


) 70464-3

10/13/2000

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 <p>U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Biopesticides and Pollution Prevention Division (7511C) 1200 Pennsylvania Avenue NW Washington, DC 20460</p> <p>NOTICE OF PESTICIDE: <u> X </u> Registration <u> </u> Reregistration (under FIFRA, as amended)</p>	EPA Reg. Number: 70464-3	Date of Issuance: OCT 13 2000
	Term of Issuance: Conditional	
	Name of Pesticide Product: ELEXA-4™	
Name and Address of Registrant (include ZIP Code): Safescience, Inc. c/o Health & Environmental Horizons, Ltd. 2851 South Heaven Road Annapolis, MD 21401		
<p>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p> <p>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.</p> <p>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.</p> <p>This product is conditionally registered for a period of 6 months in accordance with FIFRA Sec. 3(c)(7)(A) provided you:</p> <ol style="list-style-type: none"> 1. Submit Primary Skin Irritation data within 90 days of the date of issuance of this notice 2. Make the following label changes listed below before you release the product for shipment: <ol style="list-style-type: none"> a. Add the phrase, EPA Registration No. 70464-3 to the label b. Add the appropriate the appropriate Establishment number to the label 3. Submit five(5) copies of the revised final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling. 		
Signature of Approving Official: (See second page for signature) <i>JZA</i>	Date: 10-13-00	

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If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

Sincerely,



Janet L. Andersen, Director
Biopesticides and Pollution
Prevention Division (7511C)

ACCEPTED
with COMMENTS
in EPA Letter Dated

OCT 13 2000

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
70464-3

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ELEXA 4™

PLANT DEFENSE BOOSTER

ACTIVE INGREDIENT:		% w/w
Chitosan (poly-D-glucosamine)*		4.00%
OTHER INGREDIENTS:		96.00%
Total		100.0%

* Contains 0.32 pounds of active ingredient per gallon of product (equivalent to 38 grams of active ingredient per liter of product)

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

FIRST AID STATEMENTS

IF ON SKIN or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for 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.

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 cleaning equipment or disposing of equipment washwaters. Do not allow runoff into lakes, streams, ponds or public waterways.

Net Contents: 2.5 Gallons

EPA Reg. No. 70464-G
EPA Est. No. 070464-TX-001

(Side Panel)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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, use detergent and hot water. Keep and wash PPE separately from other laundry.

EMERGENCY INFORMATION

For spill, leak, fire, exposure, or accident call CHEMTREC at 1-800-424-9300.

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.

MIXING AND APPLICATION INSTRUCTIONS

ELEXA-4 is an aqueous product. Mix ELEXA-4 with clean water at the rate shown in the use directions below. To prepare the solution, add ½ the total amount of water, add the desired volume of ELEXA-4 and complete with water to the total volume required. It is also highly recommended that a surfactant (one cleared for food use in accordance with 40 CFR 180.1001) also be added. The pH of the final solution should be between 5.7 and 6.3 for optimum results.

Early-season Applications - In early stages of the plant's growth ELEXA-4 can be applied in lower volumes of water. This stage occurs from planting, or bud break in annuals, through early stages of leaf growth and expansion. For lower volumes of spray, such as 25 gallons per acre (gpa), ELEXA-4 can be diluted in water in a ratio as low as 1 part ELEXA-4 to 19 parts water (a final tank mix ratio of 1:20). For higher spray volumes up to 100 gpa, ELEXA-4 can be diluted in water in a ratio of 1 part ELEXA-4 up to 39 parts water (a final tank mix ratio of 1:40). As an example, use 2.5 gallons of ELEXA-4 in 97.5 gallons of water for a final spray volume of 100 gpa. The rate of ELEXA-4 can be increased to the concentrations shown below if disease pressure becomes severe. Apply ELEXA-4 on a 7-14 day schedule depending upon disease pressure.

Mid-season Applications - During mid-season, application rates of ELEXA-4 can be increased as the amount of water applied increases. During this stage, plants are growing actively with continued leaf expansion, but prior to the later stages of the plant's development. The ELEXA-4 rate will vary depending upon the type of plant, spray equipment used and grower's standard practices. ELEXA-4 can be diluted in water in a ratio of between 1 part ELEXA-4 and 19 to 39 parts water. As an example, it is generally recommended that ELEXA-4 be applied at a rate of 2.5 gallons in 100 gallons of final spray volume (2.5% ELEXA-4 or 0.1% a.i. per acre on a v/v basis). As in early-season applications, higher rates of ELEXA-4 should be considered when disease pressure is highest, e.g. up to 5.0 gallons in 100 gallons of final spray volume. Apply ELEXA-4 on a 7-14 day schedule depending upon disease pressure.

Late-season Applications - During the latter part of the growing season when the plant's canopy is fully expanded and it is more difficult to get full coverage, higher volumes of water may be needed. ELEXA-4 can be diluted in water in a ratio of between 1 part ELEXA-4 and 29 to 39 parts water. Again, higher rates should be used if disease pressure is high. The maximum rate recommended during late-season applications is 7.5 gallons of ELEXA-4 in 300 gallons of final spray volume, or 1 part ELEXA-4 in 39 parts water. Apply ELEXA-4 on a 7-14 day schedule depending upon disease pressure.

Special Application Rate Table for use on Grapes¹

Season and Growth Stage of Plant	Recommended Final Spray Volume (gpa)	Recommended Volume of ELEXA In Tank (gpa)	Ratio of ELEXA to water in Final Spray Tank	Suggested Amount of A.I. per acre (lbs)
Early season (young plants with limited growth)	25 to 100	1.25 to 2.5	1:20 to 1:40	0.4 to 0.8
Mid-season (plants in active growth stage)	75 to 150	2.5 to 3.75	1:20 to 1:40	0.8 to 1.2
Late-season (canopy of plant fully expanded)	125 to 300	3.0 to 7.5	ca 1:40	0.96 to 2.4

¹The general concept used in calculating rates to be applied on grapes can also be used on other crops below.

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Crops, Rates and Diseases which ELEXA 4 Provides Protection Against

Crop Groups	Rate of ELEXA	Protection Against Diseases Such as:	Remarks (also refer to Mixing and Application Instructions)
<u>Tree Fruit, such as:</u> Apples Cherries Grapefruit Lemons Limes Nectarines Oranges Peaches Pears Plums Prunes Tangerines	1.25 - 7.5 gal/acre (0.4 - 2.4 lbs a.i./acre) in Final spray volume of 25 to 300 gal*/acre *Application rate depends upon tree size, size of leaves and spray equipment used.	Powdery Mildew (various species)	Apply diluted spray at a rate of at least 25 gal/acre using conventional spray equipment. <u>Apply ELEXA before disease symptoms appear.</u> Repeat applications on 7-14 day intervals.
<u>Vegetables, such as:</u> Beans Carrots Cucumbers Eggplant Garlic Ginseng Herbs Leeks Lentils Lettuce Melons Onions Peas Peppers Potatoes Pumpkins Squash Strawberries Sweet Potatoes Tomatoes	1.25 - 5.0 gal/acre (0.4 - 1.6 lbs a.i./acre) in Final spray volume of 25 to 200 gal*/acre *Application rate depends upon types of plant, growth stage and spray equipment used.	Powdery Mildew (various species) Downy Mildew (various species) Early Blight, Late Blight (Phytophthora infestans) Gray Mold (Botrytis cineria)	Apply diluted spray at a rate of at least 25 gal/acre using conventional spray equipment. <u>Apply ELEXA before disease symptoms appear.</u> Repeat applications on 7-10 day intervals.
Grapes	1.25 - 7.5 gal/acre (0.4 - 2.4 lbs a.i./acre) in Final spray volume of 25 to 300 gal*/acre *Application rate depends upon growth size, size of leaves and spray equipment used.	Powdery Mildew (various species) Downy Mildew (various species)	Apply diluted spray at a rate of at least 25 gal/acre using conventional spray equipment. <u>Apply ELEXA before disease symptoms appear.</u> Repeat applications on 7-14 day intervals. Higher final spray volumes and higher rates of ELEXA-4 are recommended on table grapes as plant canopies tend to be larger than on wine grapes.

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<p><u>Greenhouse and Nursery Plants, such as:</u> Potted plants Flowers (roses, etc) Vegetables Herbs Shrubs Fruit trees</p>	<p>1.25 - 5.0 gal/acre (0.4 - 1.6 lbs a.i./acre) in Final spray volume of 25 to 200 gal*/acre *Application rate depends upon type of plant, growth stage and spray equipment used.</p>	<p>Powdery Mildew (various species) Downy Mildew (various species) Gray Mold (Botrytis cineria)</p>	<p>Apply diluted spray at a rate of at least 25 gal/acre using conventional spray equipment. <u>Apply ELEXA before disease symptoms appear.</u> Repeat applications on 7 day intervals as needed.</p>
<p><u>Home Garden Use:</u> <u>Vegetables</u> <u>Flowers</u> <u>Herbs</u> <u>Shrubs</u> <u>Fruit trees</u></p>	<p>1.25 - 5.0 gal/acre (0.4 - 1.6 lbs a.i./acre) in Final spray volume of 25 to 200 gal*/acre *Application rate depends upon type of plant, growth stage and spray equipment used.</p>	<p>Powdery Mildew (various species)</p>	<p>Apply diluted spray at a rate of at least 25 gal/acre using conventional spray equipment. <u>Apply ELEXA before disease symptoms appear.</u> Repeat applications on 7 day intervals as needed.</p>
<p><u>Turf, such as:</u> Bent grass Bermuda grass Bluegrass Centipede grass Dichondra Fescue Rye grass Wheat grass Zoysia grass St. Augustine</p>	<p>1.25 - 5.0 gal/acre (0.4 - 1.6 lbs a.i./acre) in Final spray volume of 25 to 200 gal*/acre *Application rate depends upon type of grass, growth stage and spray equipment used.</p>	<p>Powdery Mildew (various species) Leaf Spot Anthracnose</p>	<p>Apply diluted spray at a rate of at least 25 gal/acre using conventional spray equipment. <u>Apply ELEXA before disease symptoms appear.</u> Repeat applications on 7 day intervals as needed.</p>
<p><u>Grain crops, such as:</u> Barley Oats Rice Wheat</p>	<p>1.25 - 5.0 gal/acre (0.4 - 1.6 lbs a.i./acre) in Final spray volume of 25 to 200 gal*/acre *Application rate depends upon type of grain, growth stage and spray equipment used.</p>	<p>Sheath Blight Powdery Mildew (various species) Blast.</p>	<p>Apply diluted spray at a rate of at least 25 gal/acre using conventional spray equipment. <u>Apply ELEXA before disease symptoms appear.</u> Repeat applications on 7 day intervals as needed.</p>

HOME GARDEN USE

ELEXA-4 may be used as directed for home gardens. Prepare the spray mixture using one (1) part ELEXA-4 with nineteen (19) parts of water. Spray until plant runoff.

GREENHOUSE USE

ELEXA-4 may be used as directed for greenhouses. Prepare the spray mixture using one (1) part ELEXA-4 with nineteen (19) parts of water. Spray until plant runoff.

USE PRECAUTIONS

To prevent contamination of the dilute solution of ELEXA-4 by possible pesticides or other chemical residues in the spraying equipment, make sure that the equipment is thoroughly clean before and after use.

GENERAL

ELEXA-4 is a Plant Defense Booster. The active ingredient in ELEXA-4 is derived from natural carbohydrate sources. Providing spray coverage with ELEXA-4 is good, the natural defense system of the plant is enhanced and the plant, in turn, is protected against certain plant pathogens.

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:

- o Coveralls
- o Waterproof gloves
- o Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, and greenhouses. Do not enter treated area without protective clothing until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by disposal.

PESTICIDE STORAGE

Store in a dry place, out of direct sunlight, and away from food or feed.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Do not reuse empty container. Triple rinse (or equivalent), then offer for recycling, reconditioning or puncture and dispose of in a sanitary landfill, by incineration or by burning, if allowed by State and local authorities. If burned, stay out of smoke.

NOTICE OF WARRANTY

SafeScience Products, Inc. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with the label directions under normal conditions of use. SafeScience Products, Inc. makes no other express or implied warranties either of merchantability or fitness for a particular use. Handling, storage and use of the product by Buyer or User are beyond the control of SafeScience, Inc. and Seller. Risks such as ineffectiveness or other unintended consequences resulting from, but not limited to, failure to follow label directions will be assumed by the Buyer or User. In no case will SafeScience Products, Inc. or Seller be held liable for consequential, special or indirect damages resulting from the handling, storage or use of this product.

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

Manufactured in U.S.A. by:
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