Group 11 Insecticide

TEKNAR® HP-D LARVICIDE

for Mosquito and Blackfly Control

RESTRICTED

SUSPENSION

GUARANTEE:

Bacillus thuringiensis subsp. *israelensis*, Serotype H-14, strain SA3A, 1200 International Toxic Units per mg

CAUTION:

POTENTIAL SENSITIZER EYE IRRITANT

REGISTRATION NO. 19241 PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

NET CONTENTS: 5 litres – 20 litres

Lot. No. Date of Manufacture:

This product should be used within 6 months of the date of manufacture

Registrant: Canadian Agent:
Valent BioSciences Corporation Valent Canada, Inc.
870 Technology Way 6-130 Research Lane
Libertyville, Illinois 60048, USA Guelph, Ontario N1G 5G3
1-800-323-9597

PRECAUTIONS:

KEEP OUT OF REACH OF UNAUTHORIZED PERSONNEL. MAY CAUSE SENSITIZATION; CAUTION EYE IRRITANT

DO NOT apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

Avoid contact with skin, eyes, and clothing. Avoid breathing dust/spray mist. Wear a long sleeved shirt, long pants, waterproof gloves, shoes and socks, eye goggles, and NIOSH-approved respirator with any N-95, R-95, or P-95 filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities. Applicators may remove gloves, eye goggles, and respirators if the design and delivery of the application apparatus reduces exposure to a negligible level (e.g. backpack sprayer with application wands that apply product directly over water surface). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

FIRST AID		
If on skin or clothing	Rinse skin immediately with plenty of water. Remove contaminated clothing and wash separately before reuse. If irritation occurs and persists or is severe, seek medical attention.	
If in eyes	Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, then continue rinsing eye. If irritation occurs and persists or is severe, seek medical attention.	
If inhaled	Move person to fresh air, apply respiration if needed and seek medical attention.	
If swallowed	Rinse mouth and throat with copious amounts of water. DO NOT induce vomiting. Promptly contact a physician or poison control centre. DO NOT give anything by mouth to an unconscious person.	
General	Seek medical attention if irritation or signs of toxicity occur and persist or is severe. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.	

TOXICOLOGICAL INFORMATION: Treat symptomatically.

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from such use of this product.

NATURE OF RESTRICTION: This product is to be used only in the manner authorized; contact local pesticide regulatory authorities about use permits which may be required.

RESTRICTED USES

FOR USE IN MUNICIPAL OR PROVINCIAL CONTROL PROGRAMS

For mosquito larvae control, TEKNAR* HP-D may be applied to any water sites except treated, finished drinking water. Applications to irrigation water are permissible.

GENERAL MIXING INSTRUCTIONS: Always shake or stir thoroughly before use. Pour recommended amount of TEKNAR HP-D onto surface of water in a nearly filled spray tank. Maintain agitation. Do not mix more TEKNAR HP-D than can be used in 18 hours

SPECIFIC INSTRUCTIONS FOR MOSQUITO CONTROL

APPLICATION: Apply TEKNAR HP-D when larvae are in 1st to early 4th instar. Larvicidal action occurs within 24 hours. Reapply as needed.

TEKNAR HP-D may be applied either by air or ground application techniques. When using standard spray equipment, use adequate volume of water to insure good coverage and penetration. As low as 9 litres/hectare can be applied where the site is open and vegetative cover is light. TEKNAR HP-D may also be applied undiluted through appropriate ULV equipment. For aerial application, apply in even swaths when wind conditions do not favor drift or wind speeds are less than 10 km/hr.

AERIAL APPLICATION INSTRUCTIONS:

Apply only by fixed-wing or rotary aircraft equipment that has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application by using appropriate marking devices and/or electronic guidance equipment.

Use Precautions:

Apply only when meteorological conditions at the treatment site allow for complete and even coverage. Apply only when meteorological conditions are in compliance with local and /or provincial authorities.

Operator Precautions:

DO NOT allow the pilot to mix product to be loaded onto the aircraft. However, loading of premixed product 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 the personal protective equipment described in the PRECAUTIONS section of this label. When handlers/loaders use closed systems to load product onto the aircraft, the handler requirement for eye goggles and a NIOSH-approved respirator with any N-95, R-95, or P-95 filter for biological products may be waived. When reduced personal protective equipment is worn, the respirator/mask must be immediately available for use in an emergency such as a spill or equipment breakdown.

All personnel on the jo b site must wash hands and face thoroughly before eating and drinking. Protective clothing must be washed before reuse. Decontam inate aircraft cockpit and vehicle cabs regularly.

Product Precautions:

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-323-9597 or obtain technical advice from the distributor or from your provincial agricultural or forestry representative. Application of this specific product must meet and/or conform to the aerial uses and rates on this label.

DIRECTIONS: Use lowest rate when 1st to 3rd instar larvae are predominant and highest rate when late 3rd to early 4th instar are predominant in the mosquito population. For guidance, rate ranges according to the most common mosquito habitats are provided below.

FOR USE IN:	RATE REQUIRED FOR CONTROL
flood water, pastures, standing ponds, and	0.3-0.6/litres hectare
ditches	$(3-6 \text{ mL}/100 \text{ m}^2)$
tidal water and salt marshes, catch basins, and	0.6-1.2/litres hectare
storm water retention areas	$(6-12 \text{ mL}/100 \text{ m}^2)$
water polluted with sewage, water with moderate	1.2 litres/hectare
organic content, and water with a high level of	$(12 \text{ mL}/100 \text{ m}^2)$
suspended solids	

SPECIFIC INSTRUCTIONS FOR BLACKFLY CONTROL APPLICATION:

For blackfly control, apply with conventional air or ground equipment or with metered release upstream from infested sites to achieve recommended concentrations. Larvicidal action is expected within 24 hours. Reapply as needed.

DIRECTIONS: Estimating water velocity, maintain a 0.5 to 1.5 ppm concentration in the stream or river for 15 minutes. If a shorter dosage time is desired, use an equivalent amount of TEKNAR HP-D by increasing the concentration. Use higher doses in colder temperatures or sites with heavy sediment load.

RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, please note that TEKNAR HP-D contains a Group 11 insecticide. Any insect population may contain individuals naturally resistant to TEKNAR HP-D and other Group 11 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same site. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. The following appropriate resistance management strategies should be followed to delay insecticide resistance:

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- Where possible, rotate the use of TEKNAR HP-D or other Group 11 insecticides with different groups that control the same pests in a site.
- Insecticide use should be based on an Integrated Pest Management 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 or certified crop advisors for any additional pesticide resistance management and/or integrated pest management recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Valent BioSciences Corporation at 1-800-323-9597.

STORAGE: In order to ensure microbial purity and potency, TEKNAR HP-D should be stored in the original container between 5°C and 15°C and used within 6 months of the date of manufacture.

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.

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