

11273-2

04/24/1979

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**ACCEPTED**  
 APR 24 1979  
 APR 24 1979  
 Under the Federal Insecticide,  
 Fungicide, and Rodenticide Act,  
 as amended, for the pesticide  
 registered under  
 EPA Reg. No. 11273-2



# thuricide®-HPC

## HIGH POTENCY AQUEOUS CONCENTRATE

**ACTIVE INGREDIENTS:** *Bacillus thuringiensis* Berliner,  
 potency of 4,000 International Units  
 (at least 6 million viable spores) per milligram\* . . . . . 0.8%  
 Fxroleum hydrocarbon solvent . . . . . 3.0%  
**INERT INGREDIENTS:** . . . . . 96.2%

100.0%

\*Equivalent to 4.0 billion International Units per quart.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

**AVOID INHALATION OR CONTACT WITH EYES OR  
 OPEN WOUNDS. APPLY THIS PRODUCT ONLY AS  
 SPECIFIED ON THIS LABEL.**

STORE IN A COOL PLACE

Activity may be impaired by storage at temperatures above 90° F.  
 Protect from freezing.

**DIRECTIONS FOR USE**

**GENERAL:**

Apply at first sign of infestation when worms are small and repeat at weekly intervals as needed to maintain control. Thuricide HPC attacks the larval gut and must be eaten by the insect to be effective. Thorough underleaf coverage is, therefore, essential for best results. After eating Thuricide HPC, worms stop feeding and die within 2-3 days. Since the active ingredient, *Bacillus thuringiensis*, is exempt from tolerance requirements, Thuricide HPC may be applied up to the day of harvest.

**MIXING:**

Always shake or stir Thuricide HPC thoroughly before use. Pour recommended amount of Thuricide HPC onto surface of water in a nearly filled spray tank. Maintain agitation. Use the higher rates against very heavy worm infestations, or where it is difficult to get good coverage due to rank foliage. Do not allow dilute 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 deleterious to Thuricide HPC if the mix is used promptly.

**GROUND APPLICATION:**

Use recommended amount of Thuricide HPC in a minimum of 5 to 50 gallons of water, depending on the type of crop and requirements of state regulations. Add a sticker, adhesive or deposit builder where heavy dew or rain is encountered.

**GROUND APPLICATION, TREES:**

Use recommended amount of Thuricide HPC in 100 gallons of water in high pressure, high gallonage, hydraulic sprayers. Wet foliage thoroughly with spray but not to the point of excessive runoff. For mist blowers use recommended amount in 10 gallons of water. To prevent washoff by rain add a sticker to the finished spray.

**AERIAL APPLICATION:**

Use recommended amount of Thuricide HPC in 5 to 20 gallons of water. A sticker should be added under conditions of heavy dew or rain. Apply early morning or evening when the air is calm.

**CONTAINER DISPOSAL:**

Do not reuse empty container. Destroy or discard in safe place.

**NOTICE:** Sandoz, Inc. makes no warranty, express or implied, including the warranties of merchantability and/or fitness for any particular purpose, concerning this material except those which are contained on Sandoz, Inc.'s label.

NET \_\_\_\_\_ U.S. GALLONS



Sandoz, Inc.  
 Crop Protection  
 480 Camino Del Rio So.  
 San Diego, California 92108

E.P.A. Reg. No. 11273-2

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RECOMMENDATIONS: Thorough coverage is essential when using Thuricide<sup>®</sup> HPC Aqueous Concentrate

Crop	Pest	Qts. per Acre
ALFALFA (Arizona, West Coast)	Alfalfa caterpillar	1/4
ALMONDS, PECANS	Redhumped caterpillar	1 - 2
ALMONDS**, CHERRIES**, FILBERTS** Apply when caterpillars are actively feeding (2 - 4th instar).	Tent caterpillar	1 - 2
APPLES** (Eastern U.S.) Apply when eggs or newly hatched larvae first appear. Continue applying as a part of the normal cover spray program until pest is adequately controlled.	Redbanded leafroller Tufted apple budmoth Variegated leafroller	1 - 2
BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, COLLARDS, KALE, MUSTARD GREENS, TURNIP GREENS	Cabbage looper Imported cabbage worm Diamondback moth	1 - 2 1/2 - 1-1/2 1/2 - 1
BEANS, BEETS, CARROTS, CELERY, CHINESE CABBAGE (Choy sum), COS LETTUCE, ENDIVE, ESCAROLE, KOHLRABI, LENTILS, LETTUCE, NEW ZEALAND SPINACH, PEPPERS, SPINACH, SQUASH	Cabbage looper	1 - 2
CUCUMBERS (Southeast only), MELONS, POTATOES	Cabbage looper	1/2 - 1-1/2
*CURRANTS, BLUEBERRIES, CANE BERRIES (BLACKBERRIES, DEWBERRIES, RASPBERRIES)	Omnivorous leafroller	1 - 2
*Apply by ground equipment only. Begin treatment as soon as possible after hatching and before larvae are protected by leaf folds.		
COTTON	Tobacco budworm, Cotton bollworm	1 - 2
For the suppression of light to moderate infestations, apply at first sign of egg laying or newly hatched worms (1st and 2nd instar larvae). Reapply at 3-5 day intervals to sustain worm suppression or until adequate reduction of worm population is achieved. Use Thuricide HPC under a pest management program that includes close scouting. If heavy worm populations occur, it may be necessary to apply an insecticide with rapid knockdown and good larvicidal activity as a replacement. Apply from 5-15 gallons total spray per acre with ground equipment and from 2-5 gallons total spray per acre with aerial equipment.		
COTTON (Arizona, California)	Cabbage looper	1 - 2
FILBERTS** Apply at 10% egg hatch	Filbert leafroller	1 - 2
SOYBEANS	Soybean looper Cabbage looper, Green cloverworm, Velvetbean caterpillar	1 - 1-1/2 1/2 - 1-1/2
TOBACCO	Cabbage looper Tobacco budworm, Tobacco hornworm	1 - 1-1/2 1/2 - 1-1/2
TOMATOES	Cabbage looper Tomato hornworm	1 - 1-1/2 1/2 - 1-1/2
WATERMELONS (Florida)	Rindworm complex	1/2 - 1-1/2
GRAPES	Grape leaf folder	1 - 2
Start treating as soon as possible after hatching and before larvae are protected by leaf folds. Apply by ground equipment in up to 200 gallons total spray per acre to obtain thorough coverage of leaf surfaces.		
GRAPES (California)	Omnivorous leafroller	1/2 - 1-1/2
**To achieve adequate coverage of large trees or dense foliage, aerial application of not less than 15 gpa is preferred.		
<u>The following must be applied by ground equipment only:</u>		
ORANGES (Arizona, California)	Fruit tree leafroller Orange dog	1 - 2 1/2 - 1
WALNUTS (California)	Redhumped caterpillar	1/4 - 1
SHADE TREES, ORNAMENTALS, FOREST	Spring & Fall cankerworm, Fall webworm, Great Basin Tent caterpillar (West U.S.), Tent caterpillar Redhumped caterpillar (California) Oakmoth larvae (California), Gypsy moth (Northeast)*	1/2 - 1 1/2 - 2 1 - 2

\*GYPSY MOTH: Aerial Application

Thuricide HPC may also be applied by air to prevent excessive defoliation by gypsy moth. For best results, spray when leaf expansion reaches 40% - 50%, and respray 14 days later. Use two quarts of Thuricide HPC in 1 - 4 gallons finished spray per acre. Incorporate in the spray mix an evaporation retardant, such as molasses, Cargill's Insecticide Base, polyethylene glycol E-400, and a film-forming sticker. To obtain thorough coverage use spray equipment suitable to deliver droplets with an average diameter of less than 300 microns.