

655-813

2/7/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460-0001



OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 7, 2012

Sharon M. Johnston, Esq.  
RegGuide  
509 Tower Valley Drive  
Hillsboro, MO 63050

Subject: Amended Reregistration Label  
Product Name: Prentox Perm-X UL 2-2  
EPA Registration Number: 655-813  
EPA Decision Numbers: 411084, 413346

Dear Ms. Johnston:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the reregistration of the above referenced product in connection with the Permethrin and Piperonyl Butoxide RED(s), and has concluded that your submission is acceptable.

NOTE: This product is not being reregistered under sections 3(c)5 and 4(g) of FIFRA at this time.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on non-refillable containers. The code may appear either on the label or durably marked on the container itself, and can be added by non-notification per PRN 98-10.

Please note that the record for this product currently contains the Confidential Statements of Formulation (CSFs) listed below. Any previously dated CSFs are superseded.

- Basic CSF, dated 06-30-2010
- Alternate CSF #1, dated 06-30-2010
- Alternate CSF #2, dated 06-30-2010
- Alternate CSF #3, dated 06-30-2010




A copy of your label stamped "Accepted" is enclosed along with copies of the acute toxicity and product chemistry reviews completed for the subject product. Products shipped after 12 months from the date of this amendment or the next printing of the label whichever occurs first, must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e).

If you have any questions about this letter, please contact Julie Chao at (703) 308-8735 or [chao.julie@epa.gov](mailto:chao.julie@epa.gov).

Sincerely,



 Richard J. Gebken  
Product Manager (10)  
Insecticide Branch  
Registration Division (7504P)

*Enclosures: Label stamped "Accepted," dated February 7, 2012  
Acute Toxicity Review, dated September 13, 2010  
Product Chemistry Reviews, dated February 10 and April 13, 2011*



30 of 7



# PERM-X™ UL 2-2

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

A Quick Knockdown, Low Odor, Non-Corrosive Synergized Synthetic Pyrethroid for the control of Adult Mosquitoes, In Residential and Recreational areas. Also for use against Biting and Non-Biting Midges, and Black flies.

## ACTIVE INGREDIENTS:

Permethrin .....	2.0%
Piperonyl Butoxide .....	2.0%
OTHER INGREDIENTS* .....	96.0%
TOTAL .....	100.0%

\*Contains Petroleum Distillate  
Contains 0.144 lb. A.I. Permethrin and 0.144 lb. A.I. Piperonyl Butoxide per gallon.

PRENTOX® - Registered Trademark of Prentiss Incorporated  
PERM-X™ - Trademark of Prentiss Incorporated

ACCEPTED

FEB 07 2012

Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended, for the  
pesticide registered under:

EPA. Reg. No: 655-813

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	<ul style="list-style-type: none"> <li>• Immediately call a Poison Control Center or physician for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by the Poison Control Center or physician.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious or convulsing person.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a Poison Control Center or physician for treatment advice.</li> </ul>
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a Poison Control Center or physician for treatment advice.</li> </ul>
If inhaled	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a Poison Control Center or physician for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-222-1222 for emergency medical treatment information. You may also contact the National Pesticide Telecommunication Network at 1-800-858-7378 for information including health concerns, medical emergencies or pesticide incidents.	
NOTE TO PHYSICIAN: Contains Petroleum Distillates - Vomiting may cause aspiration hazard.	
SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS	

EPA Reg. NO. 655-813

EPA Est. NO.

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

Lot No. \_\_\_\_\_

Manufactured by:

PRENTISS LLC  
501 Cascade Pointe Lane, Suite 103  
Cary, NC 27513



## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Harmful if absorbed through the skin. Avoid contact with eyes, skin or clothing. Causes moderate eye irritation. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

### Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. Mixers, loaders, applicators and other handlers (including during mixing/loading, repair and cleaning of equipment and disposal of pesticide) must wear the following:

- Long-sleeved shirt and long pants
- Shoes plus socks,
- Chemical-resistant gloves such as barrier laminate, viton, neoprene rubber or nitrile rubber,
- Chemical-resistant apron for mixers/loaders, persons cleaning equipment and persons exposed to the concentrate.

In addition to the above PPE, mixers and loaders supporting aerial applications to forests must wear at least a NIOSH-approved respirator with:

- A dust/mist filter with MSHA/NIOSH approval number prefix TC-21C, or any R, P, or HE filter.

See engineering controls for additional requirements.

### User Safety Requirements:

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, 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-

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

### 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 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 it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

## PHYSICAL OR 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.

### Precautions and Use Restrictions-

- Apply this product only as specified on this label.
- For use only by federal, state, tribal or local government officials responsible for public health or vector control or by persons certified by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications or by person under their direct supervision.
- Apply this product at temperatures greater than 50°F and when wind speed equals or exceeds 1 mph.
- Not for use in metered release systems.
- Not for use in outdoor residential misting systems.
- Do not make applications during rain.
- Do not spray this product on or allow it to drift onto cropland or potable water supplies.
- 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.
- For hand carried and/or lawn mower foggers: Do not fog wet foliage. Do not fog when wind conditions exceed 5 mph. Only use a clean, well maintained and properly calibrated fogger, known to give excellent performance. Fog down wind.
- Do not re-treat a site more than once in 3 days.
- 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.

### Conditions and Rates to Use for Mosquito Control

Do not exceed 25 applications at 0.007 lbs permethrin per acre per application or 0.007 lbs piperonyl butoxide per acre per application, or 0.18 lbs of permethrin per acre per season or 0.18 lbs piperonyl butoxide per acre per year. 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.

**Perm-X UL 2-2** is approved for application as an ultra low volume (ULV) non-thermal aerosol (cold fog) for control of adult mosquitoes, midges, and black flies in residential and recreational areas where these insect pests are a problem, such as parks, campsites, woodlands, athletic fields, golf courses, residential areas, municipalities, gardens, playgrounds, recreational areas and overgrown waste areas. 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 air temperature inversion is present. Applications during the cool hours of early morning or evening are preferable.

### SPRAY DROPLET SIZE DETERMINATION

**Ground-based Application:** Spray equipment must be adjusted so that the volume median diameter is less than 30 microns ( $D_v 0.5 < 30 \mu m$ ) and that 90% of the spray is contained in droplets smaller than 50 microns ( $D_v 0.9 < 50 \mu m$ ). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using laser based equipment to produce acceptable droplet 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  $\leq 200$  feet above ground elevation:** Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns ( $D_v 0.5 < 60 \mu m$ ) and that 90% of the spray is contained in droplets smaller than 100 microns ( $D_v 0.9 < 100 \mu m$ ). 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 ( $D_v 0.5 < 70 \mu m$ ) and that 90% of the spray is contained in droplets smaller than 145 microns ( $D_v 0.9 < 145 \mu m$ ). 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.

### Conditions and Rates to Use Perm-X UL 2-2 Undiluted for Mosquito Control

Permethrin/PBO Lbs. A.I./Acre	Application Rates/Fluid Ounces To Use Per Minute				Fl. Oz. Perm-X UL 2-2 per Acre
	5 mph	10 mph	15 mph	20 mph	
0.007/0.007	18.8	Not Recommended	Not Recommended	Not Recommended	6.2
0.0035/0.0035	9.4	18.8	Not Recommended	Not Recommended	3.1
0.00175/0.00175	4.7	9.4	14.1	18.9	1.6



## GROUND BASED APPLICATIONS

**ULV Non-Thermal Aerosol (Cold Fog) Application:** To control mosquitoes, midges and black flies, apply Perm-X UL 2-2 using truck mounted ground ULV (cold fog) equipment with a swath width of 300 feet. Apply the product undiluted at flow rates of 4.7 to 18.8 fluid oz. per minute at a truck speed of 5 mph. If a different vehicle speed is used, adjust the flow rate accordingly. An accurate flow control system must be used to ensure proper flow rate. Use of the maximum flow rates and application rates listed on this label is recommended to treat heavy vegetation or when target insect populations are high. Do not exceed 20 fl. oz./minute. This product may be applied at truck speeds of 5 to 20 mph.

### Thermal Aerosol Fogging:

**Truck Mounted-** Apply 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. To reduce oil requirement and sludge buildup in equipment, use 100-second viscosity mineral "fog" oil. For use with hand foggers, use the same a.i./acre rates.

#### Recommended Dilution Rates to achieve 0.00175/0.00175 Lbs. A.I./Acre

Machine Output	Dilution Ratio 5 mph	Dilution Ratio 10 mph	Dilution Ratio 15 mph	Dilution Ratio 20 mph
10 gal/hr	1:3.5	1:1.3	1:0.5	1:0.1
20 gal/hr	1:8	1:3.5	1:2	1:1.3
30 gal/hr	1:12.6	1:5.8	1:3.5	1:2.4

#### Recommended Dilution Rates to Achieve 0.0035/0.0035 Lbs. A.I./Acre

Machine Output	Dilution Ratio 5 mph	Dilution Ratio 10 mph	Dilution Ratio 15 mph	Dilution Ratio 20 mph
10 gal/hr	1:1.3	1:0.2	Not Recommended	Not Recommended
20 gal/hr	1:3.7	1:1.3	1:0.6	1:0.2
30 gal/hr	1:6	1:2.5	1:1.3	1:0.8

#### Recommended Dilution Rates to Achieve 0.007/0.007 Lbs. A.I./Acre

Machine Output	Dilution Ratio 5 mph	Dilution Ratio 10 mph	Dilution Ratio 15 mph	Dilution Ratio 20 mph
10 gal/hr	1:0.2	Not Recommended	Not Recommended	Not Recommended
20 gal/hr	1:1.3	1:0.2	Not Recommended	Not Recommended
30 gal/hr	1:2.5	1:0.8	1:0.2	Not Recommended

#### Recommended Dilution Rates for Hand Held Thermal Foggers – 50 Ft. Swath Walking at 2 MPH

Machine Output	Dilution Ratio 0.00175/0.00175 Lbs. A.I./Acre	Dilution Ratio 0.0035/0.0035 Lbs. A.I./Acre	Dilution Ratio 0.007/0.007 Lbs. A.I./Acre
2 gal/hr	1:12.5	1:6	1:2.5
5 gal/hr	1:32.5	1:16.5	1:7.8
8 gal/hr	1:53.3	1:27	1:13

### As a Barrier Spray Using A Backpack Mister Type Unit:

For use in non-thermal, portable, motorized backpack equipment, apply Perm-X UL 2-2 with equipment adjusted to deliver ULV particles of 50 to 100 microns volume median diameter. Use 1.6 to 6.2 fl. oz. of the undiluted spray per acre (equal to 0.00175 to 0.007 lbs. a.i./acre) as a 50 ft. swath while walking at a speed of 2 mph (3.2 kph). May also be applied diluted, making sure that the same amount of a.i. (0.00175 to 0.007 lbs.) is applied per acre.

#### Recommended Dilution Rates for Backpack Mister Type Unit – 50 Ft. Swath Walking at 2 MPH

Machine Output	Dilution Ratio 0.00175/0.00175 Lbs. A.I./Acre	Dilution Ratio 0.0035/0.0035 Lbs. A.I./Acre	Dilution Ratio 0.007/0.007 Lbs. A.I./Acre
1 gal/hr	1:5.8	1:2.5	1:0.8
2 gal/hr	1:12.5	1:6	1:2.5
3 gal/hr	1:19.3	1:9.6	1:4.3
4 gal/hr	1:26.1	1:13	1:6

## AERIAL APPLICATION

Use aircraft specially equipped and capable of applying Ultra-Low Volumes of Perm-X UL 2-2. Applications must not exceed 0.007 lbs. permethrin per acre and 0.007 lbs. piperonyl butoxide per acre, equivalent to 6.27 fl. oz. of undiluted Perm-X UL 2-2 per acre. Applications should be made at an altitude range of 120 to 175 feet (37 to 53 meters). Apply at airspeed sufficient to deliver the appropriate amount of active ingredient per acre. The minimum height (from the ground) for aerial application of this product is 100 feet.

**PROHIBITION OF AERIAL USE IN FLORIDA:** Not for aerial use in Florida UNLESS specifically authorized by the Bureau of Entomology and Pest Control, Florida Department of Agriculture and Consumer Services.



**STORAGE & DISPOSAL**

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

**PESTICIDE STORAGE:** Store product in its original labeled container in a cool, dry, locked place designated for such insecticides and out of reach of children. In case of spillage, soak up with absorbent material such as sawdust, or fuller's 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.

**CONTAINER DISPOSAL:** Non-refillable container. Do not refill or reuse this container. Triple rinse or equivalent promptly after emptying.

[Containers 5 gallons or less] 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  $\frac{1}{4}$  full with mineral oil (or other solvent used to dilute the product) 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 reconditioning if appropriate or, incinerate if allowed by State and local authorities, or puncture and dispose of in a sanitary landfill, or by other procedures approved State and local authorities. If burned, stay out of smoke. [For Containers Greater than 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with mineral oil (or other solvent used to dilute the product). 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 reconditioning if appropriate or, incinerate if allowed by State and local authorities, or puncture and dispose of in a sanitary landfill, or by other procedures approved State and local authorities. If burned, stay out of smoke.

**NOTICE:** To the extent allowed by law, 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.