



# PERM-X UL 31-66

For Application Only by Public Health Officials and Trained Personnel of Mosquito Abatement Districts and Other Mosquito Control Programs. An All Temperature, Quick Knockdown, Low Odor, Non-Corrosive Synergized Synthetic Pyrethroid for use in the control of Adult Mosquitoes, Biting and Non-Biting Midges and Black Flies in Residential, Recreational, and Non-Crop Waste Areas.

## FOR CONTROL OF ADULT MOSQUITOES

### ACTIVE INGREDIENTS:

Permethrin: CAS [52645-53-1] .....	31.0%
Piperonyl Butoxide: CAS [51-03-6] .....	66.0%

<b>OTHER INGREDIENTS*:</b> .....	3.0%
<b>TOTAL:</b>	100.0%

\*Contains Mineral Oil

Contains 2.8025 lbs. A.I. Permethrin per gallon and 5.9668 lbs. Piperonyl Butoxide per gallon.

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## KEEP OUT OF REACH OF CHILDREN CAUTION

- **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 in eyes** – Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a Poison Control center or doctor for treatment advice.
- **If on skin** – 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.

See below for additional Precautionary Statements

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye damage injury. Harmful if swallowed or absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating or smoking. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove contaminated clothing and wash before reuse.

#### ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift and runoff from treated areas. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

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

EPA Reg. No. 655-812

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EPA Est. No. 655-GA-1

Net Contents \_\_\_\_\_

Manufactured by:

# PRENTISS INCORPORATED

Plant: Kaolin Road, Sandersville, GA 31082  
Office: C.B. 2000, Floral Park, NY 11002-2000

## DIRECTIONS FOR USE

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

Do not allow spray treatment to drift to pastureland, cropland, poultry ranges or water supplies.

### HOW TO APPLY

For proper ground application mount the fog applicator so that the nozzle is at least 4 ½ feet above ground level and directed out the back of the vehicle. May be applied at speeds of 5 m.p.h. Failure to follow these label directions may result in reduced effectiveness. For "Aerial Application" refer to the Aerial Application section on this label. PERM-X UL 31-66 may be used as is or diluted with a suitable solvent, i.e. a 60 to 100 Second viscosity mineral oil and applied at a rate not to exceed 0.8448 fl. oz. Per acre. Both aerial and ground applications should be made when the wind is less than 10 M.P.H. For exact rates, see the "Undiluted" or the "Dilution" rates charts on this label. PERM-X UL 31-66 is recommended for application as an Ultra Low Volume (U.L.V.) Thermal or Non-Thermal aerosol (cold fog) to control adult mosquitoes and other insects as listed on this label, in residential and recreational areas where these insect pests become a problem; such as, but not limited to, parks, campsites, woodlands, athletic fields, golf courses, residential areas, municipalities, gardens, playgrounds, and non-crop waste areas. Do not apply this product within 100 feet (30 Meters) of lakes and streams. **FOR BEST RESULTS,** treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the fog close to the ground, e.g. cool temperatures and wind speeds not greater than 10 m.p.h. Applications during the cool hours of night or early morning are usually preferable. Repeat treatment when recommended by Public Health officials, or mosquito Abatement Districts.

### THERMAL AEROSOL FOGGING

Refer to the DILUTION RATES tables for fogging applications. Droplet size of thermal "fog" will be very small, usually in the 0.5 to 1.0 micron range. TRUCK MOUNTED – Apply PERM-X UL 31-66 DILUTED OR UNDILUTED WITH SUITABLE Thermal Fogging equipment. If diluted, use a 50 to 100 second viscosity mineral oil, or another suitable non-phytotoxic diluent to reduce oil requirement and sludge buildup in equipment. Do not exceed the maximum 0.0185 lb. a.i. Permethrin per acre rate. May be applied at speeds of 5 m.p.h. up to 20 m.p.h. For use with Hand Carried and/or Lawn Mower Foggers, use the same rates of A.I. per acre with a 50 foot swath width at a walking speed of 2 m.p.h. Do not wet plant foliage. Do not fog when wind conditions exceed 10 miles per hour. Only use clean, well maintained, and properly calibrated equipment, known to give excellent performance. Fog down wind. Apply PERM-X UL 31-66 at 0.00175 lb. to 0.0186 lb. of a.i. Permethrin and 0.0038 to 0.0394 a.i. Piperonyl Butoxide per acre.

### USE AS AN INSECT BARRIER

#### AS AN INSECT BARRIER – USE A "BACKPACK" FOG-TYPE-MIST BLOWER

For use in Non-Thermal ULV motorized, portable, Backpack, Fog type Mist Blower equipment apply PERM-X UL 31-66 with equipment adjusted to deliver ULV particles of 50 to 100 mass median diameter. PERM-X UL 31-66 MAY BE APPLIED UNDILUTED OR DILUTED (SEE Application Rates tables section). If diluted, use a 30 to 100 second mineral oil, or another, (if recommended by Public

Health Officials), suitable non-phytotoxic diluent. Use 0.00175 to 0.0185 pound Permethrin A.I. and 0.0038 to 0.0394 lb. of Piperonyl Butoxide per acre at a 50 ft. (15.2 m) swath width, while walking at a speed of 2 m.p.h. (3.2 k.p.h.). Whether applied undiluted or diluted, or at a different speed, make sure that the same amounts of Permethrin a.i. and Piperonyl Butoxide a.i. are applied per acre.

### DIRECTIONS FOR AERIAL APPLICATION

Aerial applications should be done by suitable aerial U.L.V. equipment capable of producing droplets with an MMD of 50 microns or less with no more than 2.5% exceeding 100 microns at an altitude of 300 feet and a forward speed of 150 m.p.h., achieving an effective swath width of 500 feet. Flow rate should be set at 128 ounces per minute; equal to 0.8448 ounce of PERM-X UL 31-66 per acre. Flow rate and swath width should be set so as to achieve 0.0799 to 0.8448 fluid ounce of PERM-X UL 31-66 per acre. The use of specially designed aircraft capable of applying ULTRA LOW VOLUMES of PERM-X UL 31-66 at the Dilution Table rates may be considered necessary when conducted at the discretion of Public Health Officials, Mosquito Abatement Districts, and other trained personnel engaged in outdoor Mosquito and Biting Fly control programs when these insects threaten to become a public health hazard. **PROHIBITION OF AERIAL USE IN FLORIDA:** Not for aerial application in Florida UNLESS specifically authorized by the Bureau of Entomology, Florida Department of Agriculture and Consumer Services.

### ULV NON-THERMAL AEROSOL (COLD FOG)

PERM-X UL 31-66 is recommended for application as an 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. Do not apply within 100 feet (30 meters) of fish bearing waters. For best results, treat when insects are most active and conditions are conducive to keeping the fog close to the ground. Repeat treatment when recommended by Public Health Officials or Mosquito Abatement Districts. To control Mosquitoes, Midges and Blackflies, apply PERM-X UL 31-66 any standard U.L.V. ground applicator capable of producing a non-thermal aerosol fog with droplets ranging in size from 3 to 30 microns in diameter and a mass median diameter (MMD) of 15 to 20 microns. The largest droplets should not exceed 50 microns and less than 5% of drops should be below 5 microns. Silicon slides should be required for calibration with an application swath width of 300 feet. When applying this product undiluted, apply at a flow rate of 0.04794 to 5.0688 ounce per minute at an average vehicle speed of 10 m.p.h. These rates are equivalent to 0.00175 to 0.0185 pound of Permethrin a.i. and 0.00380 to 0.03940 pound of Piperonyl Butoxide a.i. per acre. If a different vehicle speed is used, adjust the rate accordingly. Vary flow rates accordingly to vegetation density and mosquito population. Use higher flow rates in heavy vegetation or when insect populations are high. An accurate flow rate control system must be used to ensure proper flow rate. PERM-X UL 31-66 may also be applied by diluting with a 60 to 100 second viscosity mineral oil or another suitable solvent, applied so as not to exceed the maximum a.i. rates per acre as shown below. If an alternate dilution is required, adjust the flow rate accordingly, provided droplet size and spectrum remain within label specifications. Do not exceed a flow rate of 20 oz. per minute unless recommended by equipment manufacturers and/or Public Health Officials that recommend a dilution of 1 to 6 and high vehicle speeds of 15 to 20 m.p.h. in emergency conditions utilizing fogging equipment that is capable of the higher flow rates per minute.

<b>Conditions And Rates To Use Perm-X UL 31-66 Undiluted</b>						
Pounds A.I. Per Acre		Application Rates				Fl. Oz. of Perm-X UL 31-66 Per Acre
		Fl. Oz. Per Minute At M.P.H.				
Permethrin	PBO	5 MPH	10 MPH	15 MPH	20 MPH	
0.01850	0.03940	2.5344	5.0688	7.8032	10.1376	0.8448
0.00700	0.01490	0.9591	1.9162	2.8773	3.8364	0.3197
0.00350	0.00750	0.4797	0.9594	1.4391	1.9188	0.1599
0.00175	0.00380	0.2397	0.4794	0.7191	0.9588	0.0799
<b>Dilution Rates for Perm-X UL 31-66</b>						
<b>For A 1:4 Dilution</b>						
Mix 1 Part Perm-X UL 31-66 With 4 Parts Suitable Mineral Oil: Apply As Follows:						
Pounds A.I. Per Acre		Application Rates				Fl. Oz. of Perm-X UL 31-66 Per Acre
		Fl. Oz. Per Minute At M.P.H.				
Permethrin	PBO	5 MPH	10 MPH	15 MPH	20 MPH	
0.00700	0.01490	4.4727	9.5454	14.3181	19.0908	1.5909
0.00350	0.00750	2.3865	4.7730	7.1595	9.5460	0.7955
0.00175	0.00380	1.1934	2.3868	3.5803	4.7736	0.3978
<b>For A 1:8 Dilution</b>						
Mix 1 Part Perm-X UL 31-66 With 8 Parts Suitable Mineral Oil: Apply As Follows:						
Pounds A.I. Per Acre		Application Rates				Fl. Oz. of Perm-X UL 31-66 Per Acre
		Fl. Oz. Per Minute At M.P.H.				
Permethrin	PBO	5 MPH	10 MPH	15 MPH	20 MPH	
0.00700	0.01490	8.4000	16.8000	25.2000	33.6000	2.8000
0.00350	0.00750	4.2000	8.4000	12.6000	16.8000	1.4000
0.00175	0.00380	2.1000	4.2000	6.3000	8.4000	0.7000
<b>For A 1:2 Dilution</b>						
Mix 1 Part Perm-X UL 31-66 With 2 Parts Suitable Mineral Oil: Apply As Follows:						
Pounds A.I. Per Acre		Application Rates				Fl. Oz. of Perm-X UL 31-66 Per Acre
		Fl. Oz. Per Minute At M.P.H.				
Permethrin	PBO	5 MPH	10 MPH	15 MPH	20 MPH	
0.00700	0.01490	2.8767	5.7534	8.6301	11.5068	0.9589
0.00350	0.00750	1.4385	2.8770	4.3155	5.7540	0.4795
0.00175	0.00380	0.7194	1.4388	2.1582	2.8776	0.2398

## STORAGE AND DISPOSAL

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

**STORAGE AND SPILL PROCEDURES:** Store upright at room temperatures. Do not expose to extreme temperatures. In case of spill or leakage, ventilate the area, wear chemical resistant gloves, and footwear. Retrieve and filter the liquid in some manner and use as directed on this label, or "soak-up" the liquid with absorbent material such as sawdust, soil, fuller's earth, or etc. Dispose of the resulting chemical waste as follows.

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

**CONTAINER DISPOSAL:** Metal Containers – Triple rinse or equivalent. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic Containers – Triple rinse or equivalent. Then offer for recycling or reconditioning, 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.