

PM90

55638-8

1.85

Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 2-28-95



United States
Environmental Protection Agency
Washington, DC 20460

Registration
 Amendment
 Other

OPP Identifier Number
222400

Application for Pesticide - Section I

1. Company/Product Number 55638-8	2. EPA Product Manager Janet Andersen	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Cutlass WP Bioinsecticide	PM#	
5. Name and Address of Applicant (Include ZIP Code) Ecogen Inc. 2005 Cabot Blvd. West Langhorne, PA 19047 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Reduction in REI as per PR Notice 95-3

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
				<input checked="" type="checkbox"/> Paper	<input type="checkbox"/> Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 5 lbs.		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name David L. Olson	Title Director, Regulatory Affairs	Telephone No. (include Area Code) 215-757-1590
2. Signature 		3. Title Director, Regulatory Affairs
4. Typed Name David L. Olson		5. Date October 23, 1995
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)

Cutlass® wettable powder bioinsecticide is a biological insecticide for the control of lepidopteran pests.

Active Ingredient:

<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i> strain EG2371	
Lepidopteran active toxin	10.00%
Inert Ingredients	90.00%
TOTAL	100.00%
1.6 oz. active ingredient per pound	

CAUTION

KEEP OUT OF REACH OF CHILDREN

STATEMENT OF PRACTICAL TREATMENT

If Swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If Inhaled: Remove to fresh air. Get medical attention.

If In Eyes: Flush with plenty of water. Call a physician if irritation persists.

If On Skin: Wash with soap and water.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled. Avoid breathing dust or spray mist. Harmful if swallowed. Causes eye irritation. Avoid contact with skin, eyes or clothing. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

Personal Protective Equipment (PPE):

- Applicators and other handlers must wear:
- Long sleeved shirt and long pants
 - 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.

User Safety Recommendations

User should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters.

STORAGE AND DISPOSAL

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

Storage: Store in a cool, dry place inaccessible to children.

Pesticide Disposal: Do not contaminate water when disposing of equipment washwaters. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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.

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, shoes plus socks.



Ecogen Inc.
2005 Cabot Blvd. West, P.O. Box 3023
Langhorne, PA 19047-3023
215/757-1590 or 800/220-2135

EPA REG. No. 55638-8
EPA Est. Nos. 769-GA-1₍₀₃₎, 42761-MS-1₍₀₃₎, 37429-GA-1₍₀₃₎,
37429-GA-2₍₀₀₎
(Subscript refers to last 2 digits of lot number on container.)
Net Contents: 5 U.S. Pound Bag



Preharvest Interval: CUTLASS 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 CUTLASS, larvae will cease to feed, but may remain alive on foliage for several days before disappearing. Immediately after ingestion of CUTLASS, larvae begin to move slowly, become discolored, shrivel and blacken prior to death.

MIXING INSTRUCTIONS

CUTLASS 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 CUTLASS. Continue agitation. Add remainder of water and other spray materials and agitate until mixed. Maintain suspension while loading and spraying. Do not mix more CUTLASS than can be used in a 12-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** and these guidelines:

APPLICATION GUIDELINES

Pest category	Pest Pressure (number of larvae/plant)			
	Low ¹ (<0.3)	Moderate ² (0.3-1.0)	High ³ (1.0-5.0)	Extreme ⁴ (>5.0)
	Pounds of Product to be Applied per Acre			
Category 1	1.5	2.0	2.5	2.5
Category 2	1.0	1.5	2.0	2.5
Category 3	1.0	1.0	1.5	2.0

¹Recommended spray interval of 7-10 days.

²Recommended spray interval of 6-8 days.

³Recommended spray interval of 4-6 days.

⁴Recommended spray interval of 3-5 days.

Category 1 Pests include: artichoke plume moth, navel orangeworm, oriental fruit moth, tomato fruitworm (also called bollworm and corn earworm), tufted apple budmoth.

Category 2 Pests include: Amorbis, armyworms, cabbage looper, citrus cutworm, diamondback moth, leafrollers, melonworm, peach twig borer, pickleworm, soybean looper, tomato pinworm, tobacco budworm and tortrix moth.

Category 3 Pests include: all caterpillar pests shown in the APPLICATION RATE TABLE, except those shown in Categories 1 and 2.

For crops such as Fruits, Nuts and Vines, applications are often timed to stage of development and recommendations from local Extension personnel should always be followed.

APPLICATION INSTRUCTIONS

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

- Make applications when larvae are still small (early instars) 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.
- 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 (see APPLICATION GUIDELINES for selection of rates and intervals).
- Applications should be repeated at an interval sufficient to maintain control, depending upon plant growth, insect pressure and weather conditions after spraying. (Refer to APPLICATION GUIDELINES)
- For ground applications, use a minimum spray volume of 5 gallons per acre. For aerial applications, use a minimum spray volume of 2 gallons per acre.
- Local conditions may affect the use of CUTLASS. 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 3 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

Combinations of CUTLASS 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, an approved spreader/sticker is strongly recommended for hard-to-wet crops such as cole crops.
- Feeding stimulants may improve performance. Consider using feeding stimulants in situations of heavy worm pressure, inadequate coverage, or dense crop canopy.

APPLICATION RATE TABLE

I. VEGETABLES & COLE CROPS (Fresh and Processed)

Crop such as:		Insect Pest
Artichokes	Napa	Amyworms
Arugala	Okra	Artichoke plume moth
Asparagus	Onions	Beet armyworm
Beans	Parsley	Cabbage
Beets	Parsnips	budworm
Bok Choy	Peas	Cabbage looper
Broccoli	Peppers	Cabbage
Brussels sprouts	Potatoes	webworm
Cabbage	Pumpkins	Celery leaflier
Cardoni	Radishes	Corn earworm
Carrots	Rutabaga	Cross-striped cabbageworm
Cauliflower	Salsify	Diamondback moth
Celeriac	Shallots	European corn borer
Celery	Soybean foliage	Fall armyworm
Chick peas	Spinach	Green
Chicory	Squash	cloverworm
Chinese cabbage	Sugar beets	Imported cabbageworm
Collards	Sweet potatoes	Melonworm
Cucumber	Swiss chard	Omnivorous leafroller
Cucurbits	Tomatoes	Pickleworm
Dry bulb onions	Turnips	Rindworm complex
Eggplants	Watercress	Saltmarsh caterpillar
Escarole		Soybean looper
Endive		Tobacco budworm
Garlic		Tomato fruitworm
Green onions		Tomato
Greens (Beets, China, Dandelion, Mustard, Turnip)		hornworm
Horseradish		Tomato pinworm
Kale		Velvetbean caterpillar
Kohlrabi		Yellowstriped armyworm
Leeks		
Lentils		
Lettuce (Head, Leaf, Romaine)		
Malanga		
Melons (Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc.)		

Rate/Acre: 1.0 - 2.5 pounds

II. HERBS & SPICES

Crop such as:	Insect Pest
Basil	Armyworms
Chives	Diamondback moth
Cilantro	European corn borer
Dill	Green cloverworm
Oregano	Imported cabbageworm
Peppermint	Loopers
Thyme	Saltmarsh caterpillar

Rate/Acre: 1.0 - 2.5 pounds

III. PASTURE & HAY CROPS

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

Rate/Acre: 1.0 - 2.5 pounds

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

IV. FRUIT, NUT & VINE CROPS

Crop such as:	Insect Pest	Rate/Acre
Pome and Stone Fruit Trees: Apples Apricots Cherries Nectarines Peaches Pears Plums Prunes Quince	Cankerworm (Spring & Fall) Eastern tent caterpillar Fall webworm Fruittree leafroller Gypsy moth Navel orangeworm Omnivorous leafroller Oriental fruit moth Peach twig borer Redbanded leafroller Redhumped caterpillar Tortrix moth (Orange and Garden) Tufted apple budmoth Variegated leafroller Walnut caterpillar	1.0 - 2.5 pounds
Nut Trees: Almonds Chestnuts Filberts Pecans Walnuts	Citrus cutworm Filbert leafroller Filbert webworm Navel orangeworm Oblique banded leafroller Peach twig borer Roughskinned cutworm	1.0 - 2.5 pounds
Citrus	Amorbia Citrus cutworm Fruittree leafroller Orangedog	1.0 - 2.5 pounds
Small Fruit and Berries: Blackberries Blueberries Cranberries Currants Raspberries Strawberries	Acherna sphinx moth Armyworms Blueberry leafroller Fruittree leafroller Grape berry moth Gypsy moth Loopers Oblique banded leafroller Tobacco budworm	1.0 - 2.5 pounds
Grapes	Grape berry moth Cherry fruitworm Grape leafroller Grapeleaf skeletonizer Green fruitworm Omnivorous leafroller Orange tortrix Saltmarsh caterpillar	1.0 - 2.5 pounds
Tropical and Other Fruit: Avocados	Amorbia Loopers Orange tortrix Omnivorous leafroller Omnivorous looper Spanworm	1.0 - 2.5 pounds
Bananas	Banana skipper	1.0 - 2.0 pounds
Kiwi	Omnivorous leafroller	1.5 - 2.5 pounds
Persimmons Pomegranate	Citrus cutworm Fall webworm Filbert webworm Omnivorous leafroller Redhumped caterpillar Tent caterpillar	1.0 - 2.5 pounds
Pineapple	Gummosis-Batrachedra commosae Thecla-Thecla basilides	1.0 - 2.0 pounds
Tropical fruits	Hornworms Leafrollers Loopers Omnivorous leafroller	1.0 - 2.5 pounds

V. FIELD CROPS

Crop such as:	Insect Pest:	Rate/Acre
Canola/Rape Seed Evening Primrose	Armyworms Diamondback moth Imported cabbageworm Loopers	1.0 - 2.5 pounds
Corn (Field, Sweet, Popcorn)	Armyworms European corn borer Southwestern corn borer	1.0 - 2.0 pounds
Cotton*	Beet armyworm Boltworm Cabbage looper Cotton leaf perforator Saltmarsh caterpillar Tobacco budworm	1.0 - 2.5 pounds
Hops	Armyworms Loopers Oblique banded leafroller Omnivorous leaf-tier Spotted cutworm	1.0 - 2.5 pounds
Jojoba	Looper (<i>Anacamp-</i> <i>todes spp.</i>)	1.0 - 2.5 pounds
Peanuts	Fall armyworm Green cloverworm Loopers Podworms Velvetbean caterpillar	1.0 - 2.5 pounds
Rice	Armyworms Green cloverworm Loopers Saltmarsh caterpillar Velvetbean caterpillar	1.0 - 2.5 pounds
Safflower	Armyworms Loopers Saltmarsh caterpillar	1.0 - 2.5 pounds
Small Grains (Barley, Oats, Rye, Wheat, etc.)	Armyworms Loopers	1.0 - 2.5 pounds
Sorghum	European corn borer Fall armyworm Saltmarsh caterpillar Velvetbean caterpillar	1.0 - 2.5 pounds
Soybeans	Green cloverworm Soybean looper Velvetbean caterpillar	1.0 - 2.5 pounds
Sunflowers	Banded sunflower moth Beet armyworm Headmoth Loopers Sunflower moth	1.0 - 2.5 pounds
Tobacco	Tobacco budworm Tobacco hornworm Loopers	1.0 - 2.5 pounds

VI. COMMERCIAL FLOWERS & ORNAMENTAL PLANTS

Crop such as:	Insect Pest
Bedding plants Flowers Greenhouse Ornamentals Vegetables	Armyworms Azalea moth Diamondback moth Ello moth (hornworm) lo moth Loopers Oleander moth Omnivorous leafroller Omnivorous looper Tobacco budworm

Rate/Acre: 1.0 - 2.5 pounds

VII. FOREST, SHADE TREE & NURSERY STOCK

Crop such as:	Insect Pest
Forest Shade trees Nursery trees	Bagworm Blackheaded budworm Browntail moth California oakworm Douglas fir tussock moth Elm spanworm Fall webworm Fruitree leafroller Greenstriped mapleworm Gypsy moth Jack pine budworm Mimosa webworm Pine butterfly Redhumped caterpillar Saddleback caterpillar Saddle prominent caterpillar Spring and Fall cankerworm Spruce budworm Tent caterpillar Tortrix Western tussock moth

Rate/Acre: 1.0 - 2.5 pounds

WARRANTY AND CONDITIONS OF SALE

Ecogen warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used in accordance with the directions on this label under normal conditions of use.

ECOGEN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

If this product is defective, Buyer's exclusive remedy shall be the replacement of the product, or if replacement is impracticable, refund of the purchase price. In no case will Ecogen be liable for incidental, consequential, or special damages resulting from the handling, storage or use of this product.

*Use CUTLASS to control light to moderate populations of newly hatched worms in integrated pest management programs. Repeat treatments at four to five day intervals or as long as necessary until results are acceptable. For control of cotton bollworm and tobacco budworm, ovicides or synthetic pyrethroids can be combined with CUTLASS 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.

Cutlass is a trademark of Ecogen Inc.
U.S. Patent No. 5,080,897
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