

GROUP	11	INSECTICIDE
-------	----	-------------

**THURICIDE® HPC
HIGH POTENCY AQUEOUS CONCENTRATE
SUSPENSION**

BIOLOGICAL INSECTICIDE COMMERCIAL

AQUEOUS CONCENTRATE

READ THE LABEL BEFORE USING

GUARANTEE:

Bacillus thuringiensis subspecies *kurstaki* strain SA-1215.0% w/w Fermentation solids, insolubles, and lepldopteran active toxins

KEEP OUT OF REACH OF CHILDREN

POTENTIAL SENSITIZER

CAUTION EYE IRRITANT

Store out of direct sunlight at temperatures between 0°C and 25°C

Protect from freezing

REGISTRATION NO.: 11302 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 10 L

LOT NO.

DATE OF MANUFACTURE:

USE WITHIN 6 MONTHS OF DATE OF MANUFACTURE

Manufactured by:
Certis USA, L.L.C.
9145 Guilford Road, Suite 175
Columbia, MD 21046

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

MAY CAUSE SENSITIZATION. CAUTION EYE IRRITANT. Avoid contact with skin, eyes or clothing. Wear a long sleeved shirt, long pants, water proof gloves, shoes plus socks, eye goggles and a 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. When applicators used closed system (e.g. enclosed cabs) the personal protective equipment requirements may be reduced or modified. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Avoid breathing spray mist.

FIRST AID

IF ON SKIN OR CLOTHING. Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move to 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 centre or doctor for further treatment advice.

IF SWALLOWED. Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. 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 the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

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

This product contains a petroleum distillate. Vomiting may cause aspiration pneumonia. Treat symptomatically.

RESISTANCE MANAGEMENT STATEMENT

For resistance management, please note that THURICIDE® HPC contains a Group 11 insecticide. Any insect population may contain individuals naturally resistant to THURICIDE® HPC and other Group 11 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 specific for individual chemicals, such as enhanced metabolism, may also exist. The following appropriate resistance management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of THURICIDE® HPC and other Group 11 insecticides with different groups that control the same pests in a field.
- Use tank mixtures with insecticides from a different group when such use is permitted.
- 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 recommendation for specific site and pest problems in your area
- For further information or to report suspected resistance, contact Certis USA at (800) 847-5620 or at www.certisusa.com.

DIRECTIONS FOR USE

GENERAL: THURICIDE® HPC is a biological insecticide and is intended for use against leaf-chewing larvae (caterpillars) of lepidopterous species. Apply at first sign of infestation when worms are small and repeat at 7-10 day intervals when needed to maintain control. THURICIDE® HPC attacks the larval gut when eaten by the insect so thorough underleaf coverage is essential. After eating THURICIDE® HPC, worms stop feeding and die within 12-72 hours. On agricultural crops, THURICIDE® HPC may be applied up to the day of harvest. Add a sticker, adhesive deposit builder where heavy dew or rain is encountered.

MIXING: Always shake or stir, THURICIDE® HPC thoroughly before putting recommended amount into a nearly filled spray tank. Maintain agitation. Do not allow diluted sprays to stand in the tank for more than 12 hours. Combinations with chemical insecticides, fungicides, spreader-stickers, and stickers in the tank are generally not harmful to THURICIDE® HPC if the mix is used promptly

In order to ensure microbial purity and potency THURICIDE® HPC should be stored in the original container at 0° C to 25° C and used within 6 months of the date of manufacture.

DO NOT apply to any type of irrigation system.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

As this pesticide is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

TREE APPLICATIONS

GROUND APPLICATION ONLY: Use the recommended amount of THURICIDE® HPC in 1000 litres of water per hectare in high pressure, high gallonage hydraulic sprayers. For mistblowers use recommended amount in 100 litres of water per hectare. Wet foliage thoroughly but not to the point of excessive runoff. To prevent wash-off by rain, add a sticker to the finished spray.

Pest	Crop	Litres Per Hectare
Bagworm	Ornamentals and	4.80-7.14
Elm Spanworm	shade	4.80-7.14
Fall Spanworm	trees in farm	4.80-7.14
Gypsy Moth*	woodlots,	7.14-12.0
Spring & Fall Cankerworm	municipal parks and rights-of- way	2.90-4.80
Forest Tent Caterpillar	Balsam fir and Spruce trees in Christmas	2.90-4.80
Eastern Spruce Budworm**	Tree plantations, farm Woodlots, Municipal	4.80-7.14
Western Spruce Budworm	parks And rights-of- way	7.14-9.50

* Spray when leaf expansion reaches 40-50% or if reinfestation occurs, spray about 14 days after the first application.

** Apply during 3rd-4th instar. Also consider the opening of the bud cap to ensure foliage exposure. If larval densities are high, repeat spray 3-5 days later.

Note: Before using this product, consult regional Canadian Forestry Service officers or provincial forest authority for information on dosage, timing and method of application.

DIRECTIONS FOR USE

AGRICULTURAL AND GREENHOUSE APPLICATIONS

Ground Application: Use recommended amount of THURICIDE® HPC in a minimum of 200 litres of water per hectare depending on type of equipment and crop.

Aerial Applications:

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 rate and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. 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. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Use Precautions:

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. 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*, developed by CAPCO.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

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 the personal protective equipment described in the PRECAUTIONS section of this label. When handlers/loaders use closed systems to load the product onto the aircraft, the handler requirement for eye goggles and a NIOSH –approved respirator/mask 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 and eye goggles must be immediately available for use in an emergency such as a spill or equipment breakdown

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing must be washed before reuse. Decontaminate aircraft cockpits and vehicle cabs if contamination occurs.

Product Specific Precautions:

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at (800) 250-5024 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 1.0 litre per hectare.

Application Rates for THURICIDE® HPC:

THURICIDE® HPC should be applied undiluted by aerial application equipment. Dilute with minimal quantities of water only when required to improve deposit. Best results can be expected when THURICIDE® HPC is applied to dry foliage with calibrated aircraft capable of obtaining droplet sizes below 300 microns and preferably in the range of 50-150 microns. If dilution is necessary fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding THURICIDE® HPC. Add the recommended rate of THURICIDE® HPC to the tank or plane hopper and agitate until uniformly suspended. Do not mix more THURICIDE® HPC than can be applied in a 12-hour period. If using undiluted product, continual mixing is not necessary and should be avoided.

Pest	Crop	Litres Per Hectare
Cabbage Looper	Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Celery, Kale, Lettuce, Mustard Greens, Potatoes, Spinach, Tomatoes	2.00-4.25
Diamondback Moth and Imported Cabbageworm	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	2.00-4.25
Essex Skipper	Timothy Mixtures and Other Forage grasses	1.75-2.25
Hornworms	Tobacco, Tomatoes	0.75-1.50
Rangeland Caterpillar	Rangeland	1.50-3.50

Pest	Greenhouse Use	Litres per 1000 L of Water
Cabbage Looper	Chrysanthemum	5.00
Omnivorous Leafroller	Roses	5.00
Cabbage Looper	Tomatoes	5.00
Hornworms	Tomatoes	2.50-5.00

STORAGE

Store out of direct sunlight at temperatures between 0°C and 25°C. Cooler storage temperatures are preferred. Keep containers tightly closed. Store container upright and keep tightly closed when not in use. After extended storage, shake or stir contents to assure a uniform suspension. Use product within 6 months of date of manufacture.

DISPOSAL

1. Triple -or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. 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 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 any such use of this product.

**IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING
CALL 1-800-255-3924.**

THURICIDE[®] HPC is a registered trademark of Certis USA, L.L.C

This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information. This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.