

Thuricide 48 LV Forestry

Biological Insecticide

Master Label

Aqueous Concentrate for Aerial or Ground Application
For Control of Insect Pests on Forest Trees

ACTIVE INGREDIENT:

Bacillus thuringiensis kurstaki solids, spores, and insecticidal
toxins*.....19.0%

INERT INGREDIENTS:.....81.0%

TOTAL:.....100.0%

* The percentage active ingredient does not indicate product performance and potency measurements are not federally standardized.

KEEP OUT OF REACH OF CHILDREN**CAUTION**

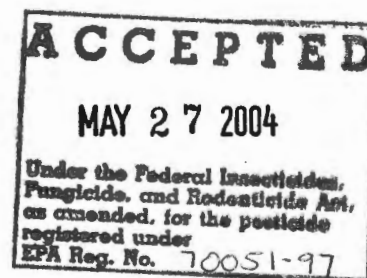
EPA Registration Number: 70051-97

EPA Establishment Number: 70051-CA-001

Net Contents: 5 gal., 53 gal., Bulk

Lot No.:

Made in U.S.A.

**FIRST AID**

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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 center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number: 1-800-255-3924.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS—CAUTION: Harmful if inhaled. Avoid breathing spray mist. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Engineering Controls Statement

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

ENVIRONMENTAL HAZARDS:

Except under the forest canopy, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

Suspension must be shaken or stirred before use. Pour the application rate amount of Thuricide 48 LV Forestry into the required volume of water in the spray tank. Agitate as necessary to maintain suspension. Do not allow diluted sprays to remain in the tank for more than 72 hours. Thuricide 48 LV Forestry is formulated to provide desirable coverage and stickability on leaf surfaces. Additional adjuvants, spreaders, or stickers may be added but are not essential.

Do not apply this product through any type of irrigation system.

GROUND APPLICATION

Use adequate water to obtain good foliar coverage. Wet foliage but do not allow excessive runoff. Apply the per acre application rates of Thuricide 48 LV Forestry with the following amounts of water:

- 100 gallons with high-gallonage hydraulic sprayers
- 10 gallons with mist blower

AERIAL APPLICATION

Apply Thuricide 48 LV Forestry at application rates by air either alone or as a spray mix diluted with water. Use spray volumes of 32-128 fluid ounces per acre. Best results are expected when Thuricide 48 LV Forestry is applied to dry foliage with a calibrated aircraft capable of obtaining droplet sizes below 300 microns and preferably in the range of 50-150 microns.

APPLICATION RATES FOR FORESTRY INSECT CONTROL*

Thorough coverage is essential when using Thuricide 48 LV Forestry. Use the lower rate for light to moderate infestations. Use the higher rates against heavier worm infestations.

Pest	Ounces Per Acre	Dosage BIU Per Acre	Directions
Spring Cankerworm	11-44	4-16	Apply when leaf expansion reaches 40-50% as infestation warrants. If eggs hatch over a long period of time or if reinfestation occurs, respray about 14 days after the first application.
Fall Cankerworm	11-44	4-16	
Elm Spanworm	11-44	4-16	
Tent Caterpillar	11-44	4-16	
Gypsy Moth	22-106	8-40	
Spruce Budworm	16-106	6-40	Apply when most larvae are 3 rd -4 th instar. Also consider the opening of the bud cap to ensure foliage exposure.
Douglas Fir Tussock Moth	11-44	4-16	Apply after eggs have hatched and early instar larvae are feeding on exposed foliage
Jack Pine Budworm	11-44	4-16	
Bagworms	11-44	4-16	
California Oak Moth	11-44	4-16	
Western Tussock Moth	11-44	4-16	
Fruit Tree Leafroller	11-44	4-16	
Mimosa Webworm	11-44	4-16	
Redhumped Caterpillar	5-32	2-12	
Fall Webworm	5-22	2-8	
Pine Butterfly	16-64	6-24	
Eastern Hemlock Looper and Western Hemlock Looper	22-106	8-40	
Oakleaf Tier	11-44	4-16	
Whitemarked Tussock Moth	11-44	4-16	

*Professional application only

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool place. Activity may be impaired by prolonged storage at temperatures above 90 F. Protect from freezing.

Pesticide Disposal: Wastes resulting from this product must be disposed on on-site or at an approved waste disposal facility.

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.

Metal Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of container in a sanitary landfill, or, by other procedures approved by state and local authorities.

Warranty

Certis USA warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. **NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.**

Thuricide is a registered trademark of Certis USA

Certis USA
9145 Guilford Road, Suite 175
Columbia, MD 21046

SUPPLEMENTAL LABELING
NON WPS

Thuricide 48 LV Forestry

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For Control of Ornamental, Shade Tree, and Forest Pests
(Governmental and/or Professional application only)

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eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

As a general precaution when exposed to potentially high concentrations of living microbial products such as this, all mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS:

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DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

DIRECTIONS FOR NON-AGRICULTURAL APPLICATIONS

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior plantscapes, ornamental gardens or parks, or on golf courses or lawns and grounds.

Not for use on trees being grown for sale or other commercial use, or for commercial seed production, or for the production of timber or wood products, or for research purposes except wide-area public pest control programs sponsored by government entities, such as mosquito abatement, gypsy moth control, and mediterranean fruit fly eradication.

MIXING

Suspension must be shaken or stirred before use. Pour the application rate amount of Thuricide 48 LV Forestry into the required volume of water in the spray tank. Agitate as necessary to maintain suspension. Do not allow diluted sprays to remain in the tank for more than 72 hours. Thuricide 48 LV Forestry is formulated to provide desirable coverage and stickability on leaf surfaces. Additional adjuvants, spreaders, or stickers may be added but are not essential.

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APPLICATION RATES FOR FOREST INSECT PESTS

Thorough coverage is essential when using Thuricide 48 LV Forestry. Use the lower rate for light to moderate infestations. Use the higher rates against heavier worm infestations.

Pest	Ounces Per Acre	Dosage BIU Per Acre	Directions
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Whitemarked Tussock Moth	11-44	4-16	
Eastern/ Western Hemlock Looper	22-106	8-40	
Oakleaf Tier	11-44	4-16	

Thuricide 48 LV Forestry may also be used to protect trees and shrubs (governmental or professional application only) as in:

- Residential and municipal ornamental and shade tree areas
- Recreational areas such as campgrounds, golf courses, parks and parkways
- Shelterbelts, rights of way and other easements

APPLICATION RATES FOR SMALLER SPRAY VOLUMES

If Rate is	Use This Amount Per Gallon
½ pt./acre or 100 gallons	½ tsp.
1 pt./acre or 100 gallons	1 tsp.
2 pts./acre or 100 gallons	2 tsps.
4 pts./acre or 100 gallons	4 tsps.

STORAGE AND DISPOSAL

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Pesticide Disposal: Wastes resulting from this product must be disposed on on-site or at an approved waste disposal facility.

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.

Metal Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of container in a sanitary landfill, or, by other procedures approved by state and local authorities.

Warranty

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

Thuricide is a registered trademark of Certis USA, L.L.C.

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