%

Formulation contains 1.72 lb/gal (205.2 g/liter) active ingredient

EPA REG. NO. 2724-446 EPA EST. NO. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE ADDITIONAL PRECAUTIONARY STATEMENTS

BECAUSE OF THE UNIQUE MODE OF ACTION OF **A.L.L.**, SUCCESSFUL USE REQUIRES FAMILIARITY WITH SPECIAL TECHNIQUES FOR APPLICATION TIMING AND TREATMENT EVALUATION. SEE **GUIDE TO PRODUCT APPLICATION** OR CONSULT LOCAL MOSQUITO ABATEMENT AGENCY.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

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

FIRST AID

Call a poison control center or doctor immediately for treatment advice.

(continued)

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 eye.

If on skin or clothing • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15–20 minutes.

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.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

DIRECTIONS FOR USE

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

MIXING AND HANDLING INSTRUCTIONS

1. **SHAKE WELL BEFORE USING. Zoëcon® Altosid® Liquid Larvicide Concentrate (A.L.L.)** may separate on standing and must be thoroughly agitated prior to dilution.
2. Do not mix with oil; use clean equipment.
3. Partially fill spray tank with water; then add the labeled amount of **A.L.L.**, agitate, and complete filling. Mild agitation during application is desirable.
4. Use spray solution within 48 hours; always agitate before spraying.

APPLICATIONS

Mosquito Control: **A.L.L.** must be applied to 2nd, 3rd, or 4th larval instars of target mosquitoes to prevent adult emergence. Treated larvae continue normal development to the pupal stage where they die. This insect growth regulator **has no effect when applied to pupae or adult mosquitoes.** **A.L.L.** has sufficient field life to be effective at label rates when applied to larval stages under varying field conditions. For further information, see **Guide to Product Application.**

For Control of Mosquito Larvae Using ULV Application: For

ground and aerial application to terrestrial sites, apply at the rate of ¾ - 1 fluid ounce of product per acre to water-holding containers and other small bodies of water that breed mosquitoes. Use equipment capable of applying a fine mist or ULV. Follow equipment manufacturer's recommendations when making applications. Direct spray applications to sites where mosquitoes breed. These sites include tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water.

For aerial application to terrestrial sites, apply by fixed wing or rotary aircraft. Apply at the rate of ¾ – 1 fluid ounce of product to acre diluted with water at a minium of a 1:1 mix ratio with water. Apply using ULV equipped and capable aircraft. Unlike ULV sprays targeting flying mosquitoes, it is important that spray droplets deposit in targeted areas. Target terrestrial areas where mosquitoes breed. These sites include tires, open containers, garbage bins, birdbaths, and gutters holding small amounts of water. Spray equipment must be adjusted so that the volume median diameter (VMD) produced ranges from 60 microns ($Dv_{0.5}$ < 60μ) to 100 microns ($Dv_{0.5}$ < 100μ), and that 90% of the spray is contained in droplets smaller than 200 microns ($Dv_{0.9}$< 200μ). 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 calibrated annually to confirm that nozzle flow rate(s) are accurate. Do not apply at altitudes below 100 feet unless using unmanned aircraft designed for low application heights. Apply when wind speed on the ground is ≥ 1 mph and ≤ 10 mph. Apply when wind factors promoting drift are low. For best results, use Global Positioning System (GPS) equipped aircraft.

METHODS OF APPLICATION

Aerial: Apply **A.L.L.** by aircraft to terrestrial locations where mosquito breeding occurs. Use the amount of **A.L.L.** listed below in sufficient water to give complete coverage. One-half to 5 gallons of spray solution per acre is usually satisfactory. Do not apply when weather conditions favor drift from areas treated.

Ground: Determine the average spray volume used per acre by individual operators and/or specific equipment. Mix **A.L.L.** in the appropriate volume of water to give the rate per acre shown below.

APPLICATION RATE

Apply ¾ to 1 fl oz of **A.L.L.** per acre (55 to 73 ml/hectare) in water as directed.

For Control of Mosquito Larvae Using ULV Application: Apply at ¾ - 1 ounce per acre. Reapply as breeding sites become reinfested or when monitoring indicates an increase in adult populations.

APPLICATION SITES

Pastures: **A.L.L.** may be applied after each flooding without removal of grazing livestock.

Rice: **A.L.L.** must be applied to 2nd, 3rd, and/or 4th instar larvae of mosquitoes found in rice, usually within 4 days after flooding. **A.L.L.** treatment may be repeated with each flooding.

Intermittently Flooded Noncrop Areas: Apply **A.L.L.** as directed above when flooding may result in floodwater mosquito hatch. Typical sites include: freshwater swamps and marshes, salt marshes, woodland pools and meadows, dredging spoil sites, drainage areas, waste treatment and settling ponds, ditches and other natural and manmade depressions.

Crop Areas: Apply **A.L.L.** to irrigated croplands after flooding to control mosquito emergence. Examples of such sites are: vineyards, rice fields (including wild rice), date palm orchards, fruit and nut orchards, and berry fields and bogs. Irrigated pastures may be treated after each flooding **without** removal of livestock.

Dense Vegetation or Canopy Areas: Apply an **A.L.L.** sand mixture using standard granular dispersal equipment. For detailed preparation instructions, refer to **Guide to Product Application**.

TANK MIXING INSTRUCTIONS

The user, at his discretion can mix **A.L.L.** with a registered adulticide or other larvicide, such as *Bacillus thuringiensis*, variety *israeliensis (B.t.i.)* or *Bacillus sphaericus (B.s.)* unless the tank mix product label prohibits such mixing. Use of the resulting tank mixture must be used in accordance with the more restrictive label limitations and precautions.

Chemigation: Refer to supplemental labeling entitled **Guide to Product Application** for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Pesticide Storage:** Store in a cool place, away from other pesticides, food and feed. In case of leakage or spill, soak up with sand or another absorbent material. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Handling:** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. 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 ¼ 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. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For information, call **1-800-248-7763** or visit our Web site: **www.centralmosquitocontrol.com**

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1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

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March, 2017
Schaumburg, IL

VEC 17-004

Altosid®

ZOËCON®

LIQUID LARVICIDE CONCENTRATE

PREVENTS EMERGENCE OF ADULT FLOODWATER MOSQUITOES

GUIDE TO PRODUCT APPLICATION

FOR THE FIRST TIME USER

Zoëcon® Altosid® Liquid Larvicide Concentrate (A.L.L.) is the result of extensive research into the intricacies of natural biochemical and physiological development of insects. New chemical technology and biological findings were combined to develop a unique mosquito larvicide.

A.L.L., an insect growth regulator (IGR), acts by inducing morphological changes which interfere with normal development. These effects, not immediately apparent, result in the failure of adult mosquitoes to emerge from pupae. **A.L.L.** is **not** a conventional pesticide. It does not produce the nondiscriminatory rapid, directly toxic effects that are associated with traditional larvicides. **A.L.L.** differs from other larvicides you may have used only in the manner and time course of its action **after** application.

A.L.L. is applied to second, third or fourth instar larvae using standard larviciding equipment in a manner similar to other larvicides. After application to second, third or fourth instar larvae at recommended rates, absolutely no effects on larvae will be observed. They will continue developing normally and will pupate. Pupae will appear unaffected, but will eventually die. **Adults will not emerge.** Infrequently, a few adults may be seen at the water surface but they will have abnormalities preventing flight and will not survive. Because the effect of **A.L.L.** is neither larval death nor widespread mortality immediately following pupation, **the number of adults which emerge is the only criterion for accurately assessing control**. Checks by dip counts during larval and pupal stages will give no measure of effectiveness.

Refer to the following diagram and checklist, in addition to label instructions for guidance in timing of application and performance evaluation. They will assist you in obtaining the best possible results with this unique product.

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1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

The information presented herein, while not guaranteed, is to the best of our knowledge true and accurate. No warranty or guarantee, express or implied, is made regarding the performance or stability of any product, since the manner of use and conditions of storage and handling are beyond our control.

CHECKLIST

Things to remember when using **A.L.L.**

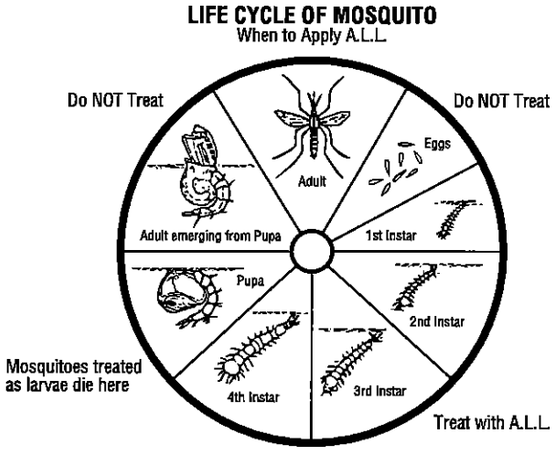
DO the following:

1. **DO** treat second, third, and/or fourth instar larvae, not pupae or adults. (First instar larvae are so small they are not readily detectable.)
2. **DO** wait until treated larvae have pupated. Then **collect pupae** and transfer to laboratory to observe for emergence of adults.
3. **DO** observe pupae for several days, since death of IGR treated mosquitoes occurs when pupae would normally emerge as adults. (Careful observation is necessary since dead pupae decompose rapidly and thus are not easily seen.)
4. **DO** monitor emerging adults at the treatment site.This absolutely requires that emergence traps be placed in treatment areas to capture adult mosquitoes as they emerge.

DO NOT do the following:

1. **DO NOT** take dip counts of larvae after treatment for the purpose of performance evaluation. **Normal looking larvae** will be present.
2. **DO NOT** take dip counts of pupae after treatment for the purpose of performance evaluation. **Normal looking pupae** will be seen but these will not develop into normal adults.
3. **DO NOT** think **A.L.L.** has failed if some adult mosquitoes are flying in treated areas; they probably have flown in from nearby untreated areas. Numbers 2 and 4 of the **"DO"** checklist are the only methods of accurately assessing effectiveness.
4. **DO NOT** spray again, either with **A.L.L.** or a conventional insecticide, because larvae or pupae are present after application. This is normal. The effectiveness of **A.L.L.** can only be measured by lack of adult emergence.

LIFE CYCLE OF MOSQUITO
When to Apply A.L.L.



Preparation of ALTOSAND®
Granular Formulation
An "On-Site" Method of Preparing a Granular Formulation of A.L.L.

INTRODUCTION

A method of application of **A.L.L.**, using sand as a carrier, has been developed for use in floodwater mosquito breeding areas with dense vegetation or canopy. The characteristics of **ALTOSAND®** provide excellent foliage penetration, ensuring that the active ingredient reaches the water where it is released from the sand.

ALTOSAND® will prevent the emergence of species of the floodwater mosquito complex when applied to second, third, or fourth larval instars at a rate of 10 to 13 pounds per acre.

PREPARATION INSTRUCTIONS

The following materials are required to prepare a 100 lb batch of **ALTOSAND®**:

99 lb washed, dry sand (20 to 45 mesh)
0.5 lb **A.L.L.** (15 fl oz/lb)
0.5 lb HiSil 233 (silicon dioxide)
Small Funnel
Cement Mixer

1. Measure the time required for a level funnel full of sand to empty.
2. Into a rotating-type mixer, place 99 lb of dry (20 to 45 mesh) sand. While the mixer is rotating, slowly pour 0.5 lb (7.5 fl oz) of **A.L.L.** onto the sand. (If better wetting is required, **A.L.L.** may be diluted in up to an equal volume of water.)
3. Mix until the sand is uniformly coated with **A.L.L.** (usually 5 to 10 minutes).
4. Stop the mixer and add 0.5 lb of HiSil 233. Cover the mixer to reduce dust. Start the mixer and run for approximately 5 minutes. (The quantity of HiSil 233 necessary to achieve a dry, free-flowing mixture will vary depending on the particle size distribution and moisture of the sand.)
5. Compare the flow rate of the **ALTOSAND®** mixture with that of untreated sand in Step No. 1. Add more HiSil if it flows significantly slower and reduce the amount of HiSil in subsequent batches if the mixture flows at the same or a faster rate and is excessively dusty.

APPLICATION RATE AND METHODS

Apply at a rate of 10 to 13 lb of the final mixture per acre, using standard granular dispersal equipment.

Chemigation: Apply this product only through flood (basin), furrow, or border irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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.

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.

Flood (Basin), Furrow, and Border Chemigation: Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop stucture or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- 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 backflow.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 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 the pesticide distribution is adversely affected.
- 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 capable of being fitted with a system interlock.

A pesticide supply tank is recommended for the application of **A.L.L.** by chemigation.

CENTRAL
Garden & Pet

For information, call **1-800-248-7763** or
visit our Web site: **www.altosid.com**

EPA Reg. No. 2724-446
EPA Est. No. 2724-TX-1

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Prod. No. 37230F

300509082

Altosid® XR
EXTENDED RESIDUAL BRIQUETS

ZOECON

A SUSTAINED RELEASE PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE
(INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)

SPECIMEN LABEL

ACTIVE INGREDIENT:
(S)-Methoprene (CAS #65733-16-6))
(Dry Weight Basis): 2.1%
OTHER INGREDIENTS: 97.9%
Total. 100.0%

EPA Reg. No. 2724-421
EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE ADDITIONAL PRECAUTIONARY STATEMENTS

INTRODUCTION

ALTOSID® XR BRIQUETS are designed to release effective levels of (S)-Methoprene insect growth regulator over a period up to 150 days in mosquito breeding sites. Release of (S)-Methoprene insect growth regulator occurs by dissolution of the briquet. Soft mud and loose sediment can cover the briquets and inhibit normal dispersion of the active ingredient. The product may not be effective in those situations where the briquet can be removed from the site by flushing action.

ALTOSID® XR BRIQUETS prevent the emergence of adult mosquitoes including: *Anopheles, Culex, Culiseta, Coquillettidia,* and *Mansonia* spp., as well as those of the floodwater mosquito complex (*Aedes, Ochlerotatus,* and *Psorophora* spp.) from treated water. Treated larvae continue to develop normally to the pupal stage where they die.

NOTE: (S)-Methoprene insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

FIRST AID	
Call a poison control center or doctor for treatment advice.	
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 eye.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes.
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.	

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of unused product.

DIRECTIONS FOR USE

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

APPLICATION TIME

Place **ALTOSID® XR BRIQUETS** at or before the beginning of the mosquito season. Apply **ALTOSID® XR BRIQUETS** prior to flooding when sites are dry, or on snow and ice in breeding sites prior to spring thaw. Under normal conditions, one application will last the entire mosquito season, or up to 150 days, whichever is shorter. Alternate wetting and drying will not reduce their effectiveness.

APPLICATION RATES

***Aedes, Ochlerotatus,* and *Psorophora* spp.:** For control in non-(or low-) flow shallow depressions (≤ 2 feet in depth), treat on the basis of surface area, placing one **ALTOSID® XR BRIQUET** per 200 ft^2. Place briquets in the lowest areas of mosquito breeding sites to maintain continuous control as the site alternately floods and dries up.

***Culex, Culiseta* and *Anopheles* spp.:** Place one **ALTOSID® XR BRIQUET** per 100 ft^2.

Coquillettidia and *Mansonia* spp.: For application to cattail marshes and water hyacinth beds. For control of these mosquitoes, place one **ALTOSID® XR BRIQUET** per 100 ft^2.

***Culex* sp. in storm water drainage areas, sewers, and catch basins:** For catch basins, place one **ALTOSID® XR BRIQUET** into each basin. In cases of large catch basins, follow the chart below to determine the number of briquets to use. For storm water drainage areas, place one briquet per 100 ft^2 of surface area up to two ft deep. In areas that are deeper than two feet, use one additional briquet per two feet of water depth.

Water flow pressure increases the potential dissolution of the briquet. Conduct regular inspections (visual or biological) in areas of water flow to determine if the briquet is still present. Adjust the retreatment interval based on the results of an inspection.

ALTOSID® XR BRIQUETS Application Chart

Number of Briquets	Catch Basin Size (Gallons)	Surface Area/ Water Depth (ft)
1	0 – 1500	0 – 2
2	1500 – 3000	2 – 4
3	3000 – 4500	4 – 6
4	4500 – 6000	6 – 8

APPLICATION SITES

ALTOSID® XR BRIQUETS are designed to control mosquitoes in treated areas. Examples of application sites are: storm drains, catch basins, roadside ditches, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, animal watering troughs, cesspools and septic tanks, waste treatment and settling ponds, flooded crypts, transformer vaults, abandoned swimming pools, tires, construction and other manmade depressions, cattail marshes, water hyacinth beds, vegetation-choked phosphate pits, pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, treeholes, woodland pools, floodplains, and dredging spoil sites. For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water-holding sites in the system to maximize the efficiency of the treatment program.

STORAGE AND DISPOSAL

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

STORAGE: Store in a cool place. Do not reuse empty container.

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

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty container in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. To the extent permitted by law, 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 an emergency, call 1-800-248-7763.

www.altosid.com

Wellmark International
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173

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Made in USA

May, 2010
Schaumburg, IL

300507286

Altosid XR-G®

ZOËCON

AN EXTENDED RESIDUAL GRANULAR PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE
(INCLUDING THOSE MOSQUITOES WHICH MAY TRANSMIT WEST NILE VIRUS)

SPECIMEN LABEL

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)	1.5%
OTHER INGREDIENTS:	98.5%
Total	100.0%

EPA Reg. No. 2724-451
EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN
CAUTION

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes or skin. Due to the size and abrasiveness of the granule, use protective eyewear and clothing to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

FIRST AID
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 eye.
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. 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.

DIRECTIONS FOR USE

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

GENERAL DIRECTIONS

ALTOSID XR-G® releases effective levels of **ALTOSID®** insect growth regulator for up to 21 days after application. Applications should be continued throughout the entire season to maintain adequate control. Treated larvae continue to develop normally to the pupal stage where they die.

Rotary and fixed-wing aircraft equipped with granular spreaders capable of applying rates listed below may be used to apply **ALTOSID XR-G®**. Ground equipment which will achieve even coverage at these rates may also be used. Apply **ALTOSID XR-G®** uniformly and repeat application as necessary.

NOTE: ALTOSID® insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

APPLICATION TIME

Apply **ALTOSID XR-G®** at any stage of larval mosquito development. Granules may be applied prior to flooding (i.e., "pre-hatch" or "pre-flood") in areas which flood intermittently. In such areas, one application of **ALTOSID XR-G®** can prevent adult mosquito emergence from several subsequent floodings. The actual length of control depends on the duration and frequency of flooding events.

APPLICATION RATES

Aedes, Anopheles, and *Psorophora* spp.: Apply **ALTOSID XR-G®** at 5 - 10 lb/acre (5.6-11.2 kg/ha). *Culex, Culiseta, Coquillettidia,* and *Mansonia* spp.: Apply **ALTOSID XR-G®** at 10-20 lb/acre (11.2-22.4 kg/ha). Within these ranges, use lower rates when water is shallow [< 2 feet (60 cm)] and vegetation and/or pollution are minimal. Use higher rates when water is deep [≥ 2 feet (60 cm)] and vegetation and/or pollution are heavy.

APPLICATION SITES

Non-Crop Areas: ALTOSID XR-G® may be applied as directed above to temporary and permanent sites which support mosquito larval development. Examples of such sites include: snow pools, salt and tidal marshes, freshwater swamps and marshes (cattail, red cedar, white maple marshes), woodland pools and meadows, dredging spoil sites, drainage areas, ditches, wastewater treatment facilities, livestock runoff lagoons, retention ponds, harvested timber stacks, swales, storm water drainage areas, sewers, catch basins, tree holes, animal watering troughs, water-holding receptacles (e.g., tires, urns, flower pots, cans, and other containers), and other natural and manmade water-holding depressions.

Crop Areas: ALTOSID XR-G® may be applied as directed above to temporary and permanent sites which support mosquito larval development. Examples of such sites include: irrigated croplands, pastures, rangeland, vineyards, rice fields (domestic and wild), date palm, citrus, fruit, nut orchards, berry fields and bogs.

NOTE: Application of **ALTOSID XR-G®** to sites subject to water flow or exchange will diminish the product's effectiveness and may require higher application rates and/or more frequent applications.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Store closed containers of **ALTOSID XR-G®** in a cool, dry place.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling 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.

Always read the label before using this product.

For information call **1-800-248-7763**

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January, 2010
Schaumburg, IL

Aqualuer® 20-20

AllPro®

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.

A Synergized Permethrin Formulation

- For Effective Control of Adult Mosquitoes (including organophosphate resistant mosquitoes), Midges (Biting and Non-Biting) and Blackflies
- For ULV, Thermal and Barrier Applications using Ground and Aerial Equipment for control of Adult Mosquitoes and other biting flies.
- Formulation Allows Dilution with Water or Oil.

ACTIVE INGREDIENTS:	
*Permethrin	20.6%
**Piperonyl Butoxide	20.6%
OTHER INGREDIENTS:	58.8%
TOTAL:	100.0%

*(3-phenoxyphenyl) methyl (+/-) - *Cis/trans* -3-(2,2-dichloroethenyl) - 2,2 - Dimethyl cyclopropanecarboxylate. *Cis/trans* ratio: min. 35% (+/-) cis and max. 65% (+/-) *trans*.
**(butylcarbityl)(6-propylpiperonyl) ether and related compounds
Contains 1.75 pounds of Permethrin and 1.75 pounds of Piperonyl Butoxide per gallon.

KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente. (To the User: If you cannot read English, do not use this product until the label has been fully explained to you).

First Aid	
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 eye. • Call a poison control center or doctor for treatment advice.
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.
If Swallowed:	• Call a Poison Control Center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call 1-800-858-7378 for emergency medical treatment advice.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

DANGER: Corrosive. Causes irreversible eye damage. Causes skin irritation. Do not get in eyes, on skin, or on clothing. Harmful if absorbed through skin. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reations in some individuals.

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:

- Coveralls worn over short-sleeved shirt and short pants; Goggles or face shield;
- Chemical-resistant footwear plus socks;
- Chemical-resistant gloves made of any waterproof material (except for applicators using motorized ground equipment, pilots, and flaggers); and
- Chemical-resistant apron for mixers, loaders, persons cleaning equipment and persons exposed to the concentrate.

See Engineering Controls for additional requirements.

USER SAFETY REQUIREMENTS

Follow manufacturer's instruction 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 material 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 product is extremely 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 aquatic invertebrates.

When applying as a wide area mosquito adulticide, before making the first application in a 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.

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

When applying as a wide area mosquito adulticide, 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.

PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. Keep away from oxidizers.

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

Aqualuer 20-20 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 **Aqualuer 20-20** with ULV cold aerosol generators, thermail aerosol generators, mist-blowers, backpack sprayers, or handheld sprayers. Backpack sprayers, handheld sprayers and low-pressure hand sprayers may be used for barrier or surface applications.

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 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 and 0.007 lbs PBO per acre per application, or 0.18 lbs of permethrin per acre per season and 0.18 lbs PBO per acre 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-bourne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Aqualuer 20-20 can be applied 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: Almonds, Apples, Broccoli, Brussels sprouts, Cabbage, Celery, Cauliflower, Cherries, Corn (fodder), Corn (forage), Corn (grain), Eggplant, Leafy Vegetables (except Brassica) (leafy amaranth, arugula, cardoon, celery, celtuce, chervil, chrysanthemum, corn salad, garden & upland cress, dandelion leaves, dock, endive, fennel, sea kale, head & leaf lettuce, orach, parsley, garden and winter purslane, radicchio, rhubarb, spinach, Swiss chard, and tampala), Lettuce (head), Mushrooms, Onions (dry bulb), Peaches, Pears, Peppers (bell), Soybeans, Tomatoes, Vegetables (cucubit: balsam apple, balsam pear, cantaloupe, fruit chayote, cucumber, cucurbits, West Indian gherkin, edible gourd, melon, muskmelon, pumpkin, squash, watermelon, Chinese waxgourd), Walnuts

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.

Air temperatures should be greater than 50° F when conducting all types of applications. **Aqualuer 20-20** 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 houseflies.

Do not make applications during rain. 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 (Dv 0.5 < 30 mm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 mm). 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 pounds of permethrin per acre. An optimum swath is created when **Aqualuer 20-20** 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 is 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.

Aqualuer 20-20 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 of **Aqualuer 20-20**, 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: 3	Diluted 1: 4.5	Diluted 1: 6.5	Diluted 1: 9
0.0015	10	0.7	2.8	3.7	5.25	6.7
	15	1.05	4.2	5.5	7.88	10.0
	20	1.4	5.6	7.3	10.50	14.0
0.0035	10	1.55	6.2	8.6	11.7	15.6
	15	2.35	9.3	12.8	17.5	23.3
	20	3.1	12.5	17.2	23.4	
0.007	10	3.1	12.4	17.0	23.2	
	15	4.65	18.6	25.5		
	20	6.2	24.7			

*Dilution Instructions: Fill tank with the recommended amount of water, start agitation then add the correct amount of **Aqualuer 20-20**. 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 pounds of permethrin per acre adjust equip-ment to an output rate of 1.24 ounces per minute and walk at 4 mph. To apply 0.0035 pounds of permethrin per acre, dilute 1 part **Aqualuer 20-20** with 5 parts of diluent and apply at a rate of 3.8 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 (Dv 0.5 < 30 m) and that 90% of the spray is contained in droplets smaller than 48 microns (Dv 0.9 < 48 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 lbs. per acre. Base acreage calculations on a 300 feet swath. For best results, direct the thermal fog into and allow to drift through areas where adult mosquitoes are found.

Barrier Applications: To exclude and control resting or flying adult mosquitoes in areas such as 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, crawl spaces, transport trailers, abandoned or uninhabited buildings and other areas where adult mosquitoes find harborage.

When this product is applied as a barrier application, 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 0.126 oz. (3.73 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 low-pressure direct spray, non-ULV equipment, apply ***Aqualuer 20-20*** undiluted at a rate not to exceed 7.3 oz. per acre. If diluted apply at a rate not to exceed 0.1 lbs. permethrin a.i. per acre. Diluted or undiluted applications may be made into 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. Do not apply more than 0.18 lbs. permethrin a.i. per year to the same site.

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, crawl spaces under buildings, abandoned buildings or uninhabited buildings. Apply **Aqualuer 20-20** diluted or undiluted using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this type of application. **Aqualuer 20-20** may be applied at rates up to but not exceeding 0.007 lbs. permethrin per acre.

AERIAL APPLICATION

Apply **Aqualuer 20-20** either diluted or undiluted at rates up to 0.007 lbs. permethrin/PBO per acre by fixed wing or rotary aircraft equipped with a spraying system capable of making a ULV application.

Aerial application of **Aqualuer 20-20** shall be made at altitudes randing 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 Aqualuer 20-20 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 Aqualuer 20-20 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.

Aerial Application made at ≤ 200 feet above ground elevation:
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 (Dv 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 145 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.

Aerial Application made at > 200 feet above ground elevation:
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 70 microns (Dv 0.5 < 70 µm) and that 90% of the spray is contained in droplets smaller than 145 microns (Dv 0.9 < 145 µm). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equiment manufacturer or vendor, pesticide registrant or a test facility using 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.

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal.
Pesticide 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: 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 Handling:
Nonrefillable container: Do not reuse or refill this container. Triple rinse or pressure rinse container 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 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. **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. **Pressure Rinse as Follows:** Empty the remining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure-rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seonds. Drain for 10 seconds after the flow begins to drip. Offer for recyling, if available.

READ ENTIRE LABEL BEFORE USING

Read the entire **Directions for Use, Conditions, Disclaimer of Warranties, and Limitation of Liability** before using this product. By using this product, User and Buyer accept the following Conditions and Disclaimer.

CONDITIONS: The Directions for Use of this product are believed to be adequate and should be followed carefully. HOwever it is impossible to eliminate all risks associated with the use of this product. Injury, ineffectiveness or other unintenended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use orr application, all of which are beyond the control of **Value Garden Supply**. All such risks shall be assumed by the User or Buyer.

DISCLAIMER: Value Garden Supply warrants that this product conforms to the chemical description on the label and is reasonably fit for the specific purposes fererred to in the Directions For Use, subject to the inherent risks referred to above. To the extent provided by law, **Value Garden Supply** makes no other express or implied warranty of fitness or merchantability nor any other express or implied warranty. To the extent provided by law **Value Garden Supply** shall not be liable for any consequential, special, or indirect damages resulting from the use, handling or application of this product.

EPA Reg. No 769-985
EPA Est. No. 44616-MO-1

Value Garden Supply
P.O. Box 585 St. Joseph, MO 64502
(248) 773-7460
www.allprovector.com
RM# 22039-9-13

BACKPACK SPRAYER ULV APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 50 foot swath. Dilute AQUA-RESLIN with water and apply at the rate of 8 ounces of finished spray per acre (based on a 50 foot swath, 8 ounces should be applied while walking 870 feet). To apply 0.0035 pounds of permethrin per acre, dilute 1 part AQUA-RESLIN with 31 parts water and apply at the rate listed above. To apply 0.007 pounds of permethrin per acre, dilute 1 part AQUA-RESLIN with 15 parts of water and apply at the rate listed above.

URBAN ULV MOSQUITO CONTROL APPLICATIONS: For control of resting or flying adult mosquitoes, biting flies, and 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. AQUA-RESLIN may be applied using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers, or other spray equipment suitable for this application. Apply AQUA-RESLIN at rates up to but not exceeding 0.007 pounds permethrin per acre.

AERIAL APPLICATION

AQUA-RESLIN may be applied either diluted or undiluted at rates of 0.0035 to 0.007 pounds permethrin per acre by fixed wing or rotary aircraft that are capable of making a ULV application. Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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.

For best results, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. In order to compensate for windy conditions and ensure drift onto the target area, aerial application with aircraft equipped with Global Positioning Systems (GPS) is recommended.

BARRIER APPLICATIONS: For control and exclusion of resting or flying adult mosquitoes in areas such as animal quarters, roadsides, urban areas, residential areas, industrial areas, golf courses, parks, recreational areas, tire piles, and all public areas where adult mosquitoes may occur. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, storage buildings, empty rail cars, truck transport trailers, abandoned buildings, and other areas where adult mosquitoes find harborage. For application to resting or aggregation surfaces using low pressure hand sprayers or other similar equipment which has demonstrated the capacity to deliver an even distribution of the labeled rate over the desired treatment area, mix 2.8 oz in one gallon of water and apply sufficient spray to dampen surface, approximately 700 - 750 square feet of treated area. For application using backpack mist blower equipment, apply undiluted product at a rate not to exceed 7.7 oz per acre or diluted at a rate not to exceed 0.1 lbs ai per acre. Direct spray onto foliage at the perimeter of areas from which mosquitoes or flies are to be excluded or direct spray into harborage areas or resting areas where adult mosquitoes or flies may be found. When this product is applied as a barrier application using low pressure hand sprayers, or hydraulic sprayers, do not apply within 100 feet (30 meters) of lakes and streams.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

- Treatment to soil or vegetation around structures;
- Application to lawns, turfs, and other vegetation; and
- Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches, and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications, only.

IN NEW YORK: THIS PRODUCT IS NOT REGISTERED FOR USE IN THE STATE OF NEW YORK. THE STATE OF NEW YORK PROHIBITS DISTRIBUTION, SALE OR USE IN THE STATE OF NEW YORK.

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

STORAGE AND DISPOSAL

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

PESTICIDE 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. 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. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Produced for:
Bayer
Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

Aqua-Reslin®

[illegible]

[illegible]

[illegible]

FIRST AID	
IF SWALLOWED:	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by the 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 eyelid 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 eye. • Call a poison control center or doctor for immediate treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-800-334-7577.	
Note to Physician - Contains petroleum distillates. May pose an aspiration pneumonia hazard.	

For Product Information call Toll-Free: 1-800-331-2867.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber greater or equal to 14 mils or neoprene rubber greater or equal to 14 mils. 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-sleeved 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 the concentrate.

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 this product's concentrate. Do not reuse them.

See engineering controls for additional requirements.

Engineering controls

Pilots must use an enclosed cockpit that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.24(d)(5)].

Human flagging is prohibited. Flagging to support aerial application is limited to 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 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 aquatic invertebrates.

Before making the first application in a 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 water when disposing of equipment rinsate or wash waters.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are actively 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. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL FOR DIRECTIONS

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

NOTICE: This concentrate is for dilution with water only; it can not be diluted in oil.

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.

APPLICATION INSTRUCTIONS

Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. Do not retreat a site more than once in 3 days. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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.

Do not make applications during rain. Not for use in metered release systems.

Not for use in outdoor residential misting systems.

AQUA-RESLIN® is approved for application as an Ultra-Low Volume (ULV) aerosol to control adult mosquitoes and flies in residential, industrial, urban, recreational, and other areas where adult mosquitoes and flies are found. The formulation greatly reduces the evaporation rate of water from the droplets and allows the water-based spray cloud to behave as that produced by a typical oil-based formulation. AQUA-RESLIN is also approved for application with mist-blowers, backpack sprayers, handheld sprayers, and low pressure hand sprayers for barrier or surface applications. AQUA-RESLIN is used for control of annoyance flies and mosquitoes, mosquitoes and flies of public health or disease vector importance in areas such as but not limited to residential areas, industrial areas, urban areas, parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, and other areas where adult mosquitoes and flies occur. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. Do not retreat site more than once in 3 days. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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.

This product can be applied to the air column over specific growing crops prior to harvest and range grasses for the control of adult mosquitoes and biting flies within or adjacent to

these areas. Application can be made where the following crops are present:

Alfalfa, Almonds, Apples, Artichoke, Asparagus, Avocado, Broccoli, Brussel sprouts, Cabbage, Cantaloupe, Cauliflower, Celery, Cherry, Corn (field and pop), Corn (sweet), Eggplant, Filberts (Hazelnuts), Garlic, Horseradish, Lettuce, Onions (dry bulb only), Papayas (FL only), Peaches / Nectarines, Pears, Bell peppers, Pistachios, Potatoes, Soybeans, Spinach, Tomatoes, and Walnuts.

Cucurbit vegetables, including Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucurza, hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of Cucumis melo including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden persian melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (includes Summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of Citrullus lanatus).

Leafy Vegetables, including Leafy vegetables (except brassica); Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Cherviil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach)).

In the treatment of corrals, feed lots, swine lots, poultry ranges and zoos cover any exposed drinking water, drinking fountains and animal feed before application.

AQUA-RESLIN provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance flying insects such as houseflies.

Spray Droplet Size Determination

Ground Equipment:

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (D_v 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (D_v 0.9 < 50µm). 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 Application made at ≤200 feet above ground elevation:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (D_v 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 100 microns (D_v 0.9 < 100 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. Apply when wind speed is equal to or greater than 1 mph.

Aerial Application made at >200 feet above ground elevation:

Spray equipment must be adjusted so that the volume median diameter produced is less than 70 microns (D_v 0.5 < 70 µm) and that 90% of the spray is contained in droplets smaller than 145 microns (D_v 0.9 < 145 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. All types of applications should be conducted at temperatures above 50°F. Apply when wind speeds are equal to or greater than 1 mph.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators or Vehicle-Mounted Non-Thermal Aerosol (Cold Fog): Apply through non-thermal ULV application equipment and base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. An optimum swath is created when AQUA-RESLIN® is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even 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 in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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. Application during the cooler hours of the night or early morning is recommended. Apply when wind speed is equal to or greater than 1 mph.

AQUA-RESLIN may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of AQUA-RESLIN, the flow rate of the insecticide from the application equipment and the vehicle speed. Examples are given in the following table:

Flow Rate (Fluid Ounces Per Minute)						
Application Rate (lb permethrin/Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 4.5	Diluted 1 + 9
0.0015	10	0.70	1.40	2.10	3.8	7.0
	15	1.05	2.10	3.10	5.7	10.5
	20	1.40	2.80	4.20	7.6	14.0
0.0035	10	1.63	3.25	4.90	8.9	16.3
	15	2.45	4.90	7.30	13.4	24.4
	20	3.25	6.50	9.80	17.9	32.6
0.007	10	3.25	6.50	9.80	17.9	
	15	4.89	9.70	14.60	26.5	
	20	6.53	12.90	19.50	35.4	

Where dense vegetation is present, the use of higher rates and/or slower speeds is recommended.

Aqua-Reslin®

FOR USE ONLY BY FEDERAL, STATE, TRIBAL OR LOCAL GOVERNMENT OFFICIALS PERFORMING PUBLIC HEALTH OR VECTOR CONTROL, OR BY PERSONS GENERALLY RECOGNIZED BY COMPETENT STATE AUTHORITIES AS HAVING EQUIVALENT QUALIFICATIONS AND ACTING UNDER THEIR DIRECTION, ABOUT MOSQUITO CONTROL APPLICATIONS, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION.

- A Synergized Permethrin Formulation
- Effective Against Most Pests, Including organophosphate resistant species, Midge (biting and non-biting), and Black Gnats
- For Use as a Space Spray by Air and Ground Application to Control Adult Mosquitoes
- Uses Water as a Diluent
- Fast and Effective Control of Adult Mosquitoes
- Provides Quick Knockdown and Effective Control of Mosquitoes, Black Flies, Gnats, Biting and Non-biting Midges as well as other Biting Flies
- For Aerial or Ground Application
- For Barrier / Surface Application
- A FEASTM Formulation
- May Be Applied Undiluted or Diluted in Water
- ULV application provides excellent control at Rates Up to 0.007 Pounds Permethrin Per Acre

ACTIVE INGREDIENTS:

Permethrin	20.0%
*Piperonyl Butoxide	20.0%
OTHER INGREDIENTS**	60.0%
	100.0%

*Butylcarbityl (6-propylpiperonyl) ether and related compounds
**Contains Petroleum Distillates
Contains 1.67 pounds of permethrin and 1.67 pounds of piperonyl butoxide per gallon
EPA Reg. No. 432-796

PARA EL USUARIO: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada completamente.

TO THE USER: If you can not read English, do not use this product until the label has been fully explained to you.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See inside leaflet for complete First Aid Instructions, Precautionary Statements, Directions for Use and Storage and Disposal Instructions

BACKED by BAYER

Net Contents
2.5 Gallons

04972383
05353504D 110922AV1

FIRST AID	
IF SWALLOWED:	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by the 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 eyelid 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 eye. • Call a poison control center or doctor for immediate treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-800-334-7577.	
Note to Physician - Contains petroleum distillates. May pose an aspiration pneumonia hazard.	

For Product information call Toll-Free: 1-800-331-2867.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber greater or equal to 14 mils or neoprene rubber greater or equal to 14 mils. 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-sleeved 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 the concentrate.

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 this product's concentrate. Do not reuse them.

See engineering controls for additional requirements.

Engineering controls

Pilots must use an enclosed cockpit that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.24(d)(6)].

Human flagging is prohibited. Flagging to support aerial application is limited to 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 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 aquatic invertebrates.

Before making the first application in a 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 water when disposing of equipment rinsate or wash waters.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are actively 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. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL FOR DIRECTIONS

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

NOTICE: This concentrate is for dilution with water only; it can not be diluted in oil.

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.

APPLICATION INSTRUCTIONS

Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. Do not retreat a site more than once in 3 days. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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.

Do not make applications during rain. Not for use in metered release systems.

Not for use in outdoor residential misting systems.

AQUA-RESLIN® is approved for application as an Ultra-Low Volume (ULV) aerosol to control adult mosquitoes and flies in residential, industrial, urban, recreational, and other areas where adult mosquitoes and flies are found. The formulation greatly reduces the evaporation rate of water from the droplets and allows the water-based spray cloud to behave as that produced by a typical oil-based formulation. AQUA-RESLIN is also approved for application with mist-blowers, backpack sprayers, handheld sprayers, and low pressure hand sprayers for barrier or surface applications. AQUA-RESLIN is used for control of annoyance flies and mosquitoes, mosquitoes and flies of public health or disease vector importance in areas such as but not limited to residential areas, industrial areas, urban areas, parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, and other areas where adult mosquitoes and flies occur. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. Do not retreat site more than once in 3 days. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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.

This product can be applied to the air column over specific growing crops prior to harvest and range grasses for the control of adult mosquitoes and biting flies within or adjacent to

these areas. Application can be made where the following crops are present:

Alfalfa, Almonds, Apples, Artichoke, Asparagus, Avocado, Broccoli, Brussel sprouts, Cabbage, Cantaloupe, Cauliflower, Celery, Cherry, Corn (field and pop), Corn (sweet), Eggplant, Filberts (Hazelnuts), Garlic, Horseradish, Lettuce, Onions (dry bulb only), Papayas (FL only), Peaches / Nectarines, Pears, Bell peppers, Pistachios, Potatoes, Soybeans, Spinach, Tomatoes, and Walnuts.

Cucurbit vegetables, including Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of Cucumis melo including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (includes Summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of Citrullus lanatus).

Leafy Vegetables, including Leafy vegetables (except brassica); Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach)).

In the treatment of corrals, feed lots, swine lots, poultry ranges and zoos cover any exposed drinking water, drinking fountains and animal feed before application.

AQUA-RESLIN provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance flying insects such as houseflies.

Spray Droplet Size Determination

Ground Equipment:

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (D_V 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (D_V 0.9 < 50µm). 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 Application made at ≤200 feet above ground elevation:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (D_V 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 100 microns (D_V 0.9 < 100 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. Apply when wind speed is equal to or greater than 1 mph.

Aerial Application made at >200 feet above ground elevation:

Spray equipment must be adjusted so that the volume median diameter produced is less than 70 microns (D_V 0.5 < 70 µm) and that 90% of the spray is contained in droplets smaller than 145 microns (D_V 0.9 < 145 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. All types of applications should be conducted at temperatures above 50°F. Apply when wind speeds are equal to or greater than 1 mph.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators or Vehicle-Mounted Non-Thermal Aerosol (Cold Fog): Apply through non-thermal ULV application equipment and base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. An optimum swath is created when AQUA-RESLIN® is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even 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 in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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. Application during the cooler hours of the night or early morning is recommended. Apply when wind speed is equal to or greater than 1 mph.

AQUA-RESLIN may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of AQUA-RESLIN, the flow rate of the insecticide from the application equipment and the vehicle speed. Examples are given in the following table:

Flow Rate (Fluid Ounces Per Minute)						
Application Rate (lb permethrin/Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 4.5	Diluted 1 + 9
0.0015	10	0.70	1.40	2.10	3.8	7.0
	15	1.05	2.10	3.10	5.7	10.5
	20	1.40	2.80	4.20	7.6	14.0
0.0035	10	1.63	3.25	4.90	8.9	16.3
	15	2.45	4.90	7.30	13.4	24.4
	20	3.25	6.50	9.80	17.9	32.6
0.007	10	3.25	6.50	9.80	17.9	
	15	4.89	9.70	14.60	26.5	
	20	6.53	12.90	19.50	35.4	

Where dense vegetation is present, the use of higher rates and/or slower speeds is recommended.

BACKPACK SPRAYER ULV APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 50 foot swath. Dilute AQUA-RESLIN with water and apply at the rate of 8 ounces of finished spray per acre (based on a 50 foot swath, 8 ounces should be applied while walking 870 feet). To apply 0.0035 pounds of permethrin per acre, dilute 1 part AQUA-RESLIN with 31 parts water and apply at the rate listed above. To apply 0.007 pounds of permethrin per acre, dilute 1 part AQUA-RESLIN with 15 parts of water and apply at the rate listed above.

URBAN ULV MOSQUITO CONTROL APPLICATIONS: For control of resting or flying adult mosquitoes, biting flies, and 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. AQUA-RESLIN may be applied using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers, or other spray equipment suitable for this application. Apply AQUA-RESLIN at rates up to but not exceeding 0.007 pounds permethrin per acre.

AERIAL APPLICATION

AQUA-RESLIN may be applied either diluted or undiluted at rates of 0.0035 to 0.007 pounds permethrin per acre by fixed wing or rotary aircraft that are capable of making a ULV application. Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed 0.18 pounds of permethrin per acre) in any given season. More frequent applications 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.

For best results, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. In order to compensate for windy conditions and ensure drift onto the target area, aerial application with aircraft equipped with Global Positioning Systems (GPS) is recommended.

BARRIER APPLICATIONS: For control and exclusion of resting or flying adult mosquitoes in areas such as animal quarters, roadsides, urban areas, residential areas, industrial areas, golf courses, parks, recreational areas, tire piles, and all public areas where adult mosquitoes may occur. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, storage buildings, empty rail cars, truck transport trailers, abandoned buildings, and other areas where adult mosquitoes find harborage. For application to resting or aggregation surfaces using low pressure hand sprayers or other similar equipment which has demonstrated the capacity to deliver an even distribution of the labeled rate over the desired treatment area, mix 2.8 oz in one gallon of water and apply sufficient spray to dampen surface, approximately 700 - 750 square feet of treated area. For application using backpack mist blower equipment, apply undiluted product at a rate not to exceed 7.7 oz per acre or diluted at a rate not to exceed 0.1 lbs ai per acre. Direct spray onto foliage at the perimeter of areas from which mosquitoes or flies are to be excluded or direct spray into harborage areas or resting areas where adult mosquitoes or flies may be found. When this product is applied as a barrier application using low pressure hand sprayers, or hydraulic sprayers, do not apply within 100 feet (30 meters) of lakes and streams.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

- Treatment to soil or vegetation around structures;
- Application to lawns, turfs, and other vegetation; and
- Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches, and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications, only.

IN NEW YORK: THIS PRODUCT IS NOT REGISTERED FOR USE IN THE STATE OF NEW YORK. THE STATE OF NEW YORK PROHIBITS DISTRIBUTION, SALE OR USE IN THE STATE OF NEW YORK.

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

STORAGE AND DISPOSAL

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

PESTICIDE 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. 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. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Produced for:
Bayer
Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

6.75"

6.75"

Aqua-Reslin®

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- **A Synergized Permethrin Formulation**
- ***For Effective Adult Mosquito (including organophosphate resistant species), Midge (biting and non-biting) and Blackfly Control***
- ***For use as a Space Spray by Air and Ground Application to Control Adult Mosquitoes***
- ***Uses Water as a Diluent***
- ***Fast and Effective Control of Adult Mosquitoes***
- ***Provides Quick Knockdown and Effective Control of Mosquitoes, Black Flies, Gnats, Biting and Non-Biting Midges as well as other Biting Flies***
- ***For Aerial or Ground Application***
- ***For Barrier / Surface Application***
- ***A FFAST™ Formulation***
- ***May be Applied Undiluted or Diluted in Water.***
- ***ULV application provides excellent control at Rates Up to 0.007 Pounds Permethrin Per Acre.***

ACTIVE INGREDIENTS:

Permethrin	**20.0%**
***Piperonyl Butoxide**	**20.0%**
OTHER INGREDIENTS**	**60.0%**
	100.0%

***(butylcarbityl)(6-propylpiperonyl)ether and related compounds**
****Contains Petroleum Distillates**

Contains 1.67 pounds of permethrin and 1.67 pounds of piperonyl butoxide per gallon

EPA Reg. No. 432-796

PARA EL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.
(TO THE USER: If you can not read English, do not use this product until the label has been fully explained to you.)

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF SWALLOWED:	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by the 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 eyelid 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 eye. • Call a poison control center or doctor for immediate treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-800-334-7577.	
Note to Physician - Contains petroleum distillates. May pose an aspiration pneumonia hazard.	

For Product Information call Toll-Free: 1-800-331-2867.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS

This pesticide is extremely 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 aquatic invertebrates.

Before making the first application in a 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 water when disposing of equipment rinsate or wash waters.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are actively 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. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

STORAGE AND DISPOSAL

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

PESTICIDE 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. 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. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Net Contents

2.5 Gallons

04972383

05353504D 110922AV1

BACKED by BAYER.

Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

PULL HERE TO OPEN

COCOBEAR™
Mosquito Larvicide Oil

Kills larvae and pupa stages of mosquitoes. Physical control of mosquito broods: kills by suffocation - mosquitoes do not develop resistance. Prevents mosquito emergence.

Standing water treatment. Use on: ponds, pools, ditches, standing water within irrigated croplands and pastures, flood waters, and other listed areas where mosquitoes develop.

ACTIVE INGREDIENT	
Mineral Oil*	10.0%
OTHER INGREDIENTS	90.0%
TOTAL	100.0%

* Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. 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.
NOTICE TO PHYSICIANS: This product contains petroleum distillate and may pose an aspiration pneumonia hazard.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

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

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 this product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, 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. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this pesticide is used. Consult with the State or tribal agency with primary authority for regulating pesticides before applying this product to public waters to determine if a permit is needed.

DIRECTIONS FOR USE

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

This product may cause injury to plants in the treatment area. Stressed plants may be more susceptible.

COCOBEAR may only be used to control mosquito larvae and pupae. COCOBEAR leaves a thin film on the surface of treated, non-flowing water and kills mosquito larvae and pupae by suffocation. COCOBEAR kills immature mosquitoes where they develop.

This product may be used for surface applications to standing water within irrigated croplands and pastures, drainage areas, ditches, stagnant pools, swamps, marshes, temporary rain pools, sloughs, log ponds, open sewage basins, settling ponds, catch basins, waste tires and intermittently flooded areas.

Apply at uniform rates of 3 gallons per surface acre (for smaller areas, treat at 10 ounces per 1,000 sq. ft. or 1 1/2 quart per 5,000 sq. ft.). Where there is extremely dense vegetation or if the water to be treated is high in organic content, up to 5 gallons per acre (15 ounces per 1,000 sq. ft. or 2 quarts per 5,000 sq. ft.) may be used.

When applying by aerial application, adjust spray volume up to 5 gallons per acre dependent on vegetation and surface conditions. 3 gallons per acre (36 gallons per 100 ft swath mile) is likely to be sufficient for most conditions.

Spray Drift Management

A variety of factors including weather conditions (e.g. wind direction, wind speed, temperature, and relative humidity) and method of application (e.g. ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply this product at wind speeds greater than 15 mph at the application site.

Droplet Size: Apply as a medium or coarser spray (ASABE Standard

572), and the minimum mean volume diameter (VMD) for spinning atomizer nozzles.

Temperature Inversions: Application is allowed under stable and/or temperature inversion conditions as long as application is done below the point in the atmosphere where the inversion begins and the droplet size meets the dimensions of very coarse or extremely coarse as defined in ASABE Standard 572 (VMD of 400-500 microns).

Release Height for Ground Applications: Apply using a nozzle height of no more than 4 feet above the surface.

Aerial Applications: Applications must conform to the requirements indicated above regarding wind speed, droplet size, and temperature inversions and to the additional requirements listed below.

Release Height: Aircraft altitude should be maintained at the lowest altitude necessary for aircraft safety in order to reduce the exposure of droplets to evaporation and wind.

Boom Length: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Nozzle placement may be extended to 100% of rotor blade diameter when very coarse droplets of VMD 400-500 microns (ASABE Standard 572) are used. Orient nozzles to spray backward and parallel to the air stream.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the upwind and downwind edges of the application area by adjusting the path of the aircraft upwind.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store upright at room temperature. In case of spill or leakage, soak up with absorbent material such as sand, sawdust, earth, fuller's earth, etc.

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

CONTAINER DISPOSAL:

(REFILLABLE DRUMS & TOTES): 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 the container before refilling is the responsibility of the refiller. To clean the container before disposal, drain the container until it is empty. Add a minimum amount of clean water to allow recirculation through the pump, meter and hoses. A commercial tank-cleaning detergent may be used, if desired. Thoroughly drench the interior sides, ceiling, and floor of the container. Using a steam-cleaning process or a high-pressure/low-water process, clean sides, ceiling, and floor of container. Recirculate wash water through the pump, meter and hoses. Drain the tank. Dispose of wash water or rinsate with pesticide waste. Offer cleaned container for recycling, if available, or puncture and dispose of it in a sanitary landfill, or by other procedures approved by State and local authorities.

(2.5 GALLON JUGS): Nonrefillable container. Do not reuse or refill this container. When container is empty, drain it completely, then puncture and dispose of it in a sanitary landfill or by other procedures approved by State and local authorities.

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. 8329-93

Available Packaging: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, BULK

EPA EST. NO._____

LOT NO: Marked on Container Label

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

NOTICE: To the extent consistent with applicable law, Clarke Mosquito Control Products, Inc. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

AL0337

RESTRICTED USE PESTICIDE
DUE TO EYE AND SKIN CORROSIVITY HAZARD
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.

DIBROM® CONCENTRATE

INSECTICIDE

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. NOT FOR USE IN AND AROUND THE HOME BY HOMEOWNERS OR PROFESSIONAL APPLICATORS.

ACTIVE INGREDIENT:
Naled (1,2-dibromo-2,2-dichloroethyl dimethyl phosphate) 87.4%
INERT INGREDIENTS: 12.6%
TOTAL: 100.0%

Contains 13.2 pounds naled per gallon.
Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN
DANGER / PELIGRO
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.)

FIRST AID Organophosphate	
If in eyes:	• Hold eye open and rinse slowly and gently from the side of the eye with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
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.
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 inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth unless individual is contaminated with product. • Call a poison control center or doctor for further treatment advice.

EMERGENCY INFORMATION

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

FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:
For Medical Emergencies phone: 1-888-681-4261
For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC® 1-800-424-9300
For Product Use Information phone: AMVAC® 1-888-462-6822

NOTE TO PHYSICIAN

Naled is an organophosphate cholinesterase inhibitor. Contains petroleum distillates. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (Protopam) is also antidotal and may be used in conjunction with atropine, but should not be used alone. Probable mucosal damage may contraindicate the use of gastric lavage. May pose an aspiration pneumonia hazard.

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

EPA Reg. No. 5481-480
☐EPA Est. No. 5481-CA-1
☐EPA Est. No. 5481-AL-1

Net Contents:
☐ 30 gallons ☐ 60 gallons ☐ 300 gallons

AMVAC
4100 E. Washington Blvd., Los Angeles, CA 90023 U.S.A.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. CORROSIVE. Causes irreversible eye and skin damage. Causes skin burns. May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and Viton®.

Mixers, loaders, and other handlers must wear:

- Protective eye wear (goggles, face shield, or safety glasses)
- Long-sleeved shirt and long pants
- Socks plus shoes
- Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber, or Viton, selection category E) and apron when mixing or loading.

See engineering controls for additional requirements.

In addition, mixers and loaders must:

- Have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown, the PPE specified below for handlers engaged in those activities for which use of an engineering control is not possible.

Mixers, loaders, applicators (except aerial applicators in a cab/cockpit) and other handlers engaged in those handler activities for which use of an engineering control is not possible, such as cleaning up a spill or leak and cleaning or repairing contaminated equipment, must wear:

- Protective eye wear (goggles, face shield, or safety glasses)
- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant apron if exposed to the concentrate
- Chemical-resistant headgear for overhead exposure
- A respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23G), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter. Please note that N designation for respirator filters does not apply when application is made with oils.

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 this product's concentrate. Do not reuse them.

ENGINEERING CONTROLS

- Mixers and loaders supporting aerial or mechanical ground applications must use a closed system designed by the manufacturer to enclose the pesticide to prevent it from contacting handlers or other people *AND* the system must be functioning properly and must be used and maintained in accordance with the manufacturer's written operating instructions.

- The system must be capable of removing the pesticide from the shipping container and transferring it into mixing tanks and/or application equipment.
- At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut-off device that is warranted by the manufacturer to minimize drippage to not more than 2 mL. per disconnect point.

In addition, mixers and loaders must:

- Wear the personal protective equipment required in the PPE section of this labeling for mixer/loaders.
- Wear protective eyewear if the system operates under pressure.
- Be provided and have immediately available for use in case of an emergency, such as a broken package or spill, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible.

Aerial applicators in a cab/cockpit must:

- Be provided and have immediately available for use in case of an emergency repair of the application equipment, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible.
- Take off any PPE that was contaminated before entering or reentering the cab/cockpit.
- Store all such PPE in a closed, chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab/cockpit.
- NOTE: Aerial applicators are not required to use an enclosed cab/cockpit and are not required to wear PPE while in the cab/cockpit.

Motorized ground-equipment applicators must:

- Be provided and have immediately available for use in case of an emergency repair of the application equipment, the PPE specified in the PPE section of this labeling for handlers engaged in those activities for which use of an engineering control is not possible.
- Take off any PPE that was contaminated before entering or reentering the cab/cockpit.
- Store all such PPE in a closed, chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab/cockpit.
- Use an enclosed cab with a nonporous barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. The cab must either have a properly functioning ventilation system that is used and maintained according to the manufacturer's written operating instructions and is declared in writing by the manufacturer or by a governmental agency to provide at least as much protection as the type of respirator listed in the PPE section above **or** the occupant must wear a respirator as specified in the PPE section above.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

It is recommended that any worker displaying clinical signs of cholinesterase-inhibition, such as headaches, nausea, and dizziness have an immediate physical examination including appropriate cholinesterase measurements. If initial examination was not conducted by a board-certified person who is certified in occupational health, then a separate examination should be conducted within 24 hours by a person so certified.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and wildlife. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, consult with the primary State agency responsible for regulating the pesticide to determine if permits are required or regulatory mandates exist. Do not apply over bodies of water (e.g., lakes, swamps, rivers,

permanent streams, natural ponds, commercial fish ponds, 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 washwaters or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. To minimize hazard to bees, it is recommended that the product is not applied more than two hours after sunrise or two hours before sunset, limiting application to times when bees are least active. Do not apply this product or allow it to drift to blooming crops or weeds while 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 the tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

Before making the first application of the season, consult with the primary State agency responsible for regulating the use of pesticides to determine if permits are required or regulatory mandates exist.

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product shall be the exclusive risk of user, applicator and/or application advisor. Read and follow the entire label of each product to be used in the tank mix with this product.

DIBROM Concentrate is a special formulation for the control of mosquitoes, flies and certain other nuisance insects. **This product cannot be diluted with water.**

APPLICATION RESTRICTIONS

For application by, or under the supervision of, personnel certified/trained in public health pest control or mosquito control. For each application, a record must be kept of:

- Date, time and areas where application occurred
- Type and size of spray nozzle used
- Dilution and application rate
- Speed of application vehicle (whether air or ground)
- A description of insecticide delivery system used for the specific application
- Climate factors (e.g., ambient temperature, wind speed/direction) as determined using reliable means
- Employees involved in mixing, loading and applying DIBROM Concentrate.

These records must be kept by the responsible public agency or their designee for a minimum of two years using storage methods that will allow the records to be easily retrieved.

Any system used to apply this product <u>must</u> be capable of providing the correct droplet size as specified below. Likewise, all applications <u>must</u> use the correct droplet size as specified below. Careful attention to directions concerning nozzles, nozzle positioning, air speed and droplet size is essential to avoid unwanted effects. Under-atomization produces large droplets that will quickly fall to the ground, while over-atomization produces finer droplets which either evaporate, dissipate, or drift in an unanticipated manner. Correct droplet size is critical to ensure effective mosquito control.

The entire spray system must be inspected before each operation to correct any leaks or obstructions, to detect whether the nozzle, hoses, or other parts are worn and need replacement, to ensure that the flow is properly calibrated and to determine that adequate pressure is being maintained. Adequate cleaning and maintenance of the

unit must be performed to ensure that the entire system is operating properly. Spray system components essential for correct droplet size must be cleaned or replaced as needed to ensure correct droplet size.

Spray during periods when ground level wind speed is equal to or greater than 1 mph. Apply when thermal activity is low. Do not apply when ambient temperature is less than 50°F.

Do not apply when it is raining in the treatment area.

Treatment of a site must be based on pest surveillance results. Do not treat any site more than 1 time per day. Do not treat any site with more than 2 fl. oz. of undiluted DIBROM Concentrate per acre within a 7 day period and the amount of undiluted DIBROM Concentrate applied to any site must not exceed 104 fl. oz. (10.73 pounds of naled a.i./acre) per year. More frequent treatments may be 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.

Ground-Based Application:

Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 40 microns (Dv 0.5 < 40 μm) and that 90% of the spray is contained in droplets smaller than 75 microns (Dv 0.9 < 75 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 Application:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 μm) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 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 accetable 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.

OPERATIONAL USE INSTRUCTIONS:

- All equipment used in the mixing or application (by ground or air) of DIBROM Concentrate must be constructed of corrosion-resistant materials. Stainless steel, bronze, brass, fiberglass, polypropylene and rigid PVC have all proven to be adequately resistant to the effects of DIBROM Concentrate when properly maintained and inspected.
- Use of Teflon® or Viton seals is recommended. Even when these materials are used to construct a spray system, a careful maintenance program involving flushing, cleansing and constant inspection must be followed. Avoid use of steel or galvanized steel.
- Strain DIBROM Concentrate as it is being loaded. Use a 100 mesh stainless steel or nylon screen. If product crystallization occurs, warm at 80°F until crystals disappear. The use of DIBROM Concentrate and some grades of diesel fuel may result in precipitates which cause nozzle clogging and operational difficulties.
- Flushing the system following application is required. Use of heavy aromatic naphtha "Jet A" aircraft fuel, Aromatic 150, Aromatic 200, and Aromatic 200ND have been successful.
- DIBROM Concentrate must be applied using the correct droplet size. Over-atomization produces finer droplets which either evaporate or dissipate too quickly and become unavailable for mosquito contact. If applied incorrectly, DIBROM Concentrate will spot certain automobile paint finishes. Careful attention to recommendations concerning nozzles, nozzle positioning, air speed and droplet size is essential to avoid paint spotting.

ADULT MOSQUITO CONTROL

Adult Mosquito Control in Residential Areas, Municipalities, Tidal Marshes, Swamps, Woodlands, and Agricultural Areas (when applied in wide-area public pest control programs sponsored by governmental entities): It is not necessary to avoid farm buildings, dairy barns, pastures, feed or forage areas. Use in agricultural areas must be in a manner as to ensure that residues do not exceed the established federal tolerance for the active ingredient in or on raw agricultural commodities resulting from use for wide area pest control. Treat shrubbery and vegetation where mosquitoes may be present. Shrubbery and vegetation around stagnant pools, marshy areas, swamps, residential areas, municipalities, woodlands, pastures, farm buildings and feedlots may be treated.

Ultra Low Volume (ULV) Aerial Application: Apply ½ to 1 fl. oz. of undiluted product per acre (equivalent to 0.05 to 0.1 lb. a.i./acre). Use the 1 fl. oz. rate where heavy vegetation exists; i.e., woodlands, etc.

Dilute Aerial Application: Apply ½ to 1 fl. oz. of undiluted DIBROM Concentrate per acre in a diluted spray solution (equivalent to 0.05 to 0.1 lb. a.i./acre). Use a diluent that is safe for use with the equipment being used and which will not harm the area being treated. Use a diluent that is compatable with Dibrom Concentrate. Test compatability prior to using any diluent.

Ultra Low Volume (ULV) Ground Application: Apply DIBROM Concentrate undiluted at a rate of 1.2 fl. oz. per minute at 10 mph, applying a 300 ft. swath. This flow rate is equivalent to 0.02 lb. active ingredient per acre. In conditions of high pest pressure and/or heavy foliage, a maximum of 0.1 lb. active ingredient per acre may be applied.

Vehicles used to apply DIBROM Concentrate must be kept closed during application (air-conditioned) and equipped with an automatic flow control device. Consult equipment manufacturers for specific recommendations.

Dilute Ground Application: Apply 0.2 fl. oz. of DIBROM Concentrate per acre in a diluted spray solution. Use a diluent that is safe for use with the equipment being used and which will not harm the area being treated. Use a diluent that is compatable with Dibrom Concentrate. Test compatability prior to using any diluent.

Vehicles used to apply DIBROM Concentrate must be kept closed during application (air-conditioned) and equipped with an automatic flow control device. Consult equipment manufacturers for specific recommendations.

HOUSEFLIES, GNATS, CERTAIN OTHER NUISANCE INSECTS AND SUPPRESSION OF BLACKFLIES

Small Flying Moths, Flies (including but not limited to Crane Flies, Adult Stable Flies, Dog Flies, Biting Flies, Filth Flies), Midges in Residential Areas, Municipalities, Tidal Marshes, Swamps, Woodlands, and Agricultural Areas (when applied in wide-area public pest control programs sponsored by governmental entities): It is not necessary to avoid farm buildings, dairy barns, and feed or forage areas. Apply 1 fl. oz. of undiluted DIBROM Concentrate per acre by ground (equivalent to 0.1 lb. a.i./acre).

SUPPRESSION OF DEER FLIES AND OTHER TABINIDS

Deer Flies in Residential Areas, Municipalities, Tidal Marshes, Swamps, Woodlands, and Agricultural Areas (when applied in wide-area public pest control programs sponsored by governmental entities): It is not necessary to avoid farm buildings, dairy barns, and feed or forage areas.

Aerial Application: Apply 1 fl. oz. of undiluted DIBROM Concentrate per acre (equivalent to 0.1 lb. a.i./acre).

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

PESTICIDE STORAGE: Keep pesticides in original container. Do not put concentrate into, or dilute in food or drink containers. For help with any spill, leak or fire involving this material, call day or night 1-800-424-9300 or for help with any exposure involving this material, call day or night 1-888-681-4261.

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 Handling: Returnable Container. Nonrefillable container. Do not reuse or refill this container. This container is a dedicated, single-product returnable container. Return empty container to seller at location designated by seller as a collection point. Do not break seals, add anything to container or open container after use. Do not rinse or contaminate empty container. Do not dispose of un-tampered empty container or use it for any other purposes. Any evidence of broken seals or other tampering or adding anything to the container renders it unfit for return. In such case, it is the obligation of the holder of the container to dispose of it properly or offer for recycling, if available.

It is required that this product be used in a CLOSED SYSTEM. This container may require a tank adapter. For questions regarding tank adapters, call AMVAC Customer Service at 1-888-462-6822 (1-888-GO-AMVAC).

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

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AMVAC Chemical Corporation
4100 E. Washington Blvd.
Los Angeles, CA 90023 U.S.A.
1-888-462-6822

FYFANON® EW INSECTICIDE

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.

Kills mosquitoes
Reduces mosquito populations
May be Applied Undiluted or Diluted with Water
Low odor**

EPA Reg. No. 279-3622 EPA Est. No. 4787-DNK-001

ACTIVE INGREDIENT:	By Wt.
Malathion*:	40.9%
OTHER INGREDIENTS:	59.1%
TOTAL	100.0%

*O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate
Contains 3.67 lbs malathion per gallon

**U.S. Patent No. 6,121,478

KEEP OUT OF REACH OF CHILDREN
CAUTION

IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL TOLL FREE DAY OR NIGHT 1 800-331-3148

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS

Sold By

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Product of Denmark

Net Contents: 2.5 Gallons

7-24-2017

FIRST AID
CONTAINS AN ORGANOPHOSPHATE THAT INHIBITS CHOLINESTERASE

IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison-control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with warm water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • 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 1-800-331-3148 for emergency medical treatment information.

NOTE TO PHYSICIAN: This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION
Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Natural Rubber ≥ 14 mils, Polyethylene, Polyvinyl Chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils.
- Shoes plus socks

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

USER SAFETY RECOMMENDATIONS
User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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 toxic to aquatic organisms, including fish and invertebrates. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply or allow to drift onto blooming crops or weeds while bees are actively foraging in 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 public 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. When applying as a wide area mosquito adulticide, 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 discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Fyfanon EW should be stored in the original unopened container in a secure, dry place. Do not contaminate with other pesticides or fertilizers. Avoid excess heat. Fyfanon EW should never be heated above 55°C (131°F), and should not be stored for long periods of time at a temperature in excess of 25° C (77° F).

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER HANDLING:

Refillable containers:
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 puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Nonrefillable containers (equal to or less than 5 gallons):
Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. 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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Nonrefillable containers (greater than 5 gallons):
Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (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 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

DIRECTIONS FOR USE

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

FYFANON EW INSECTICIDE PRODUCT INFORMATION

Fyfanon EW is a water-based malathion emulsion formulation for outdoor space-spray application to control mosquitoes. It contains proprietary formulation technology designed to reduce the odor of malathion.

Fyfanon EW is to be used for ground applications only and is approved for use in populated and rural areas.

Fyfanon EW may be used undiluted or diluted with water (only) – **it must not be diluted with oil-based solvents or diluents.**

Fyfanon EW is recommended to be part of a rotational program to reduce the occurrence of resistance developing in mosquito control programs – see RESISTANCE MANAGEMENT section below.

RESTRICTIONS

- Do not apply more than 0.23 lb AI/Acre/day.
- Do not re-treat a site more than 3 times in any one week. However, more frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a federal, 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 diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster effort.
- Apply when wind speed is equal to or greater than 1 mph.
- Not for aerial application
- Not for use on crop-land
- This product is for outdoor use only

GENERAL PREPARATION

- Fyfanon EW is only to be applied as an outdoor space-spray for wide-area adult mosquito control.
- Before making the first application in a 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.
- For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning may be recommended depending on target species. Use of technology to improve accuracy of treatments is recommended; this may include GPS mapping, weather monitoring or onboard or land based predictive drift modeling systems.
- Ensure Fyfanon EW (diluted or undiluted) is thoroughly agitated before use. Avoid prolonged storage of diluted product in application equipment.

OPERATING EQUIPMENT PREPARATION

Correct Droplet size: Each cold aerosol generator must be adjusted to produce the correct droplet spectrum for optimal mosquito control. Calibrate spray equipment so that the Volume Median Diameter (VMD) of the aerosol is less than 30 microns (Dv 0.5<30μm) and 90% of the volume is in droplets less than 50μm (Dv 0.9<50μm). Directions from the equipment manufacturer, insecticide vendor or a test facility can be used to establish the correct droplet size spectra.

Maintenance: Equipment manufacturer's recommendations for cleaning and maintenance of the aerosol unit must be followed. The unit must be inspected before use to correct any malfunctions and to verify that the flow rate is correct. For truck mounted sprayers, use the table below to determine the application volumes required at each vehicle speed. Vehicle should not travel greater than 20 mph. Shut off spray equipment when vehicle is stopped.

APPLICATION INSTRUCTIONS

Truck Mounted Sprayer Applications – Non-thermal/cold Aerosol Generator.

Base acreage calculations on manufacturer's directions and recommended swath width.

For control of adult mosquitoes, apply Fyfanon EW at the rate of 0.03 to 0.06 lb ai / A (1.05 to 2.1 fluid ounces Fyfanon EW per acre).

Truck Mounted Application Rates for FYFANON EW INSECTICIDE (300 foot swath)						
lb ai/Acre	Dilution ratio (with water)	Application Rates Fluid Ounces per Minute at Vehicle Speeds				Fl. oz. Finished Spray per Acre
		5 mph	10 mph	15 mph	20 mph	
0.03 – 0.06*	undiluted	3.2 - 6.3	6.3 - 12.6	9.5 - 18.9	12.6 – 25.2	1.05 - 2.1
	1:1	6.3 – 12.6	12.6 – 25.2	18.9 – 37.8	25.2 – 50.4	2.1 – 4.2

*Where dense vegetation or a public health emergency is present, the use of the highest label rate is recommended.

Hand-held Portable or Backpack Application

Apply through non-thermal/cold aerosol application equipment. Target application of Fyfanon EW is 1.05 – 2.1 fl.oz/Acre (0.03 – 0.06 lb ai/Acre). Application calculations assume a 50 foot swath and a walking speed of 2.9 ft/second – at this speed it will take 300 seconds (5 minutes) to walk 870 ft which (by using a 50 ft spray swath) covers one acre.

1 fl.oz/minute output: Sprayer calibrated to deliver 1 fl.oz finished spray per minute (5 fl.oz finished spray delivered per acre): Dilute Fyfanon EW 1 part concentrate + 3.7 parts water to deliver 0.03 lb AI/Acre. Dilute Fyfanon EW 1 part concentrate + 1.4 parts water to deliver 0.06 lb AI/Acre.

2 fl.oz/minute output: Sprayer calibrated to deliver 2 fl.oz finished spray per minute (10 fl.oz finished spray delivered per acre): Dilute Fyfanon EW 1 part concentrate + 8.8 parts water to deliver 0.03 lb AI/Acre. Dilute Fyfanon EW 1 part concentrate + 3.7 parts water to deliver 0.06 lb AI/Acre.

Dilution table for handheld/backpack sprayer for 2.9 ft/second walking speed & 50ft swath				
Finished spray per acre (fl.oz)	0.03 lb AI/Acre		0.06 lb AI/Acre	
	Fl.oz Fyfanon EW for quantity of finished spray required		Fl.oz of Fyfanon EW for quantity of finished spray required	
	For 1 Gallon	For 2 Gallons	For 1 Gallon	For 2 Gallons
5 fl.oz (1fl.oz/minute spray rate)	27 fl.oz	54 fl.oz	54 fl.oz	108 fl.oz
10 fl.oz (2 fl.oz/minute spray rate)	13 fl.oz	27 fl.oz	27 fl.oz	54 fl.oz

RESISTANCE MANAGEMENT

Mosquitoes are known to develop resistance to insecticides following repeated exposure to the same chemical class. However, the incidence, speed and degree of resistance development cannot be predicted because of environmental and biological variation. The use of Fyfanon EW should conform to resistance management strategies if established for your local use area. Consult local or state mosquito management authorities for information.

Optimal mosquito population control is best achieved by having an understanding of local mosquito resistance status to products being applied for their control. Various factors may result in less than acceptable mosquito control including non-optimal application techniques, equipment problems and adverse weather conditions. Once these are determined not to be the cause, mosquito tolerance or resistance may be suspected. Consult your local company representative, pest management advisor or other experts such as CDC to help establish the cause of control problems and to develop a local strategy.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before using this product. If the terms are not acceptable, return the product at once, unopened.

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. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC. All such risks shall be assumed by User, and User agrees to hold FMC harmless for any claims relating to such factors.

FMC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) FMC, and user assumes the risk of any such use.

To the extent permitted by law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE USER, AND THE EXCLUSIVE LIABILITY OF FMC 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 FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

Fyfanon® ULV

Mosquito Insecticide

ULTRA LOW VOLUME CONCENTRATE INSECTICIDE

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.

EPA Reg. No. 279-3539 **EPA Est. 39578-TX-1**

ACTIVE INGREDIENT:	**By Wt.**
Malathion*	96.5%
OTHER INGREDIENTS:	3.5%
TOTAL:	100.0%

* 0,0-dimethyl phosphorodithioate of diethyl mercaptosuccinate.
Contains 9.9 lbs. malathion per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS

IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE, DAY OR NIGHT, 1-800-331-3148

Product of Denmark

Sold By

FMC Corporation
2929 Walnut Street
Philadelphia PA 19104

NET CONTENTS: 5 Gallons

08-20-20

FIRST AID

This product is an organophosphate and is a cholinesterase inhibitor.

IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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.
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.
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 eye. • Call a poison control center or doctor for treatment advice.

HOTLINE 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 1-800-331-3148 for emergency medical treatment information.

NOTE TO PHYSICIAN

This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful by swallowing, inhalation or skin contact. Avoid contact with skin. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, Loaders and Flaggers must wear:
- Long sleeved shirt and long pants;
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl-rubber ≥14 mils, nitrile rubber ≥14 mils, or viton ≥ 14 mils

Aerial applications, pilots must wear:
- Long sleeved shirt and long pants;
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl-rubber ≥14 mLs, nitrile rubber ≥14 mLs, or viton ≥ 14 mLs must be worn when a pilot comes into contact with, adjusts, or makes repairs to contaminated equipment after applications but prior to routine decontamination procedures. Gloves are not required while inside the aircraft.

Ground applications must be made using enclosed cabs only. Drivers must wear:
- Long sleeved shirt and long pants;
- Shoes plus socks

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

User Safety Recommendations

Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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 toxic to aquatic organisms, including fish and invertebrates. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply or allow to drift onto blooming crops or weeds while bees are actively 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 public 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. When applying as a wide area mosquito adulticide, 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 discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Fyfanon® ULV mosquito insecticide should be stored in the original unopened container in a secure, dry place. Do not contaminate with other pesticides or fertilizers. Fyfanon® ULV mosquito insecticide should never be heated above 55°C (131°F), and should not be stored for long periods of time at a temperature in excess of 25°C (77°F).

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER HANDLING:

Containers equal to or less than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. 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 ¼ 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 dispose of empty container in a sanitary landfill or by other procedures approved by state or local authorities.

Containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain fo 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for late use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Offer for recycling if available or dispose of empty container in a sanitary landfill or by other procedures approved by state or local authorities.

Containers greater than 250 gallons: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Return container to point of sale. Empty containers may be returned to FMC by calling customer service at 1-800-311-3148 or disposed of by other procedures approved by state and local authorities.

DIRECTIONS FOR USE

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

MOSQUITO CONTROL IN POPULATED AND RURAL AREAS

PRECAUTIONS AND RESTRICTIONS

Before making the first application in a 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.

RESTRICTIONS

- Do not apply more than 0.23 lb ai /Acre/day.
- Only treat when mosquitoes are swarming or biting. Do not re-treat a site more than 3 times in any one week. However, 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 diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster effort.
- Apply when wind speed is greater than or equal to 1 mph.
- Do not apply by fixed wing aircraft at 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.
- Ground applications must be made using enclosed cabs only.

PRECAUTIONS

- **IMPORTANT:** IN AREAS WHERE AUTOMOBILES, TRAILERS, TRUCKS AND PLEASURE BOATS ARE PRESENT, undiluted spray droplets of Fyfanon® ULV mosquito insecticide will permanently damage vehicle paint finishes unless the aircraft used for the ultra low volume application meets all of the specifications listed under **AERIAL APPLICATION**.

AERIAL APPLICATION

Adult Mosquitoes on Rangeland, Pasture, and Other Uncultivated Non-Agricultural Areas (Wastelands, Roadsides)

Apply 1.0 to 3.0 fluid ounces of Fyfanon® ULV mosquito insecticide per acre (0.08 to 0.23 lbs AI per acre).

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 um). 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. Adult mosquito control over cities, towns, and other areas where automobiles, trailers, trucks, and pleasure boats are present: Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control. See Precautions and Restrictions for additional instructions.

GROUND-BASED APPLICATION

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant or test facility using 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.

Thermal Aerosols or Fogs

For control of adult mosquitoes with thermal aerosols or fogs. Apply Fyfanon® ULV mosquito insecticide at the rate of 3.9 - 5.2 gallons Fyfanon® ULV mosquito insecticide in 100 gallons of finished solution by ground equipment delivering 40 gallons per hour at a vehicle speed of 5 miles per hour to treat a swath width of 300 feet (equivalent to 180 acres per hour). At 3.9 gallons product per 100 gallons of finished solution this is equivalent to 0.08 lbs active/acre. At 5.2 gallons per 100 gallons of finished solution, this is equivalent to 0.11 lbs active/acre.

*There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents. These differences may cause sludge and/or affect the solubility of the Fyfanon® ULV mosquito insecticide.

Nonthermal Aerosols

Adult Mosquito Control - Control of adult mosquitoes over a 300-foot swath can be obtained with nonthermal aerosols of Fyfanon® ULV mosquito insecticide using the following rates at the indicated vehicle speeds:

RATES FOR FYFANON® ULV MOSQUITO INSECTICIDE					
Undiluted Apply as follows:					
Lbs.A.I./Acre/Day	Application Rates Fluid Ounces per Minute at Vehicle Speeds				Fluid Ounces of Fyfanon® ULV mosquito insecticide per acre
	5 mph	10 mph	15 mph	20 mph	
0.03 – 0.06*	1.0 - 2.1	2.0 - 4.3	3.0 - 6.3	4.0 - 8.6	0.38 - 0.75

*Use higher rate of application when vegetation is dense and/or mosquito populations are heavy.

OPERATING EQUIPMENT

Each nonthermal aerosol generator used for dispersal of Fyfanon® ULV mosquito insecticide to control adult mosquitoes must have minimum capability of producing the droplet spectrum described under GROUND-BASED APPLICATION. The initial determination of droplet size is made after the unit is installed in a vehicle and prior to its use in mosquito control operations. Recheck the unit frequently to insure that proper droplet size is maintained for each operation. Determination of droplet size every two months is usually sufficient if the unit has been maintained in good operating condition.

Equipment manufacturer's instructions setting forth cleaning and maintenance of the unit must be followed. The unit must be inspected before each operation to correct any leaks or obstructions in the spray system; to detect whether the nozzle, hoses, or other parts are worn and need replacement; to insure that the flow meter is properly calibrated and to determine that the pressure recommended by the manufacturer is being maintained.

Flow Rate
- Must be regulated by accurate flow meter
- Not greater than 1 gallon per hour at 5 mph; 2 gallons per hour at 10 mph; 3 gallons per hour at 15 mph, or 4 gallons per hour at 20 mph

Nozzle Direction
- Rear of the vehicle
- Upward at an angle of 45° or more

Vehicle Speed
- Not greater than 20 mph
- Shut off spray equipment when vehicle is stopped

IMPORTANT: Spray droplets of undiluted Fyfanon® ULV mosquito insecticide will permanently damage automobile paint unless all the conditions described and recommended in this label are met. If accidental exposure does occur, the vehicle should be washed at once.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before using this product. If the terms are not acceptable, return the product at once, unopened.

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. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC. To the extent consistent with applicable law, all such risks shall be asumed by User, and User agrees to hold FMC harmless for any claims relating to such factors.

FMC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILTY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH REPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) FMC, and user assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER, AND THE EXCLUSIVE LIABILITY OF FMC 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 FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

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NATULAR® DT

Controls larvae of mosquitoes which may transmit Dengue, Chikungunya, or Zika.

To be used in governmental mosquito control programs, by professional pest control applicators, or in other mosquito control operations.

Active Ingredient:	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	7.48%
Other Ingredients	92.52%
Total	100.00%

Contains 0.1 gram Spinosad per extended-release tablet. This product may absorb moisture; therefore, the weight of the tablet and percent by weight of active ingredient will vary with hydration.

U.S. Patent No. 5,362,634 and 5,496,931

Group	5	INSECTICIDE

Keep Out Of Reach Of Children
CAUTION

First Aid	
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. •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 1-800-214-7753 for emergency medical treatment information.	

Precautionary Statements

Hazards to Humans and Domestic Animals

Caution: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Environmental Hazards

This product is toxic to aquatic invertebrates. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Directions For Use

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

Read all Directions for Use carefully before applying.

NATULAR® DT is a Naturalyte® insect product for killing mosquito larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa,* a naturally occurring soil organism.

Product Use Precautions

Integrated Pest Management (IPM) Programs

NATULAR® DT is intended to kill mosquito larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

NATULAR® DT contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticide groups is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Do not use less than the labeled rates.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides with different modes of action.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and /or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

Application Directions

NATULAR® DT is for use in artificial containers used for water collection to control the mosquito larvae of container breeding mosquitoes.

Artificial water containers may include drums, storage tanks, jars, roof top catchments, ornamental fish ponds, ornamental pools or fountains, unused swimming pools, bird baths, old tires, flower pots and urns, water gardens, floor drains, roof gutters and other water-holding receptacles.

Draining or discarding small containers that hold water is the most effective method for preventing mosquito breeding. To treat artificial water containers that cannot be drained or discarded, use 1 tablet to treat up to 192 liters (50 gallons).

Reapply after 60 days as needed.

Restrictions: Do not apply directly to treated, finished drinking water supply systems. Do not apply to waters that drain into public waterways.

Storage and Disposal

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

Pesticide Storage: Store in a cool dry place in original container only.

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

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or dispose of empty container in a sanitary landfill or by incineration.

Warranty: To the extent consistent with applicable law, CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Produced by:
Clarke Mosquito Control Products, Inc.
159 N. Garden Ave
Roselle, IL 60172 USA
1-800-323-5727

EPA Reg. No.: 8329-602
EPA Est. No. Marked on Container
Lot No.: Marked on Container

Net Weight: 7.44 lbs
Net Contents: 2500 Tablets
Tablet Weight: 1.35g

AL0450

SAMPLE LABEL

SPINOSAD	GROUP	5	INSECTICIDE

NATULAR® G

Mosquito Larvicide Granule

Controls larvae of mosquitoes that may transmit West Nile Virus, Eastern Equine Encephalitis, St. Louis Encephalitis, Zika, Dengue, or Chikungunya.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient:	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	0.5%
Other Ingredients	99.5%
Total	100.0%

KEEP OUT OF REACH OF CHILDREN

Precautionary Statements

Environmental Hazards

This product is toxic to aquatic invertebrates. Non-target aquatic invertebrates may be killed in water where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

Directions For Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Product Information

NATULAR® G is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. NATULAR® G may be applied with suitable ground or aerial application equipment.

Use Precautions

Integrated Pest Management (IPM) Programs

NATULAR® G is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

NATULAR® G contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticide groups is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance consult with your local university specialist or Clarke representative
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 20 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they should be observed.

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Apply NATULAR® G prior to flooding as a prehatch application to areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites. The following recommendations are provided for ground and aerial application of NATULAR® G.

Ground Application

Use conventional ground application equipment and apply NATULAR® G at the designated rate for the targeted site.

Spot Treatment

Apply NATULAR® G as a spot treatment to areas where mosquitoes are breeding at rates appropriate for the treatment site habitat and conditions.

Aerial Application

Equipment used in the application of NATULAR® G should be carefully calibrated before use and checked frequently during application to be sure it is working properly and delivering a uniform distribution pattern. Avoid overlaps that will increase NATULAR® G dosage above recommended limits.

Application Sites and Rates

The rates listed are typical for efficaciously killing mosquito and midge larvae in the listed habitat sites. Within this range, use lower rates when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled minimum rate. NATULAR® G may be applied at rates up to 20 lb per acre in waters high in organic content (such as polluted water, sewage lagoons, animal waste lagoons, and waters with high concentrations of leaf litter or other organic debris), deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates. Do not re-apply within 7 days of the initial application unless monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective. Do not apply to water intended for irrigation.

For killing mosquito larvae species in the following non-crop sites:

Non-Crop Site	NATULAR® G lb/acre (lb ai/acre)
Temporary Standing Water: Woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks and other natural or manmade depressions, rock holes, pot holes and similar areas subject to holding water **Other Freshwater Sites:** Natural and manmade aquatic sites, edges of lakes, ponds, canals, stream eddies, creek edges, detention ponds	3.5 - 6.5 (0.018 - 0.033)
Freshwater Swamps and Marshes: Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation **Marine/Coastal Areas:** Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas	9 (0.045)
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, and similar areas **Wastewater:** Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing, and similar areas	6.5 - 9 (0.033 - 0.045)
Dormant Rice Fields: Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle)	3.5 - 6.5 (0.0180 - 0.033)
Natural and Artificial Containers: Tree holes, bromeliads, leaf axils, and other similar natural water holding containers, cemetery urns, bird baths, flower pots, rain barrels, buckets, single tires, tires stockpiled in dumps, landfills, recycling plants and other similar areas, abandoned swimming pools, ornamental ponds, flooded roof tops and similar water holding sites. Landfill containers, salvage yards, abandoned vehicles Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.	3.5 - 9 (0.018 - 0.045) For small to medium size containers, apply 1/8 teaspoon (about 0.37 g) of Natular G per 10-20 gallons of water. For very small containers, apply a pinch of Natular G (0.02 g) per ½ - 1 gallon of water. This is approximately 7 - 9 granules per ½ - 1 gallon of water.

Agricultural/Crop Sites Where Mosquito Breeding Occurs:

Apply NATULAR® G at the rate of 3.5 to 9 lb per acre (0.018 - 0.045 lb ai/acre) in standing water within agricultural/crop sites where mosquito breeding occurs: pastures/hay fields, rangelands, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry place in original container only. Keep away from moisture.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Handling for Non-Refillable Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Warranty

To the extent consistent with applicable law CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Natular® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

IN CASE OF MEDICAL EMERGENCY, CALL THE INTERNATIONAL POISON CONTROL CENTER 1-800-214-7753

Manufactured By:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 North Garden Avenue
Roselle, IL 60172, U.S.A.
1-800-323-5727

EPA Reg. No.: 8329-80

EPA Est. No.: 8329-IL-03

Net Weight: _____

Lot: _____

AL0772

NATULAR® G30 WSP

Mosquito Larvicide /Extended Release Granules in a Water Soluble Pouch.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient (dry weight basis):	
Spinosad (a mixture of spinosyn A and spinosyn D)	2.5 %
Other Ingredients	97.5 %
Total	100.0%

SPINOSAD	GROUP	5	INSECTICIDE

Keep Out of Reach of Children

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

First Aid	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	• Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • 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 1-800-214-7753 for emergency medical treatment information.	

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

DIRECTIONS FOR USE

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

Read all Directions for Use carefully before applying. Pouches are water soluble. Do not handle with wet hands or gloves. Do not remove pouches from the container except for immediate use. Protect unused pouches from moisture by resealing container during storage.

Natular® G30 WSP is a product for use against mosquito and midge larvae in listed breeding habitats. This product's active ingredient, spinosad, is biologically derived from the fermentation of Saccharopolyspora spinosa, a naturally occurring soil organism. Natular® G30 WSP releases effective levels of spinosad for up to 30 days under typical environmental conditions.

USE PRECAUTIONS

Integrated Pest Management (IPM) Programs

Natular® G30 WSP is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

Natular® G30 WSP contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticide groups is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are encouraged:

- Base insecticide use on comprehensive IPM and IRM programs.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- Do not make more than 5 applications per year to permanently flooded breeding habitats.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

APPLICATION

Apply Natular® G30 WSP prior to flooding as a pre-hatch application to listed areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites.

Apply 1 or 2 pouches of Natular® G30 WSP per listed site per 100 sq. ft. (up to 2 feet in depth), or 1 pouch per 750-1500 gallons. For intermittently flooded areas, place pouches in the lowest areas of mosquito breeding sites to maintain continuous kill as the site alternately floods and dries up. Use entire contents of a water soluble pouch; do not break open or use partial contents of a water soluble pouch. Reapply after 30 days. More frequent applications may be made if monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective.

For applications in storm water drainage areas, sewers and catch basins, place 1 or 2 pouches of Natular® G30 WSP into each catch basin. Treat all of the water holding sites in connected water systems to maximize efficiency of the treatment program.

For applications to small contained sites which may not be amenable to a rate of a single pouch per 100 sq. ft., use 1 pouch per contained site (e.g., cesspools and septic tanks, transformer vaults, abandoned pools, and other small artificial water-holding containers).

APPLICATION SITES

Natular® G30 WSP is designed to kill mosquitoes in small bodies of water. Application sites include:

Storm water drainage areas, sewers and catch basins, woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks, rock holes, pot holes and similar areas subject to holding water.

Natural and manmade aquatic sites, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, flooded crypts, transformer vaults, abandoned swimming pools, construction and other natural or manmade depressions.

Stream eddies, creek edges, detention ponds. Freshwater swamps and marshes including mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation. Brackish water swamps and marshes, intertidal areas.

Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing and similar areas.

Also for use in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle) and in standing water within agricultural areas where mosquito breeding occurs: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.

Restriction: Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry place. Reseal opened containers immediately after using. Store in original container only.

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: Nonrefillable container. Do not reuse or refill this container. **Outer Cardboard Container:** Offer for recycling if available or reconditioning if appropriate, or dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities. **Poly-Foil Bag Container:** Offer for recycling if available or dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

WARRANTY: To the extent consistent with applicable law, CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. To the extent consistent with applicable law, Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Natular® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

Manufactured For:
Clarke Mosquito Control Products, Inc.
159 North Garden Avenue
Roselle, IL 60172
1-800-323-5727

EPA Reg. No.: 8329-91 EPA Est. No.:_____

Lot:_____ Net Contents:_____

AL0615

SAMPLE

SPINOSAD	GROUP	5	INSECTICIDE

NATULAR® G30

Mosquito Larvicide / Extended Release Granule

Controls larvae of mosquitoes which may transmit Dengue, Chikungunya, or Zika.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient (dry weight basis):	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	2.5%
Other Ingredients	97.5%
Total	100.0%

U.S. Patent No. 5,362,634 and 5,496,931
Natular® G30 is a 2.5% extended release granule.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals
Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If in eyes:	• Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • 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 1-800-214-7753 for emergency medical treatment information.	

Environmental Hazards
This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Directions For Use

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

Read all Directions for Use carefully before applying.

Product Information
Natular® G30 is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Natular® G30 releases effective levels of spinosad for up to 30 days under typical environmental conditions. Natular® G30 may be applied with ground or aerial equipment.

Use Precautions

Integrated Pest Management (IPM) Programs
Natular® G30 is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)
Natular® G30 contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticides is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or Clarke representative.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 5 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

SAMPLE LABEL

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Apply Natular® G30 prior to flooding as a prehatch application to areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites. Do not allow this product to drift onto neighboring crops or non-crop areas or use in a manner or at a time other than in accordance with label directions.

Ground Application
Use conventional ground application equipment that provides even coverage at labeled rates.

Aerial Application
Fixed wing aircraft or helicopters equipped with granular spreaders capable of applying rates from 5 to 20 lb per acre may be used to apply Natular® G30. Aerial application equipment should be carefully calibrated before use to be sure it is working properly and delivering a uniform distribution pattern. Avoid flight path overlaps while dispensing granules. Do not exceed labeled limits.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making application decisions.

Application Sites and Rates
Apply Natular® G30 at rates (see table) for the targeted treatment site. Within these rate ranges apply at a rate appropriate to site habitat and conditions at the time of application. Use lower labeled rate when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled minimum rate. Within the labeled rate range, use higher rates when water is deep, vegetation and/or pollution are high, and mosquito populations are high in number.

Natular® G30 may be applied at rates up to 20 lb per acre in waters high in organic content, deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates.

Reapply after 30 days, if needed for extended control in continuously flooded habitat. More frequent applications may be made if monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective.

AL0697

Treatment Area	Natular® G30
Temporary Standing Water: Woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks and other natural or manmade depressions, rock holes, pot holes and similar areas subject to holding water. **Other Freshwater Sites:** Natural and manmade aquatic sites; edges of lakes, ponds, canals, stream eddies, creek edges, and detention ponds. **Dormant Rice Fields:** Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle). **Freshwater Swamps and Marshes:** Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation. **Marine/Coastal Areas:** Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas.	Apply 5 to 12 lbs per acre (5.6 to 13.5 kg per hectare). Rate is equivalent to 5 to 12 g per 100 sq. ft. of water.
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, and similar areas. **Wastewater:** Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing, and similar areas.	Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare). Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.
Natural and Artificial Containers: Tree holes, bromeliads, leaf axils, and other similar natural water holding containers; cemetery urns, bird baths, flower pots, rain barrels, buckets, single tires, tires stockpiled in dumps, landfills, recycling plants and other similar areas, abandoned swimming pools, ornamental ponds, flooded roof tops and similar water holding sites; landfill containers, salvage yards, abandoned vehicles. Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.	Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare). Rate is equivalent to 5 to 20 g per 100 sq. ft. of water. For small to medium size containers, apply 0.15 g of Natular G30 per 10-25 gallons of water. For very small containers, apply a pinch of Natular G30 (about 0.02 g) per 5 liters (1.3 gallons) of water. This is approximately 8-10 granules per 5 liters of water.
Agricultural/Crop Sites Where Mosquito Breeding Occurs Apply Natular® G30 to standing water within agricultural/crop sites where mosquito breeding occurs to kill mosquito larvae species, including: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. **Do not apply to waters intended for irrigation.**	Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare). Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool dry place in original container only. Keep away from moisture.

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 for Non-Refillable Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by state and local authorities.

Container Handling for Rigid Refillable Tote: Refillable container. Refill this container with granular spinosad pesticide formulation 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 re-filler. To clean the container before final disposal, empty the remaining contents from this container into application equipment. Use a sprayer with water to quickly and completely rinse the interior of the container. Ensure the top, bottom, and all sides are rinsed. A high pressure sprayer with a rinsing nozzle could provide a thorough rinse of the interior. Drain and collect rinsate from the container into a collection system for later disposal. Drain the container dry so no water remains. Return to point of sale. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

Warranty: To the extent consistent with applicable law, CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Natular® is a Trademark of Clarke Mosquito Control Products, Inc.

Manufactured For:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 North Garden Avenue
Roselle, IL 60172, U.S.A.
1-800-323-5727

EPA Reg. No.: 8329-83
EPA Est. No.: 8329-IL-03
Net Contents: _____
Lot: _____

SAMPLE LABEL

AL0697

Permanone®
30-30

FOR USE ONLY BY FEDERAL, STAT[illegible]
GOVERNMENT OFFICIALS RESPON[illegible]
VECTOR CONTROL, OR BY PERSON[illegible]
APPROPRIATE CATEGORY OR OTH[illegible]
STATE OR TRIBAL LEAD PESTICID[illegible]
PERFORM ADULT MOSQUITO CON[illegible]
PERSONS UNDER THEIR DIRECT [illegible]

- CONTAINS A QUICK KNOCKD[illegible]
  NON-CORROSIVE SYNERGIZ[illegible]
- FOR CONTROL OF ADULT MOS[illegible]
  RECREATIONAL AREAS
- FOR USE AGAINST BITING AN[illegible]
  BLACK FLIES
- CONTAINS 2.5 LBS AI PERME[illegible]
- CONTAINS 2.5 LBS AI PIPERON[illegible]

ACTIVE INGREDIENTS:
Permethrin.....
Piperonyl Butoxide* .....
OTHER INGREDIENTS:†.....

TOTAL:
*(butylcarbityl (6-propylpiperonyl) ether[illegible]
† Contains Petroleum Distillates

EPA REG. NO. 432-1235

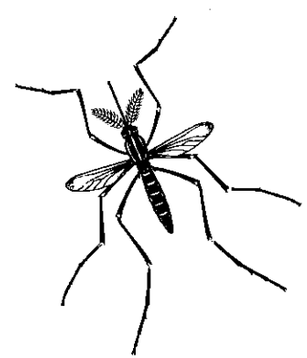
KEEP OUT OF REAC[illegible]
CHILDREN
CAUTION

Si usted no intiende la etiqueta [illegible] alguien para que se la explique [illegible] detalle (If you do not understand [illegible] get someone to explain it to you [illegible]

For MEDICAL and TRANSPORT[illegible]
Emergencies ONLY Call 24 Hour[illegible]
1-800-334-7577
For PRODUCT USE Information [illegible]
1-800-331-2867

Net Contents
275 Gallons
04314564
84105252A 141014AV1

Adult Mosquitoes



FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything to an unconscious person.
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.
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. • Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: May pose an aspiration pneumonia hazard. Contains petroleum distillates.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-800-334-7577.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber greater or equal to 14 mils or neoprene rubber greater or equal to 14 mils. 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-sleeved 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 the concentrate.

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 this product's concentrate. Do not reuse them.

See engineering controls for additional requirements.

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 meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.24(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 extremely 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 aquatic invertebrates.

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if permits or 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 water when disposing of equipment wash waters.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are actively 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. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

(01)40785740194711

Permanone®
30-30

PHYSICAL AND CHEMICAL HAZARDS
Do not use, pour, spill 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 ENTIRE LABEL FOR DIRECTIONS

Applications shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and/or other mosquito control programs.
Do not allow spray treatment to drift on cropland, (other than crops listed) or potable water supplies.
Not for use in outdoor residential misting systems.
Not for use in metered release systems.
FOR USE ONLY BY FEDERAL, STATE, TRIBAL OR LOCAL GOVERNMENT OFFICIALS RESPONSIBLE FOR PUBLIC HEALTH AND 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 APPLICATION, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION.

PRODUCT INFORMATION
PERMANONE® 30-30 is recommended for application as a thermal aerosol and an Ultra Low Volume (U.L.V.) nonthermal aerosol (Cold Fog) to control adult mosquitoes in residential and recreational areas where these insects are a problem; such as but not limited to parks, campsites, woodlands, athletic fields, golf courses, residential areas, municipalities, gardens, playgrounds, recreational areas, and overgrown waste areas. Treat when mosquitoes are most active and weather conditions are conducive to keeping the fog in the air column close to the ground, e.g. cool temperatures and wind speeds are equal to or greater than 1 mph. Application during the cool hours of night or early morning is usually preferable. All types of applications should be conducted at temperatures above 50°F.

APPLICATION INSTRUCTIONS
Apply at a rate not to exceed 0.007 pounds of Permethrin per acre in any given 24 hour period. Do not retreat a site more than once in 3 days. Do not exceed 25 applications at 0.007 pounds of Permethrin per acre (not to exceed a total of 0.18 pounds of Permethrin per acre) in any given season. More frequent applications 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.
PERMANONE 30-30 can be applied to the air column over specific growing crops prior to harvest and range grasses for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can be made where the following crops are present:
Alfalfa, Almonds, Apples, Artichoke, Asparagus, Avocado, Broccoli, Brussel sprouts, Cabbage, Cantaloupe, Cauliflower, Celery, Cherry, Corn (field and pop), Corn (sweet), Eggplant, Filberts (Hazelnuts), Garlic, Horseradish, Lettuce, Onions (dry bulb only), Papayas (FL only), Peaches / Nectarines, Pears, Bell peppers, Pistachios, Potatoes, Soybeans, Spinach, Tomatoes, and Walnuts.
Cucurbit vegetables, including Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of Cucumis melo including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (includes summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of Citrullus lanatus)
Leafy Vegetables, including Leafy vegetables (except brassica) (Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach))

Spray Droplet Size Determination
Apply when wind speed is greater than 1 mph.

Ground Equipment:
Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (D_V 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (D_V 0.9 < 50µm). 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 Application made at ≤ 200 feet above ground elevation:
Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (D_V 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 100 microns (D_V 0.9 < 100 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.

Aerial Application made at >200 feet above ground elevation:
Spray equipment must be adjusted so that the volume median diameter produced is less than 70 microns (D_V 0.5 < 70 µm) and that 90% of the spray is contained in droplets smaller than 145 microns (D_V 0.9 < 145 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.

GROUND APPLICATION
ULV NON-THERMAL AEROSOL (COLD FOG)
To control **Mosquitoes, Midges** and **Blackflies** apply PERMANONE 30-30 using standard U.L.V. ground equipment or portable backpack sprayer. For vehicle-mounted non-thermal ULV equipment, base the acreage calculation on a swath width of 300-ft. If this product is applied undiluted at a flow rate of 1 fluid ounce per minute and a vehicle speed of 10 mph; the rate is equivalent to 0.0035 pounds Permethrin. If a different vehicle speed is used, adjust accordingly (see Dilution Table below). Vary flow rate according to vegetation density and mosquito population. Use the higher flow rate in heavy vegetation or when populations are high. Calibrate equipment to ensure the proper flow rate. PERMANONE 30-30 may also be applied by diluting with a suitable solvent such as mineral oil.
The following table presents sample dilutions and per acre rates for ground ULV applications. If an alternate dilution rate is used, adjust the flow rate accordingly.

DILUTION TABLE*

GROUND ULV (300' swath width)

APPLICATION RATE (LBS PERMETHRIN/A)	VEHICLE SPEED (MPH)	UNDILUTED		DILUTED 1:4		DILUTED 1:8	
		Flow Rate (fl oz/min)	fl oz/A	Flow Rate (fl oz/min)	fl oz/A	Flow Rate (fl oz/min)	fl oz/A
0.0015	5 10 15	0.23 0.47 0.70	0.08	1.15 2.35 3.50	0.39	2.07 4.23 6.30	0.70
0.0035	5 10 15	0.54 1.09 1.63	0.18	2.70 5.45 8.15	0.90	4.86 9.81 14.67	1.62
0.007	5 10 15	1.08 2.18 3.26	0.36	5.40 10.90 16.30	1.80	9.72 19.62 29.34	3.24

* If an alternate dilution rate is used adjust the flow rate accordingly.

AERIAL APPLICATION
PERMANONE 30-30 may be applied either diluted or undiluted at rates of 0.0035 lbs to 0.007 pounds Permethrin-PBO per acre by fixed wing or rotary aircraft capable of making a ULV application. Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet. Apply when ground wind speed is equal to or greater than 1 mph. Applications 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, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. In order to compensate for windy conditions and ensure drift onto the target area aerial application with aircraft equipped with Global Positioning Systems (GPS) is recommended.
IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.

THERMAL AEROSOL FOGGING
TRUCK MOUNTED: Apply PERMANONE 30-30 using thermal fogging equipment. Dilute with a mineral oil (such as BVA13 mineral oil) or another suitable non-phytotoxic, highly refined base oil diluent. Diluents should have a flash point minimum of 168° F, an API gravity minimum of 32 @ 60° F and their density should be from 7.0 to 7.25 lbs/gal @ 60° F. Do not exceed the maximum rate. May be applied at speeds of 5 mph up to 15 mph with variable flow systems. For use with hand carried foggers, apply at rates up to but not exceeding 0.007 pounds permethrin per acre. Do not wet foliage since certain oil base formulations may be phytotoxic. Apply when ground wind speeds are equal to or greater than 1 mph. Use a well-maintained and properly calibrated fogger. Fog downwind.

STORAGE AND DISPOSAL
Do not contaminate water, food, or feed by storage or disposal.
PESTICIDE STORAGE: Store product in its original container in a cool, dry, locked place designated for such insecticides and out of reach of children. Avoid exposure to extreme temperatures. In case of spillage, soak up with absorbent material such as sawdust, or fullers earth, sweep up and place in a labeled container and dispose of as follows:
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

STORAGE AND DISPOSAL *(continued)*
CONTAINER HANDLING:
Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)
Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. 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 mineral oil 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. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.
Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)
Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with mineral oil. 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.
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 mineral oil Agitate vigorously or recirculate mineral oil 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 or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE
Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.
By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.
CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.
DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.
LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Backed by
BAYER

Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

04717774D 141014AV1

Bayer

MGK

Sumilarv 0.5G

PYRIPROXYFEN	GROUP	7C	INSECTICIDE

Specimen Label

- Controlled release insect growth regulator formulation to break mosquito life-cycle
- Prevents adult mosquito emergence (*including those which may transmit West Nile virus*)
- Prevents mosquitoes from becoming breeding, biting adults
- Easy to apply sand granule

ACTIVE INGREDIENTS:

2-[1-Methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine	0.50%
OTHER INGREDIENTS	99.50%
	100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Inside for First Aid and Precautionary Statements

DIRECTIONS FOR USE

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

READ ALL DIRECTIONS COMPLETELY BEFORE USE.

USE RESTRICTIONS:

- Apply this product only as specified the EPA approved label and any supplemental labeling.
- Do not apply more than 0.1 lbs. pyriproxyfen per acre per year or (20 lbs. of Sumilarv® 0.5G/acre/year).
- Do not apply or allow drift onto pastureland or potable water supplies.
- In the treatment of corral lots, feedlots, swine lots and zoos, cover any exposed drinking water, drinking water fountains, and animal feed before application.
- For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

PESTICIDE RESISTANCE MANAGEMENT

For resistance-management, Sumilarv 0.5G contains a Group 7C insecticide. Any insect population may contain individuals naturally resistant to Sumilarv 0.5G and other Group 7C insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of Sumilarv 0.5G or other Group 7C insecticides with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate Sumilarv 0.5G.
- Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance-management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - o The insect resistance-management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, record keeping, and which considers cultural, biological and other chemical control practices.

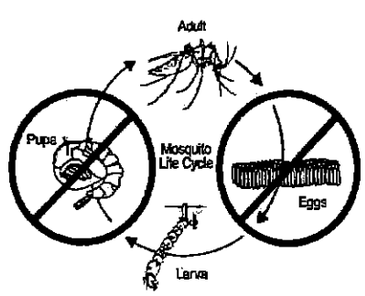
Monitor after application for unexpected target pest survival. The Sumilarv 0.5G only targets juvenile insects. If the level of pest emergence suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

- Contact your local extension specialist for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance contact MGK Company representatives at 1-888-740-8712.

MOSQUITO SPECIES CONTROLLED:

Pyriproxyfen effectively controls several mosquito species which can vector Zika virus, West Nile virus, Yellow Fever, Dengue, Eastern equine encephalitis (EEE), Western equine encephalitis (WEE), and St. Louis encephalitis (SLE), and dog heartworm in the USA. These include:



Aedes aegypti
Ae. albopictus
Ae. vexans
Anopheles quadrimaculatus
Culex pipiens
Cx quinquefasciatus
Cx. tarsalis
Cx. restuans and other Cx. spp.
Ochlerotatus stimulans
Ochlerotatus nigromaculis
Ochlerotatus taeniorhynchus
Ochlerotatus sollicitans
Ochlerotatus triseriatus
Psorophora columbiae

Introduction of Sumilarv 0.5G into larval habitats where mosquitoes breed and develop will prevent adult mosquito emergence and affects reproductive viability of exposed mosquito eggs and adult female mosquitoes. Frequency of application will depend on three factors: dose rate, water quality (e.g. pollution) and dilution caused by rainfall or removal and replenishment of water within the treatment site. Note: presence of actively swimming larvae after a Sumilarv 0.5G treatment is normal. Sumilarv 0.5G does not act until the pupal stage of a mosquito.

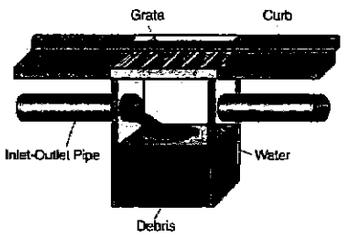
APPLICATION TO CATCH BASINS

Individual catch basins are one of the main breeding sites for mosquitoes that can transmit West Nile virus and cause biting nuisance in urban, suburban and rural environments. Sumilarv 0.5G can be applied to catch basins by dropping them in at the rate specified on this label.

The granules may be applied as a pre-treatment to mosquito breeding catch basins or during the season to catch basins containing mosquito larvae. Once applied, Sumilarv 0.5G will be unaffected by dry, hot, cold or sunny conditions and will begin working when the catch basin is flooded during rain events until the active ingredient degrades below effective levels.

For urban or suburban catch basin applications, Sumilarv 0.5G provides up to 6 weeks of continuous control with one single (75g) treatment. Sumilarv 0.5G's non-flushing sand granule evenly distributes within the catch basin and slowly releases active ingredient to an elution point. During dry periods, Sumilarv 0.5G remains active and will continue to deliver results once water returns to the catch basin. This non-flushing formulation stays in the catch basin while providing slow and consistent release of the AI. Sumilarv 0.5G is a novel mode of action in Vector control and enhances vector control treatment protocols while providing additional resistance management solutions to their integrated mosquito management programs.

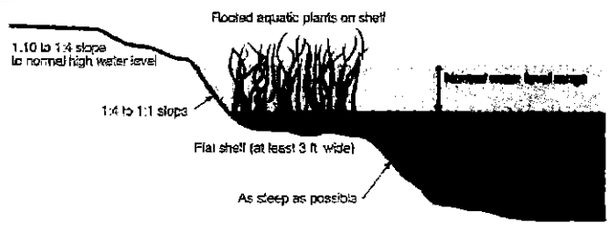
One 75g dose of Sumilarv 0.5G will provide 6 weeks of continual control, even when exposed to significant rain events. Simply scoop and scatter the non-flushing sand granules through the grate of the catch basin.



Dose for Catch Basins
75 grams

APPLICATION TO WATER RETENTION or WATER DETENTION PONDS

Typical Water Retention Pond or Storm Water Detention Pond/Basin



To determine the volume of water in gallons for a specific treatment site, use the following formulation and calculation method:

Total cu. ft. of target treatment site (ft.^{3}) = surface area (ft.^{2}) x average depth (ft.)

Note: 7.5 gallons per cu. ft.

Total water volume = Total cu. ft. of treatment site x 7.5 gallons

Application Rates to Use for the Control of Mosquito Larvae

Treatment site (Volume of Water in Gallons)	Water Depth Less than or Equal to (ft.)	Amount of Sumilarv 0.5G (grams)	Amount of Sumilarv 0.5G wt. ounces (volume equivalent)	Lb. AI Sumilarv /acre based on 1 or 2 basins/acre
0 – 500	1	10	0.35 oz. (1 teaspoon)	0.00011
500 – 1500	2	30	1.05 oz. (1 tablespoon)	0.00033
1500 – 3000	4	60	2.11 oz. (2 tablespoons)	0.00066
3000 – 4500	6	90	3.17 oz. (3 tablespoons)	0.00099
4500 – 6000	8	120	4.23 oz. (4 tablespoons)	0.00132

Treatments should be made every 4-5 weeks for water retention or water detention ponds depending on the volume water or frequency of rain events.

TEMPORARY OR PERMANENT WATER HOLDING SITES:

Ornamental ponds, fountains, cesspools, abandoned swimming pools, gutters, construction site depressions, septic tanks, flooded basements, gutters, animal waste lagoons, livestock runoff lagoons, sewers, waste water impoundments associated with organic pollutants & industrial runoffs, waste settling ponds, tire tracks, landfills, salvage yards, tire dumps, vehicle impounds, junk yards, manmade depressions and vegetation-choked phosphate pits.

NATURAL AND ARTIFICIAL WATER HOLDING CONTAINERS:

Tires, hollow trees and tree holes, potted plants, bird baths, rain barrels, flooded roof tops, flower pots, buckets, and abandoned vehicles.

FIRST AID

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.
- 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. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption. Do not apply to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

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. Store in a cool dry (preferably locked) area that is away from water, other pesticides fertilizers, veterinary supplies, food or feed, in a place that is inaccessible to children and animals.

PESTICIDE DISPOSAL:

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program.

CONTAINER HANDLING:

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of empty container in a sanitary landfill, or by other procedures approved by state and local authorities.

MGK
Sumilarv 0.5G

EPA Reg. No. 1021-2819
EPA Est. No. 1021-MN-2
Rev. 0820-1020

MGK

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7325 Aspen Lane North, Minneapolis, MN 55428

VectoBac® 12AS

BIOLOGICAL LARVICIDE

AQUEOUS SUSPENSION

Active Ingredient:
Bacillus thuringiensis, subsp. *israelensis*, strain
AM 65-52, fermentation solids and solubles 11.61%
Other Ingredients 88.39%
Total 100.00%

Potency: 1200 International Toxic Units (ITU) per mg
(Equivalent to 4.84 billion ITU per gallon, 1.279 billion ITU per liter)

There is no direct relationship between intended activity (potency) and the Percent Active Ingredient by Weight.

EPA Reg. No.73049-38
EPA Est. No. 33762-IA-001 List No. 05605

INDEX:

1.0 First Aid
2.0 Precautionary Statements
2.1 Hazard to Humans (and Domestic Animals)
2.2 Physical and Chemical Hazards
3.0 Directions for Use
3.1 Chemigation
4.0 Storage and Disposal
5.0 Application Directions
6.0 Nuisance Flies
7.0 Nuisance Aquatic Midges
8.0 Ground and Aerial Application
9.0 Small Quantity Dilution Rates
10.0 Chemigation
10.1 Rice-Flood (Basin) Chemigation
11.0 Notice to User

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0 FIRST AID

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 eye. • Call a poison control center or doctor for treatment advice.
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.

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 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash contaminated clothing before reuse.

Mixer/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Physical and Chemical Hazards

Diluted or undiluted VectoBac 12AS can cause corrosion if left in prolonged contact with aluminum spray system components. Rinse spray system with plenty of clean water after use. Care should be taken to prevent contact with aluminum aircraft surfaces, structural components and control systems. In case of contact, rinse thoroughly with plenty of water. Inspect aluminum aircraft components regularly for signs of corrosion.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply directly to finished drinking water reservoirs or drinking water receptacles when water is intended for human consumption.

Do not apply when weather conditions favor drift from treated areas. Do not apply to metallic painted objects, such as automobiles, as spotting may occur. If spray is deposited on metallic painted surfaces, wash immediately with soap and water to avoid spotting.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

3.1 Chemigation

Do not apply this product through any type of irrigation system unless labeling on chemigation is followed.

4.0 STORAGE AND DISPOSAL

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

STORAGE: Store in a cool, [less than 86° F (30° C)], dry place.

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

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse container.

CONTINUED

5.0 APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

Mosquito Habitat	Suggested Rate Range*
(Such as the following examples): Irrigation ditches, roadside ditches, flood water, standing ponds, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields.	0.25 - 2 pts/acres
In addition, standing water containing mosquito larvae, in fields growing crops such as: Alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts, may be treated at the recommended rates.	
When applying this product to standing water containing mosquito larvae in fields growing crops, 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.	
Polluted water (such as sewage lagoons, animal waste lagoons).	1 - 2 pts/acre

*Use higher rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted, and/or algae are abundant.

Blackflies Habitat	Suggested Rate Range
Streams	
Stream water† (=ppm) for 1 minute exposure time	0.5 - 25 mg/liter
Stream water† (=ppm) for 10 minutes exposure time	0.05 - 2.5 mg/liter

†Use higher rate range when stream contains high concentration of organic materials, algae, or dense aquatic vegetation.

†Discharge is a principal factor determining carry of Bti. Use higher rate or increase volume by water dilution in low discharge rivers or streams under low volume (drought) conditions.

6.0 NUISANCE FLIES

For control of nuisance flies (*Psychoda* spp., *Chironomus* spp.) in sewage treatment facilities utilizing trickling filter systems.

APPLICATION DIRECTIONS

Nuisance Fly Habitat	Suggested Rate Range*
Trickling filter system of wastewater treatment plants	10 - 20 mg/liter a.(0.833-1.67 ml) per liter of wastewater feed to the filter per 30 minutes

* Use high rate for control of *Chironomus* spp. Apply undiluted with pre-calibrated pump or other device into the wastewater feeding into the filters for a period of 30 minutes. Repeat applications as needed after 2-4 weeks. Control of *Chironomus* spp. may take up to 2 weeks.

7.0 NUISANCE AQUATIC MIDGES

For control of *Chironomine* midges (*Chironominae: Chironomini*) inhabiting shallow, manmade and natural lakes or ponds.

APPLICATION DIRECTIONS

Nuisance Midge Habitat	Suggested Rate Range*
Shallow Lakes and Ponds per sewage oxidation ponds (less than acre 6 feet deep)	1 gallon (3,785.5 ml) per acre

* Apply diluted with water in total volume of 5 gallons/acre by pouring or spraying over the surface to be treated with pre-calibrated device. Repeat application as needed after 2-4 weeks. Control of *Chironomine* midges may take up to 2 weeks.

8.0 GROUND AND AERIAL APPLICATION

VectoBac 12AS may be applied in conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

For most ground spraying, apply in 5-100 gallons of water per acre using hand-pump, airblast, mist blower, etc., spray equipment.

For aerial application, VectoBac 12AS may be applied either undiluted or diluted with water. For undiluted applications, apply 0.25 to 2.0 pt/acre of VectoBac 12AS through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers.

For diluted application, fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding the VectoBac 12AS. VectoBac 12AS suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.

Rinse and flush spray equipment thoroughly following each use.

For blackfly aerial applications, VectoBac 12AS can be applied undiluted via fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or open pipes. Rate of application will be determined by the stream discharge and the required amount of VectoBac 12AS necessary to maintain a 0.5 - 25 ppm concentration in the stream water. VectoBac 12AS can also be applied diluted with similar spray equipment. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

9.0 SMALL QUANTITY DILUTION RATES

Gallons Spray Solution/Acre
(Ounces Needed per Gallon of Spray)

VectoBac 12AS
Rate in Pints

Per Acre	10 Gal/A	25 Gal/A	50 Gal/A
0.25 (4 oz)	0.4	0.16	0.08
0.5 (8 oz)	0.8	0.32	0.16
1.0 (16 oz)	1.6	0.64	0.32
2.0 (32 oz)	3.2	1.28	0.64

CONTINUED

10.0 CHEMIGATION

Apply this product through flood (basin) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

A person knowledgeable of this 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.

10.1 RICE-FLOOD (BASIN) CHEMIGATION

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

VectoBac 12AS is metered or dripped into rice floodwater at application stations positioned at the point of introduction (levee cut) of water into each rice field or pan. Two to three pints of VectoBac 12AS are diluted in water to a final volume of 5 gallons. The diluted solution is contained in a 5 gallon container and metered or dispersed into the irrigation water using a constant flow device at the rate of 80 ml per minute. Introduction of the solution should begin when 1/3 to 1/2 of the pan or field is covered with floodwater. Delivery of the solution should continue for a period of approximately 4-1/2 hours. Floodwater depth should not exceed 10-12 inches to prevent excessive dilution of VectoBac 12AS which could result in reduced larval kill.

Agitation is not required during the period in which the VectoBac 12AS solution is being dispersed.

Application of VectoBac 12AS into rice floodwater is not permitted using a pressurized water and pesticide injection system.

11.0 NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of Valent BioSciences Corporation.

VALENT BIOSCIENCES.
CORPORATION
870 TECHNOLOGY WAY
LIBERTYVILLE, IL 60048 USA
PH: 800-323-9597

04-6896/R7 ©Valent BioSciences Corporation, January 2012

VectoBac® G

BIOLOGICAL LARVICIDE

GRANULE

ACTIVE INGREDIENT:
Bacillus thuringiensis, subspecies *israelensis*, strain AM 65-52, fermentation solids, spores, and insecticidal toxins 2.80%
OTHER INGREDIENTS 97.20%
TOTAL 100.00%

Potency: 200 International Toxic Units (ITU) per mg
(Equivalent to 0.091 billion potency: ITU per pound)

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No. 73049-10
EPA Est. No. 33762-IA-001 List No. 05108

INDEX:

1.0 First Aid
2.0 Precautionary Statements
 2.1 Hazard to Humans (and Domestic Animals)
 2.2 Environmental Hazards
3.0 Directions for Use
4.0 Application Directions
5.0 Storage and Disposal
6.0 Notice to User

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0

FIRST AID	
If in Eyes	• Hold eyes 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.
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 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

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

4.0 APPLICATION DIRECTIONS

VectoBac G is an insecticide for use against mosquito larvae.

Mosquitoes **Habitat**	**Suggested Range Rate***
(Such as the following examples):	
Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields	2.5 - 10 lbs. / acre

In addition, standing water containing mosquito larvae, in fields growing crops such as alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

* Use 10-20 lbs. / acre when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted (sewage lagoons, animal waste lagoons), and/or algae are abundant.

Apply uniformly by aerial or ground conventional equipment.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

A 7 to 14 day interval between applications should be employed.

5.0 STORAGE AND DISPOSAL

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

Storage: Store in a cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

6.0 NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of Valent BioSciences Corporation.

VALENT BIOSCIENCES CORPORATION
870 TECHNOLOGY WAY
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04-6623/R6 ©Valent BioSciences Corporation, January 2012

VectoBac® WDG

BIOLOGICAL LARVICIDE

WATER DISPERSIBLE GRANULE

FOR ORGANIC PRODUCTION

ACTIVE INGREDIENT:
Bacillus thuringiensis, subsp. *israelensis*, Serotype H-14, strain AM 65-52 fermentation solids and solubles 37.4%
OTHER INGREDIENTS 62.6%
TOTAL 100.0%
[Potency: 3000 International Toxic Units (ITU) per mg]
Equivalent to 1.36 billion ITU/lb.

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No. 73049-56
EPA Est. No. 33762-IA-001 List No. 60215

INDEX:

1.0 First Aid
2.0 Precautionary Statements
2.1 Hazards to Humans and Domestic Animals
2.2 Environmental Hazards
3.0 Directions for Use
4.0 Application Directions
5.0 Small Quantity Dilution Rates
6.0 Ground and Aerial Application
6.1 Aerial Application
7.0 Storage and Disposal
8.0 Notice to User

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0 FIRST AID

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.
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 eye. • 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 1-800-892-0099 (24 hours) for emergency medical treatment and/or transportation emergency information. For all other information, call 1-800-89-VALENT (1-800-898-2536).

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing dust. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with a HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 Environmental Hazards

Do not contaminate water when disposing of equipment washwater or rinsate.

3.0 DIRECTIONS FOR USE

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

Do not apply directly to treated, finished drinking water reservoirs.

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 mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

Do not apply this product through any type of irrigation system.

4.0 APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

VectoBac® WDG Biological Larvicide (hereafter referred to as VectoBac WDG) is an insecticide for use against mosquito larvae.

Mosquito Habitat	Application Rate Range*
Such as the following examples: Irrigation ditches, roadside ditches, flood water, standing pools, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields.	1.75 - 7.0 oz/acre (50 - 200 g/acre) (125 - 500 g/ha)

Direct spray applications to sites where mosquitoes breed. These sites include tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water such as personal rainwater catchment cisterns.

4.0 APPLICATION DIRECTIONS (CONT'D)

Mosquito Habitat	Applications Rate Range*
Polluted water, such as sewage and animal waste lagoons	7.0 - 14.0 oz/acre (200 - 400 g/acre) (0.5 - 1.0 kg/ha)

Standing water, which contains mosquito larvae, in fields with growing crops (e.g., alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts) can be treated at the specified application rates.

* Use higher application rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, and/or algae are abundant.

5.0 SMALL QUANTITY DILUTION RATES

Gallons Spray Mixture/Acre (Ounces Needed per Gallon of Spray)

VectoBac WDG

Rates in		Final concentration, ounces/gallon spray		
Ounces/Acre	Grams/A	10 Gal/A	25 Gal/A	50 Gal/A
1.75	50	0.175	0.07	0.04
3.5	100	0.35	0.14	0.07
7.0	200	0.7	0.28	0.14
14.0	400	1.4	0.565	0.28

6.0 GROUND AND AERIAL APPLICATION

VectoBac WDG may be applied using conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. For application, first add VectoBac WDG to water to produce a final spray mixture.

The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. For application, fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or manual agitation to provide moderate circulation of water before adding VectoBac WDG. Backpack and compressed air sprayers may be agitated by shaking after adding VectoBac WDG to the water in the sprayer. VectoBac WDG suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. Do not mix more VectoBac WDG than can be used in a 48-hour period. AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.

For ground spraying, apply VectoBac WDG at a rate of 1.75 - 14 oz/acre (50 - 400 g/acre; 123 - 988 g/ha) in 5 - 100 gallons of water per acre (47 - 950 liters/ha) using hand-pump, airblast, mist blower, or other spray equipment.

For aerial application, apply VectoBac WDG at a rate of 1.75 - 14 oz/acre (50 - 400 g/acre; 123 - 988 g/ha) in 0.25 - 10 gallons of water per acre (2.4 - 93.5 liters/ha) through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers to provide uniform coverage of the target area.

Rinse and flush spray equipment thoroughly following each use.

6.1 Aerial Application

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions..

7.0 STORAGE AND DISPOSAL

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

Pesticide Storage: Store in cool [59 - 86°F (15 - 30°C)], dry place.

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: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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. Then, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

8.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

VectoBac is a registered trademark of Valent BioSciences Corporation.

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