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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:

Date of Issuance:

62719-282

April 15, 1998

Term of Issuance: Unconditional

Name of Pesticide Product:

NAF-127

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Robert F. Bischoff
Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1054

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA sec. 3(c)(5). Once a pesticide is registered, however, it is not regarded as permanently acceptable. Registration does not eliminate the need for continual reassessment of pesticides. If the Agency determines that, at any time, additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under FIFRA section (3)(c)(2)(B).

1. Make the following label changes:

- a. Revise the EPA Registration Number to read, "EPA Reg. No. 62719-282".
- b. In the Environmental Hazards Statement, you may use either of the two following statements: "This pesticide is toxic to aquatic invertebrates" or "This pesticide is highly toxic to mollusks."

Signature of Approving Official:

For George LaRocca

Date:

APR 15 1998

c. On page 5 under "General Information", change "....granules (WDG) should be mixed...." to "....granules (WDG) must be mixed...."

d. In the Directions for Use on Cole Crops, delete the words "Including but not limited to." All possible crops for this crop group are already listed on your label.

2. Submit two copies of the revised final printed label for the record.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Bill Edwards

for George T. LaRocca
Product Manager 13
Insecticide Branch
Registration Division (7505C)

Enclosure

NAF-127

Naturalyte Insect Control

EPA Reg. No. 62719-XXX

ACCEPTED
with COMMENTS
in EPA Letter Dated

APR 15 1998

Registration Notes:

Proposed Labeling for Section 3 Registration.

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

62719-282

96 JUL -2 P 3:26

RECD EPA/OTF/DPD2

APR 15 1998

page 1

(Container Label)
(Logo) DowElancoUnder the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.62719-282**NAF-127****A naturalyte insect control product for control of worms and leafminers in apples and cole crops.**

Active Ingredients: spinosad (a mixture of spinosyn A and spinosyn D) 80 %
Inert Ingredients 20 %
Total 100 %

U.S. Patent No. 5,362,634

Precautionary Statements

Hazards to Humans and Domestic Animals**Keep Out of Reach of Children****CAUTION****PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

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

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

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.

First Aid**If in eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

96 JUL -2 P3:26

RECD EPA/OIP/DPD2

Environmental Hazards

This product is highly toxic to bees exposed to direct spray on blooming crops or other vegetation. Avoid use when bees are actively foraging. Protective information may be obtained from your Cooperative Agricultural Extension Service. This product is toxic to aquatic invertebrates. Do not apply directly to water, 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.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE) and User Safety Recommendations, and Directions for Use including Storage and Disposal.

Notice: Read the entire label before using. Use only according to label directions.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

EPA Reg. No. 62719-XXX
DowElanco, Indianapolis, IN 46268 U.S.A.

EPA Est. 00000-XX-00

Naturalyte Insect Control

Net Contents 2.5 lb

(Label Booklet)
(Logo) DowElanco

NAF-127

A naturalyte insect control product for control of worms and leafminers in apples and cole crops.

Active Ingredients: spinosad (a mixture of spinosyn A and spinosyn D) 80 %
Inert Ingredients 20 %
Total 100 %

U.S. Patent No. 5,362,634

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CAUTION

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(If you do not understand the label, find someone to explain it to you in detail.)

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

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

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.

First Aid

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

Environmental Hazards

This product is highly toxic to bees exposed to direct spray on blooming crops or other vegetation. Avoid use when bees are actively foraging. Protective information may be obtained from your Cooperative Agricultural Extension Service. This product is toxic to aquatic invertebrates. Do not apply directly to water, 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.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use before applying.

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.

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 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

Storage and Disposal

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

Storage: Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

Disposal: Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General Information

NAF-127 is a naturalyte insect control product for control of lepidopterous larvae (worms or caterpillars) and leafminers in apples and cole crops. NAF-127 water dispersible granules (WDG) should be mixed with water and applied with aerial or ground equipment equipped for conventional insecticide spraying.

must

General Use Precautions

Chemigation: Do not apply through any type of irrigation equipment.

Integrated Pest Management (IPM) Programs

NAF-127 is recommended for IPM programs in apples and cole crops. NAF-127 should be applied when field scouting indicates target pest densities have reached the economic threshold. Other than reducing the target pest species as a food source, NAF-127 does not have a significant impact on certain parasitic insects or the natural predaceous arthropod complex in these cropping systems, including big-eyed bugs, ladybird beetles, flower bugs, lacewings, minute pirate bugs, damsel bugs, assassin bugs, predatory mites or spiders. The feeding activities of these beneficial arthropods will aid in the extended natural control of other insects and reduce the likelihood of secondary pest outbreaks for which additional insecticide treatments may be needed. If NAF-127 is tank mixed with any insecticide that reduces its selectivity in preserving beneficial predatory insects, then the full benefit of NAF-127 to your IPM program may be reduced.

Insecticide Resistance Management (IRM)

Any insect control agent will become less effective over time if target insects develop resistance to its mode of action. Adherence to the following IRM strategy will help to ensure the prolonged usefulness of NAF-127 and conventional insecticides. Additional information on IRM strategies can be obtained from the Insecticide Resistance Action Committee (IRAC).

- Do not use any insect control product on consecutive generations of insects. However, multiple applications to reduce a single insect generation below the economic threshold are permitted. If uncertain of the generation cycle, Do Not apply more than three consecutive applications or use continuously for more than 30 days. Rotate to a different class of insect control product with a different mode of action or use no treatment for the next generation or 30 days if the generation cycle is not known.
- Do not use less than labeled rates of any insect control product when applied alone or in tank mixtures.
- Target applications against small larvae and eggs when possible.
- Always consult with your local agricultural specialist or DowElanco representative for guidance and information on area resistance management programs.
- Include multiple tactics (e.g. cultural or biological controls) within in an Integrated Pest Management Program.

Mixing

Mixing NAF-127 Alone: Fill the spray tank with water to 1/4 to 1/3 of the total spray volume required. Start agitation and add the required amount of NAF-127. Continue mixing and agitation while filling the spray tank to the required spray volume. Maintain sufficient agitation during application to ensure uniformity of the spray mix. Do not allow water or spray mixture to back-siphon into the water source.

Tank Mixing: When tank mixing NAF-127 with other materials, a compatibility test (jar test) using relative proportions of tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

Mixing Order for Tank Mixes: Fill the spray tank with water to 1/4 to 1/3 of the total spray volume required. Start agitation. Add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for dry flowable products.

Add different formulation types in the following order:

1. Water dispersible granules and NAF-127.
2. Wettable powders
3. Aqueous suspensions

Maintain agitation and fill spray tank to 3/4 of total spray volume. Then add :

4. Emulsifiable concentrates and water-based solutions.
5. Spray Adjuvants.

Finish filling the spray tank. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose..

Premixing: Dry and flowable formulations including NAF-127 may be premixed with water (slurried) and added to the spray tank through a 20-35 mesh screen. This procedure assures good initial dispersion of these formulation types.

Application

Proper application techniques help ensure thorough spray coverage and correct dosage necessary to obtain optimum control of insect pests. The following recommendations are provided for ground and aerial application of NAF-127. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage of NAF-127.

Ground Application

Use power-operated ground spray equipment calibrated to provide thorough coverage of the target crop. Orient the boom and nozzles to obtain uniform crop coverage. Under certain conditions, drop nozzles may be required to obtain uniform coverage. Use flat fan or disc-core hollow cone nozzles suitable for insecticide spraying. Follow manufacturer's recommendations for ideal nozzle spacing and spray pressure and minimize boom height to optimize uniformity of coverage and maximize deposition (optimize on-target deposition) to reduce drift.

Orchard Applications

Applied As A Dilute spray: This application method is based on the premise that all plant parts are thoroughly wetted, to the point of runoff, with spray solution. To determine the number of gallons of dilute spray per acre required in your apple orchard contact your state agricultural experiment station, certified pest control advisor, or extension specialist for assistance.

Concentrate spray applications: This application method is based on the premise that all the plant parts are evenly covered with spray solution but not to the point of runoff as with a dilute spray. Instead, a lower gallonage of water is used with the same amount of NAF-127 per acre as in the dilute spray.

Aerial Application

Apply in a total minimum spray volume of 2 gallons per acre (or 10 gallons per acre in the case of tree or orchard crops) using nozzle configurations which will provide a median droplet size of 200-300 microns (example D4-D6 or 6504-6508 nozzles). Recommended nozzle angle is 0 degrees straight back to 45 degrees down. Boom length must be less than 75% of wing or rotor span. Use minimum safe application height, (should not exceed 12 feet above target). Use swath markers or flagging. The aircraft boom nozzle configurations used should be patterned previously (e.g., at NAAA Fly-In) for both crosswind and near parallel winds. If parallel wind application must be made, swath width should be adjusted downward. Use some swath adjustment (offset) to compensate for increasing crosswinds. Do not apply in dead calm and preferably only when wind speed is between 2 - 10 mph. Under conditions of low humidity and high temperatures, adjust spray volume and droplet size upward. Insect control by aerial application may be less than control by ground application because of less coverage.

Approved Uses

Apples

Pests and application rates : Use the following table and select the higher application rate when pest pressure is high or the tree row volume of apple foliage exceeds 429,000 cubic feet per acre or is a 300 gallon dilute spray per acre or greater orchard.

Pests	Rate Per Acre†		Rate Per 100 Gal of Water Dilute††
	Pounds Active	Ounces of Product	Ounces of Product
Leafminers Spotted tentiform Western tentiform	.06 - .16	1.2 - 3.2	.3 - .8
Leafrollers Oblique-banded Pandemis Tufted apple budmoth	.09 - .16	1.8 - 3.2	.4 - .8

† The amount of NAF-127 per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray per acre.

†† Dilute sprays are sprayed to runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

Application Timing: Optimal timing for **leafminers** and **leafrollers** may vary between species and geographic location. For **leafminers**, monitor the moth flights and infestation densities of both the sap-feeding and tissue-feeding stage. For **leafrollers**, monitor the moth flights and the infestation densities of the larval stages. Repeat application as necessary to maintain control. Consult with your DowElanco representative, state agricultural experiment station, certified pest control advisor or extension specialist for specific application timings in your area.

Restrictions:

- Do not apply more than 3.2 ounces of NAF-127 (0.16 lb of spinosad) per acre per application regardless of tree row volume or more than a total of 9 ounces of NAF-127 (0.45 lb of spinosad) per acre per year.
- **Preharvest Interval:** Do not apply closer than 7 days before harvest.

Cole Crops

Including but not limited to: Broccoli, Chinese Broccoli, Broccoli raab, Brussels sprouts, Cabbage, Chinese Cabbage (bok choy), Chinese Cabbage (napa), Cauliflower, Cavalo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Chinese Mustard Cabbage (gai choy) and Rape Greens.

Pests and Application Rates for Foliar Application:

Pests	Rate per Acre	
	Pounds Active	Ounces Product
Diamond Back Moth	.023-.045	0.46 - 0.9
Imported Cabbage Worm, Cabbage Looper	.045 - .09	0.9 - 1.8
Armyworms (including beet armyworm) Leafminers	.067-.13	1.34 - 2.6

Crop-specific Application Recommendations:

Application Timing: Use NAF-127 at the dosages indicated by application as a foliar spray to control pests in cole crops. Heavy infestations may require repeat applications but follow resistance management guidelines. Treat when pests appear, targeting eggs at hatch or small larvae. Consult your DowElanco representative, extension service specialist, certified crop advisor or your state agricultural experiment station for any additional area use recommendations for your area.

Restrictions:

- Do not apply more than a total of 0.45 lbs of spinosad active ingredient per acre per season or make the last spray application closer than 1 day before harvest.
- Do not apply to seedling crops grown for transplant within a greenhouse or shade house.

Warranty Disclaimer

DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DowElanco MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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EPA Accepted ___/___/___