MasterLine®

By Univar

KONTROL 4 – 4

For Mosquitoes, Flies and Gnats

A Quick Knockdown, Low Odor, Non-Corrosive Synergized Synthetic Pyrethroid for the Control of Adult Mosquitoes in Residential, Recreational, and Other Areas. Also for Use Against Biting and Non-Biting Midge and Black Flies.

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

ACTIVE INGREDIENTS:

Permethrin
(3-phenoxyphenyl)methyl(+/-)Cis/trans
3-(2,2-dichloroethenyl)2,2-Dimethyl
cyclopropanecarboxylate 4.6%

Piperonyl Butoxide Technical
Equivalent to 80% (butylcarbityl)(6-propylpiperonyl)
ether and 20% related compounds 4.6%

INERT INGREDIENTS: 90.8%
Contains a Petroleum Distillate Solvent

TOTAL 100.0%

Contains 0.3344 pounds of Permethrin and 0.3344 pounds of Piperonyl Butoxide per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

"PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente"

FIRST AID	
If swallowed:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
If 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.
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 advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Medical Emergencies, please call SafetyCall® International at 1-866-674-4334. For **spill related issues,** contact Chemtrec at 1-800-424-9300.	
Note to Physician - Contains petroleum distillate - vomiting may cause aspiration pneumonia.	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution: Causes moderate eye irritation. Harmful if swallowed. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the 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 or 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 apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

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.

Note: 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.

BUYER GUARANTEE LIMITED TO LABEL CLAIMS

MasterLine® is a registered trademark of Univar USA.

Manufactured by:
Univar USA Inc.
9430 Research Blvd, Suite 350, Echelon Bldg IV, Austin, TX 78759

EPA Registration No. 73748-4
EPA Establishment No. 53883-TX-002
39578-TX-001

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: Nonrefillable Container: Metal or Plastic Container. Do not reuse or refill container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities, such as burning of plastic containers. If burned, stay out of smoke. Triple rinse as follows:

Containers 5 gallons or less: Empty the remaining contents into application equipment 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 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, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Containers larger than 5 gallons: Empty the remaining contents into application equipment. Fill the container 1/4 full with mineral oil. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip 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. Once cleaned, offer for recycling or reconditioning if appropriate.

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. Return container to point of purchase for reuse with seal intact and in salable condition. Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with mineral oil. Agitate vigorously or recirculate mineral oil with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times

BULK STORAGE AND DISPOSAL

AGITATE BEFORE USE

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

Storage: Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal: Pesticide spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal and local procedures under Subtitle C of the Resource Conservation and Recovery Act.

CONDITIONS AND RATES TO USE FOR MOSQUITO CONTROL

KONTROL 4 - 4 may be applied either diluted or undiluted as a thermal or non-thermal fog. Applicators should wear long sleeved shirt, long pants, shoes and socks.

KONTROL 4 - 4 is recommended for application in ultra low volume (ULV) non-thermal aerosol (cold fog) to control adult mosquitoes, flies and gnats 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. For best results, treat when insects are most active and conditions are conducive to keeping the fog close to the ground.

Both ground and aerial applications should be made when meteorological conditions are conducive to keeping the spray cloud close to the ground, such as when an air temperature inversion is present. Applications during the cool hours of early morning or evening are preferable. Air temperatures should be greater than 50° F when conducting all types of applications. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than 1 mph. Do not apply when wind speeds exceed 10 mph. Applications cannot exceed the recommended rates.

Do not re-treat a site more than once in 12 hours. Do not apply more than 0.18 lbs. of permethrin per acre per year to any site. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

KONTROL 4 - 4 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:

Alfalfa
Almonds
Apples
Artichoke, globe
Asparagus
Avocado
Broccoli
Brussels Sprouts
Cabbage
Cauliflower
Celery
Cherries
Corn, fodder
Corn, forage
Corn, grain (field and pop)
Corn, stover
Corn, sweet kernel plus cob with husks removed
Eggplant
Filbert
Garlic
Range Grasses

(continued)

Horseradish
Leafy Vegetables (except Brassica)
Lettuce, head
Mushrooms
Onion, dry bulb
Peaches
Pears
Pepper, bell
Pistachio
Potato
Soybeans
Spinach
Tomatoes
Vegetable, cucurbits
Walnuts

In the treatment of corrals, feedlots, animal confinements/houses, swine lots, poultry ranges and zoos, cover any exposed drinking water, drinking fountains and animal feed before application. Do not contaminate non-approved sites with spray drift.

GROUND APPLICATION INSTRUCTIONS (Thermal and Non-Thermal Application)

DROPLET SIZE CALIBRATION FOR GROUND APPLICATION EQUIPMENT: Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 48 microns (Dv 0.9 < 48 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.

THERMAL AEROSOL FOGGING

TRUCK MOUNTED: Apply diluted or undiluted with suitable Thermal Fogging equipment. Do not exceed the maximum a.i./acre rates. May be applied at speeds of 5 to 20 mph, treating a 300 ft. swath. To reduce oil requirement and sludge buildup in equipment, use a suitable mineral oil of 60 - 100 second viscosity. For use with hand foggers, use the same a.i./acre rates and a swath width of 50 ft with a walking speed of 2 mph. Do not wet foliage since the oil base formulation may be phytotoxic. Do not fog when wind conditions exceed 10 miles per hour. Use well maintained and properly calibrated fogger.

Suggested Dilution Rates to Achieve 0.00175# a.i. per Acre

MACHINE OUTPUT GAL/HOUR	DILUTION RATIO WITH FOG OIL 5 MPH	DILUTION RATIO WITH FOG OIL 10 MPH
10 gal/hr	1 : 9.5	1 : 4.25
20 gal/hr	1 : 20	1 : 9.5
30 gal/hr	1 : 30	1 : 14.75

HAND HELD THERMAL FOGGERS 50 FT SWATH AT 2 MPH 0.00318# A.I. PER ACRE

MACHINE OUTPUT	DILUTION RATE
0.25 gal/hr	1 : 1.2
2.0 gal/hr	1 : 16.4
5.0 gal/hr	1 : 42.4
8.0 gal/hr	1 : 68.4

NON-THERMAL AEROSOL (COLD FOG)

KONTROL 4 - 4 ULV Non-Thermal Aerosol (cold fog) Application: To control mosquitoes, midges and blackflies, apply **KONTROL 4 - 4** using any standard ULV ground applicator capable of producing a non-thermal aerosol spray. Apply the product at a flow rate of 4.1 to 16.2 ounces per minute at an average vehicle speed of 10 mph. If different vehicle speed is used, adjust the rate accordingly. These rates are equivalent to 0.00175 to 0.007 pounds of permethrin and the same amount of 0.00175 to 0.007 pounds of synergist piperonyl butoxide per acre. Vary flow rates accordingly to vegetation density and mosquito population. Use higher flow rates in heavy vegetation or when populations are high. An accurate flow control system must be used to ensure proper flow rate. **KONTROL 4 - 4** may also be applied by diluting with a suitable solvent such as mineral oil and applying so as not to exceed the maximum pounds of active ingredient per acre as shown in the first column of the ULV table shown below. That table represents some suggested application rates for ground ULV applications. If an alternative dilution rate is used, adjust the flow rate accordingly.

Conditions and Rates to use KONTROL 4 - 4 Undiluted for Mosquito Control

Permethrin/PBO Lbs. A.I./Acre	Application Rates/Fluid Ounces To Use Per Minute			
	5 mph	10 mph	15 mph	20 mph
0.007/0.007	8.1	16.2	24.4	32.5
0.0035/0.0035	4.0	8.1	12.2	16.2
0.00175/0.00175	2.0	4.1	6.1	8.2

AS A BARRIER SPRAY USING A MISTER TYPE UNIT

For use in non-thermal equipment, apply **KONTROL 4 - 4** with a mist blower adjusted to deliver droplets with a volume median diameter of 50 - 120µm. Use undiluted or diluted to achieve an application of 0.00175 / 0.00175 # a.i./acre. Use a 50 ft (15.2m) swath while walking at a speed of 2 mph (3.2 kph). If using a different speed, swath or dilution, do not exceed the maximum a.i./acre. When this product is applied as a barrier treatment, do not apply within 100 feet (30 meters) of lakes and streams.

AERIAL APPLICATION INSTRUCTIONS

The use of aircraft specially equipped and capable of applying ULTRA LOW VOLUMES of **KONTROL 4-4** may be necessary.

DROPLET SIZE CALIBRATION FOR AERIAL APPLICATION EQUIPMENT: 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 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 shall be made at altitudes ranging from 75 to 300 feet. Fixed wing aircraft with flat fan or rotary nozzles, or rotary wing aircraft equipped with rotary nozzles, apply at a sufficient airspeed to deliver the appropriate amount of a.i./acre (from 0.00175 to 0.007 # a.i./acre) and to achieve the appropriate droplet range. Apply only when ground wind speed is greater than 1 mph.

PROHIBITION FOR AERIAL USE: Not for aerial application in Florida unless specifically authorized by the Bureau of Entomology and Pest Control, Florida Department of Agriculture and Consumer Services.

NOTICE: Buyer and user assume all risks and liability of use, storage and/or handling of this product not in accordance with the terms of this label.

SPECIMEN