

70051-86

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

March 23, 2010

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Christine A. Dively
Director of Regulatory Affairs
CERTIS USA, LLC
9145 Guilford Road, Suite 175
Columbia, MD 21046

RE: Product Name: Crymax
EPA Reg. No: 70051- 86
Application for Notification dated November 13, 2009, to add container reuse statement to the Storage and Disposal section as permitted by PR Notices 2007-4 and 2008-1.

Dear Ms. Dively,

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under Pesticides Registration Notice (PRN) 98-10 dated above. A preliminary screen of this request has been conducted for its applicability under PRN 98-10 and it has been determined that the action(s) requested falls within the scope of PRN 98-10. Our records have been duly noted, and the letter submitted with this application has been stamped "Notification, received and accepted" and will be placed accordingly in our records.

Questions concerning this action should be directed to Mary Paden (703) 308-0411 or email at paden.mary@epa.gov.

Sincerely,

Sheryl K. Reilly

Sheryl K. Reilly, Ph.D., Chief
Microbial Pesticides Branch
Biopesticides and Pollution Prevention
Division (7511P)

CONCURRENCES

SYMBOL	7511P						
SURNAME	Paden						
DATE	3-18-10						

Crymax[®]

BIOINSECTICIDE

CRYMAX[®] WDG water dispersible granule bioinsecticide is a biological insecticide for the control of lepidopteran pests.

Active Ingredient:

Bacillus thuringiensis subspecies *kurstaki* strain EG7841 solids, spores and Lepidopteran active toxins*40.0%

Other Ingredients:60.0%

Total100.0%

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

Net Contents:

5 U.S. Pound Bag

EPA Reg. No. 70051-86

EPA Est. No. 62171-MS-001

Lot No.:

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

KEEP OUT OF REACH OF CHILDREN
CAUTION

NOTIFICATION
Date Reviewed: 03-18-10
Reviewed By: *m. J. Puder*
CERTIS

FIRST AID

If in eyes: Hold eyes 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 further treatment advice.

Hot Line Number: 1-800-255-3924

ENVIRONMENTAL HAZARDS

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.

This product must not be applied aerially within 1/4 mile of any habitats of endangered or threatened Lepidoptera. No manual application can be made within 300 ft. of any threatened or endangered Lepidoptera.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

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

Follow the 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.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. 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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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.

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 intervals. The requirements in this section only apply to uses of this product that are covered by the Worker Protection Standard.

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, protective eyewear, shoes plus socks.

Preharvest Interval: CRYMAX may be applied to the crops listed in the APPLICATION RATE TABLE at any time, up to and on the day of harvest.

Mode of Action: After consuming a lethal dose of CRYMAX, larvae will cease to feed, but may remain alive on foliage for several days before disappearing. Immediately after ingestion of Crymax larvae begin to move slowly, become discolored, shrivel and blacken prior to death.

MIXING INSTRUCTIONS

CRYMAX may be applied with conventional ground, aerial or hand held application equipment with quantities of water sufficient to provide thorough coverage of infested plants. Do not apply this product through any type of irrigation system. To obtain a suitable mixture with water, add enough water to allow maximum agitation. With agitator running, slowly add in the CRYMAX. Continue agitation. Add remainder of water and other spray materials and agitate until mixed. Maintain suspension while loading and spraying. Do not mix more CRYMAX than can be used in a 24-hour period. Rinse and flush spray equipment thoroughly following each use. Do not contaminate water when disposing of equipment washwaters.

In order to make proper decisions on application rates to be used, follow the recommendations in the APPLICATION RATE TABLE.

APPLICATION INSTRUCTIONS

Aerial Application

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

CRYMAX is a biological insecticide for use against the lepidopteran larvae listed in the APPLICATION RATE TABLE. Larvae must consume deposits of CRYMAX to be affected. Always follow these directions:

- Make applications when larvae are still small (early instars <1/2" in length) and actively feeding on foliage or other plant parts.
- Make applications before noticeable foliar damage occurs.
- Thorough spray coverage is essential for good insect control.
- For ground applications, directed drop nozzles should be used for certain vegetable crops. For orchard applications, a spray volume of 100 gallons per acre and treatment of each orchard row is recommended.
- Do not use screens smaller than 50 mesh.
- For ground applications, use a minimum spray volume of 20 gallons per acre. For aerial applications, use a spray volume of at least 5 gallons per acre. (See cotton and soybeans for special instructions.)
- When insect infestations are heavy, use the higher label rates, shorten the spray interval, and/or use larger total spray volume to improve spray coverage.
- Applications should be repeated at an interval sufficient to maintain control, depending upon plant growth, insect pressure and weather conditions after spraying.
- Local conditions may affect the use of CRYMAX. Consult your State Agricultural Extension Specialist for specific recommendations related to local crop protection problems.
- Spray water/spray tank solutions should not exceed pH 8.0. If necessary, buffer water to near neutral pH.

HAND HELD EQUIPMENT

When using hand held equipment, mix 2 teaspoons per gallon of water or 1-1/2 pounds per 100 gallons of spray solution. Spray to wet, but not to runoff.

TANK MIX

CRYMAX may be tank mixed with contact pesticides. Combinations of CRYMAX with commonly used insecticides, fungicides, or other spray tank adjuvants are generally not deleterious to performance. It is advisable to test physical compatibility by mixing all components in a small container in proportionate quantities prior to mixing in spray tank. This product cannot be mixed with any product containing a label prohibition against such mixing. No label dosage rate should be exceeded. Application must be made in accordance with the more restrictive of label limitation and precautions.

For improved durability of spray deposits, a spreader/sticker approved for use on growing crops may be used for hard-to-wet crops such as cole crops.

APPLICATION RATE TABLE

I. VEGETABLE AND COLE CROPS		
Crop such as:		Insect Pest
Artichokes	Leeks	Alfalfa looper
Arugala	Lentils	Armyworm*
Asparagus	Lettuce (Head, Leaf, Romaine)	Artichoke plume moth
Beans	Malanga	Beet armyworm*
Beets	Melons	Cabbage budworm
Bok Choy	(Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc.)	Cabbage looper
Broccoli	Napa	Celery leaf-tier
Brussels sprouts	Okra	Corn earworm
Cabbage	Onions	Cross-striped cabbageworm
Cardoni	Parsley	Diamondback moth**
Carrots	Parsnips	European corn borer
Cauliflower	Peas	Green cloverworm
Celeriac	Peppers	Imported cabbageworm
Celery	Potatoes	Melonworm
Chick peas	Pumpkins	Omnivorous leafroller
Chicory	Radishes	Pickleworm
Chinese cabbage	Rutabaga	Rindworm complex
Collards	Salsify	Saltmarsh caterpillar
Cucumber	Shallots	Soybean looper
Cucurbits	Soybean foliage	Tobacco budworm
Dry bulb onions	Spinach	Tomato fruitworm
Escarole	Squash	Tomato hornworm
Endive	Sugar beets	Tomato pinworm
Garlic	Sweet potatoes	Velvetbean caterpillar
Green onions	Swiss chard	Yellowstriped armyworm*
Greens: Beets, China, Dandelion, Mustard, Turnip	Tomatoes	
Horseradish	Turnips	
Kale		
Kohlrabi		
Rate/Acre: 0.5 - 2.0 pounds		
* Recommended rate is 1.0 - 1.5 pounds/acre unless tank-mixed with contact insecticide.		
** CRYMAX will control Bt resistant and susceptible diamondback moth.		

II. HERBS AND SPICES		
Crop such as:		Insect Pest ^c
Basil		Alfalfa looper
Chives		Armyworm
Cilantro		Diamondback moth
Dill		European corn borer
Oregano		Green cloverworm
Peppermint		Imported cabbageworm
Thyme		Loopers
		Saltmarsh caterpillar
Rate/Acre: 0.5 - 2.0 pounds		

leaf 7

III. PASTURE AND HAY CROPS

Crop such as:	Insect Pest
Alfalfa (hay & seed) Pasture (grasses & hay) Silage	Alfalfa caterpillar Armyworm Beet armyworm* European skipper Loopers* Webworm Yellowstriped armyworm*

Rate/Acre: 0.5 - 2.0 pounds

* Product should be applied when early instar larvae first appear. If infestation persists, make a second application 7-10 days later. Combination of CRYMAX with contact insecticide is recommended for control of 4th and 5th instar larvae.

IV. FRUIT, NUT AND VINE CROPS

Crop such as:	Insect Pest	
Pome and Stone	Cankerworm (Spring & Fall)	Pandemis leafroller
Fruit Trees:	Cherry fruitworm	Peach twig borer
Apples	Eastern tent caterpillar	Redbanded leafroller
Apricots	Fall webworm	Redhumped caterpillar
Cherries	Fruitree leafroller	Tortrix moth (Orange and Garden)
Nectarines	Green fruitworm	Tufted apple budmoth
Peaches	Gypsy moth	Variogated leafroller
Pears	Navel orangeworm	Walnut caterpillar
Plums	Obliquebanded leafroller	Western tent caterpillar
Prunes	Omnivorous leafroller	
Quince	Oriental fruit moth	
Nut Trees:	Citrus cutworm	Omnivorous leafroller
Almonds	Filbert leafroller	Pecan nut casebearer
Chestnuts	Filbert webworm	Peach twig borer
Filberts	Fruitree leafroller	Redhumped caterpillar
Pecans	Hickory shuckworm	Roughskinned cutworm
Pistachios	Navel orangeworm	Western tent caterpillar
Walnuts	Obliquebanded leafroller	
Citrus:	Amorbia	Omnivorous leafroller
	Citrus cutworm	Orangedog
	Fruitree leafroller	
Small Fruit and Berries:	Achema sphinx moth	Omnivorous looper
Blackberries	Armyworms	Tobacco budworm
Blueberries	Blackheaded fireworm	
Boysenberries	Blueberry leafroller	
Cranberries	Cranberry girdler	
Currants	Fruitree leafroller	
Longanberries	Grape berry moth	
Raspberries	Gypsy moth	
Strawberries	Loopers	
	Obliquebanded leafroller	
Grapes:	Grape berry moth	Omnivorous leafroller
	Cherry fruitworm	Orange tortrix
	Grape leafroller	Saltmarsh caterpillar
	Grapeleaf skeletonizer	Yellowstriped armyworm
	Green fruitworm	
Tropical and Other Fruit:	Amorbia	Omnivorous leafroller
Avocados	Loopers	Omnivorous looper
	Orange tortrix	Spanworm
Bananas	Banana skipper	
Kiwi	Omnivorous leafroller	
Persimmons	Citrus cutworm	Omnivorous leafroller
Pomegranate	Fall webworm	Redhumped caterpillar
	Filbert webworm	Tent caterpillar
Pineapple	Gummosos-Batrachedra commosae	
	Thecla-Thecla basilides	
Tropical fruits	Hornworms	Loopers
	Leafrollers	Omnivorous leafroller

Rate/Acre: 0.5 - 2.0 pounds

V. FIELD CROPS

Crop such as:	Insect Pest	
Canola/ Rape Seed Evening Primrose Meadow foam	Armyworm Diamondback moth Imported cabbageworm Loopers	
Corn (Field, Sweet, Popcorn, Seed)	Armyworm European corn borer Southwestern corn borer	
Cotton*	Beet armyworm** Bollworm** Cabbage looper Cotton leaf perforator	Saltmarsh caterpillar Soybean looper Tobacco budworm Yellowstriped armyworm**
Hops	Armyworm Loopers Obliquebanded leafroller	Omnivorous leaftier Spotted cutworm
Jojoba	Looper (<i>Anacamptodes</i> spp.)	
Peanuts	Green cloverworm Loopers	Podworm Velvetbean caterpillar
Rice	Armyworm Green cloverworm Loopers	Saltmarsh caterpillar Velvetbean caterpillar
Safflower	Armyworm** Loopers	Saltmarsh caterpillar
Small Grains (Barley, Oats, Rye, Wheat, etc.)	Armyworm** Loopers	
Sorghum	European corn borer Saltmarsh caterpillar	Velvetbean caterpillar
Soybeans	Green cloverworm Soybean looper	Velvetbean caterpillar
Sunflowers	Banded sunflower moth Beet armyworm** Headmoth	Loopers Sunflower moth
Tobacco	Tobacco budworm Tobacco hornworm Loopers	

Rate/Acre: 0.5 - 2.0 pounds

* Use CRYMAX at 0.25 lb/acre to control light to moderate populations of newly hatched tobacco budworm and bollworm in integrated pest management programs. Repeat treatments at four to five day intervals or as long as necessary until results are acceptable. Ovicides or synthetic pyrethroids can be combined with CRYMAX in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

** Combination of CRYMAX with a contact insecticide is recommended for infestations that include 4th and 5th instar larvae.

