#### TEXT FOR JUG LABEL, TO BE PRINTED AS A SINGLE PANEL

# Propoxur MOS Insecticide

GROUP 1A INSECTICIDE

#### FOR CONTROL OF ADULT MOSQUITOES AND ADULT BLACK FLIES

#### **COMMERCIAL**

GUARANTEE: Propoxur ....... 120 g/L

REGISTRATION NO. 13212 PEST CONTROL PRODUCTS ACT

#### READ THE LABEL AND PAMPHLET BEFORE USING

#### KEEP OUT OF REACH OF CHILDREN

(See rear panel for precautions)



WARNING

POISON

NET CONTENTS: 20 - 200 LITRES

**NOTICE TO USER:** This control product is to be used only in accordance with the directions on this label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use a control product under unsafe conditions.

#### **PRECAUTIONS**

#### KEEP OUT OF REACH OF CHILDREN.

Spray personnel handling the concentrate should avoid inhalation and skin contact and should wash thoroughly after using. The concentrate may be harmful if swallowed. During mixing, loading, ground applications, cleanup and repair, wear rubber boots, rubber suits or rubber aprons over coveralls, chemical-resistant gloves, a respirator with a NIOSH/MSHA/BHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides, goggles and a cap or hat. Aerial applicators must wear long-sleeved shirts and long pants. Keep unauthorized and unprotected persons out of loading and mixing zones.

This product is for use only for control of adult mosquitoes and adult black flies. Do not use as an indoor spray. Do not apply under conditions where exposure from the aerosol or fog to an unprotected person(s) could occur.

#### **FIRST AID**

In case of poisoning call a physician or poison control centre immediately. Have patient lie down and keep quiet. **If swallowed,** vomiting should be induced. Administer water freely and induce vomiting by giving one dose (15 mL) of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. The patient should be lying down with the head below the foot level and facing down or to one side. Professional medical assistance should be secured immediately. DO NOT INDUCE VOMITING TO AN UNCONSCIOUS PERSON OR TO PERSONS IN A CONVULSIVE STATE. **If on skin,** remove contaminated clothing and wash skin immediately with soap and warm water. **If eyes are contaminated,** wash immediately with flowing water for at least 15 minutes.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION:** Propoxur inhibits cholinesterase resulting in stimulation of the central nervous system. This results in a sense of "tightness" in the chest, sweating, contracted pupils, stomach pains, vomiting and diarrhea. The antidote is atropine sulfate administered in large therapeutic doses repeated as necessary to the point of tolerance. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to birds, shrimp, crabs and other wildlife. Keep out of lakes, streams, ponds, tidal marshes, and estuaries. Do not contaminate water by cleaning of equipment or disposal of wastes. Toxic to bees. Consult your provincial apiarist before using. Apply this product only as specified on the label.

This product contains a petroleum distillate, which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

#### **DISPOSAL**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

**NOTICE TO BUYER:** Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

Bayer CropScience Inc.\* #100, 3131-114<sup>th</sup> Avenue S.E. Calgary, Alberta T2Z 3X2

\*Bayer Environmental Science A Business Group of Bayer CropScience

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NET CONTENTS: 4L - Bulk

BAYER CROPSCIENCE INC.\* #100, 3131-114<sup>th</sup> AVENUE S.E. CALGARY, ALBERTA T2Z 3X2

\*BAYER ENVIRONMENTAL SCIENCE A BUSINESS GROUP OF BAYER CROPSCIENCE **NOTICE TO USER:** This control product is to be used only in accordance with the directions on this label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use a control product under unsafe conditions.

**NOTICE TO BUYER:** Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

#### **DIRECTIONS FOR USE**

**GENERAL:** Propoxur MOS Insecticide is recommended for control of adult mosquitoes and adult black flies in outdoor areas. It provides rapid knockdown and kill of these pests. It maintains its killing efficiency at low temperatures. Propoxur MOS Insecticide is effective against non-resistant strains as well as strains that have become resistant to certain organophosphate insecticides. Applications may be made with ground equipment as a thermal fog or an ultra-low (ULV) non-thermal aerosol, or by aircraft. Repeat as necessary.

**MIXING:** Propoxur MOS Insecticide may be applied undiluted or diluted depending on the application equipment used. If dilution is required, oil such as No. 2 fuel oil (diesel) or kerosene may be used. **Do not use water.** To mix with oil, pour the required amount of Propoxur MOS Insecticide into the full amount of oil and agitate until the materials are thoroughly mixed.

**DOSAGE:** Use the specified dosage of Propoxur MOS Insecticide undiluted or in a sufficient volume of oil necessary to obtain uniform coverage.

#### **GROUND APPLICATION:**

Best results will be obtained when applications are made at right angles to the wind direction and when winds are light. Under these conditions fog will drift approximately 90 m downwind. Apply 1.5 to 2 L of Propoxur MOS Insecticide per kilometer front.

- 1. **Thermal Foggers:** The volume of oil needed to dilute Propoxur MOS Insecticide will depend upon the emission rate (output) of the fogger and the speed at which it will travel.
  - For example, if the emission rate of the fogger is 100 L per hour and the speed of travel is 8 km per hour, then the quantity of diluted material emitted per kilometer traveled would be 12.5 L (100 L per hour divided by 8 km per hour). Therefore the dosage of 1.5 to 2 L of Propoxur MOS Insecticide should be diluted with oil to a total volume of 12.5 L and applied along a one kilometer front.
- 2. **Non-Thermal ULV Aerosol Generators:** Use equipment designed specifically for ULV cold fogging, such as a LECO ULV HD or a Micro-Gen MS2 15. Apply Propoxur MOS Insecticide undiluted. Recommended flow rates and equipment speeds to obtain correct dosages are shown below:

FLOW RATE OF Propoxur MOS Insecticide [mL per minute]	EQUIPMENT SPEED [kilometres per hour]
120 to 160	5
235 to 325	10
355 to 490	20
475 to 650	30

**NOTE:** Spray droplets must have a volume median diameter (VMD) not exceeding 45 microns. The method of determining the range and volume median diameter of spray droplets will be provided by BAYER CropScience on request.

## **AIRCRAFT APPLICATION:**

### GENERAL DIRECTIONS FOR USE AND PRECAUTIONS

Propoxur MOS Insecticide may be applied by aircraft only for control of adult mosquitoes and adult black flies. CLOSED COCKPITS ARE REQUIRED FOR ALL AERIAL APPLICATIONS OF PROPOXUR MOS INSECTICIDE. Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices. Human flagging is prohibited.

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label. Apply only when meteorological conditions at the treatment site allow for complete and even coverage and on-target deposition of the product.

Apply 275 mL to 1.1 L of Propoxur MOS Insecticide per hectare diluted with oil to a sufficient volume necessary to obtain uniform coverage. The higher rate of Propoxur MOS Insecticide may be required for control in dense vegetation. Label rates, conditions and precautions are product specific. Apply only at the rate recommended for aerial application on this label.

AERIAL APPLICATIONS FOR MOSQUITO OR BLACK FLY CONTROL ARE TO BE MADE ONLY BY AUTHORIZED FEDERAL, PROVINCIAL AND MUNICIPAL GOVERNMENT OFFICIALS AND BY COMMERICAL PEST CONTROL OPERATORS. CONSULT PROVINCIAL PESTICIDE REGULATORY AUTHROIRTIES ABOUT USE PERMITS WHICH MAY BE REQUIRED.

Spray droplets must have a volume median diameter (VMD) not exceeding 45 microns. Droplets 45 microns or larger may cause permanent damage to the paint finishes of automobiles, trailers and boats.

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-888-283-6847 or obtain technical advice from the distributor or your provincial representative.

#### **PRECAUTIONS**

#### **Operator Precautions:**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted. It is desirable that the pilot has communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear Personal Protective Equipment as outlined under

PRECAUTIONS on this label during mixing/loading, cleanup and repair. All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

#### **Use Precautions:**

EXERCISE EXTREME CAUTION DURING THE AERIAL APPLICATION OF ANY PESTICIDE:

Apply only when conditions at the treatment site allow for complete and even coverage and on-target deposition of the product. Apply only under conditions of good practice specific to aerial application as outlined in the *Basic Knowledge Requirements for Pesticide Education in Canada: Applicator Core* and *Aerial Module*.

#### RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that Propoxur MOS Insecticide contains a Group 1A insecticide. Any insect population may contain individuals naturally resistant to Propoxur MOS Insecticide and other Group 1A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed. To delay insecticide resistance:

- Where possible, rotate the use of Propoxur MOS Insecticide or other Group 1A insecticides with different groups that control the same pests in the area.
- Use tank mixtures with insecticides from a different group when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- 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 Bayer CropScience Inc. at 1-888-283-6847 or via the internet at www.bayercropscience.ca.

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