FLUTIANIL GROUP U13 **FUNGICIDE** 



A fungicide for use on apples, cherries, cantalogues, cucumbers, grapes, squash, and strawberries for control of powdery mildew.

## ACTIVE INGREDIENT:

Flutianil: (2Z)-2-[[2-fluoro-5-(trifluoromethyl)

phenyl]thio]-2-[3-(2-methoxyphenyl)-2-

thiazolidinylidene]acetonitrile\*...... 4.7% 100.0%

**TOTAL** 

0.423 lbs flutianil/gal \*CAS No. 958647-10-4

EPA Reg. No. 11581-6-71711

(GM) (CB) EPA Est. No. 67545-AZ-1 70815-GA-001 39578-TX-1 superscript corresponds with lot number

# KEEP OUT OF REACH OF CHILDREN **WARNING - AVISO**

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

> See additional precautionary statements inside booklet

**NET CONTENTS:** 1 quart

NICHINO

Nichino America, Inc.

4550 Linden Hill Road, Suite 501

225100 Wilmington, DE 19808 03/18

888-740-7700

FIRST AID		
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.     Call a poison control center or	
If swallowed	doctor for treatment advice.  Call a poison control center or doctor immediately for treatment advice.  Have person sip a glass of water if able to swallow.  Do not induce vomiting unless told to by a poison control center or doctor.  Do not give anything to an unconscious person.	
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 inhaled	Move person to fresh air.     If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible.     Call a poison control center or doctor for further treatment advice.	

(continued)

# FIRST AID (continued)

## HOTLINE NUMBER

Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For non-emergency information concerning this product, call 1-800-348-5832. In case of fire or spills, information may be obtained by calling 1-800-424-9300.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING - AVISO

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, safety glasses). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

## Personal Protective Equipment (PPE)

Mixers, loaders, and other handlers must wear the following:

- · Long-sleeved shirt and long pants
- Socks
- Shoes
- · Chemical-resistant gloves
- Protective eyewear (goggles, face shield, or safety glasses)

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.

## **User Safety Recommendations**

- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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.

#### **ENVIRONMENTAL HAZARDS**

For terrestrial uses, 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 washwater or rinsate.

## 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 or pets 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 the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, 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 workers to enter treated areas during the restricted-entry interval (REI) of 12 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:

- Long-sleeved shirt and long pants
- Socks
- Shoes
- Chemical-resistant gloves
- Protective eyewear

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

## **USE INFORMATION**

GATTEN® fungicide is a fungicide for control of powdery mildew on the following specified agricultural crops: apples, cherries, cantaloupes, cucumbers. grapes, squash, and strawberries, GATTEN fungicide may be used in programs which are compatible with the principles of Integrated Pest Management (IPM) which include the use of disease resistant crop varieties, cultural practices, pest scouting, and disease forecasting systems which reduce unnecessary applications of pesticides. Flutianil, the active ingredient in GATTEN fungicide, is a new chemical class of fungicide of the thiazolidine group and belongs to FRAC mode of action Group U13. GATTEN fungicide is effective for strategic use in programs that attempt to minimize disease resistance to fungicides.

**GATTEN** fungicide can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control. Apply via the following ground application methods: airblast broadcast and ground boom broadcast. Aerial application is prohibited. Airblast broadcast would be best for apples, cherries, and grapes while ground boom broadcast is best for cucumber, squash, strawberries, and cantaloupe.

This product is intended for use by professional applicators.

## DIRECTIONS FOR GROUND SPRAY APPLICATION

Users must read, understand, and follow the label use rates and restrictions. Minimum label rates may

be used under low disease pressure conditions while maximum label rates and shortened specified spray intervals are recommended under high disease pressure. For application, determine the number of acres to be treated, the specified label use rate, and the spray volume per acre. Prepare only the amount of spray solution that is necessary to spray the measured acres. Calibrate spray equipment prior to use. For optimal disease control, use thorough spray coverage. Thorough spray coverage is a function of spray pressure, spray volume per acre, nozzle type and spacing, and application equipment speed. Calibrate spray equipment prior to use.

## **Row Crops**

Apply a minimum finished spray volume of 20 gallons per acre by ground unless otherwise directed under crop specific directions. For best results, it is important to obtain thorough and uniform spray coverage of the plant.

To clean the sprayer after use, drain and flush with water. Use rinsate on crop according to label instructions or dispose of in an approved manner (See STORAGE AND DISPOSAL).

## **Orchard and Vine Crops**

To achieve optimum disease control, it is important to obtain thorough and uniform spray coverage. Choose a finished spray volume appropriate for the size of tree or vine and amount of foliage which will provide thorough coverage throughout the canopy. Follow directions listed under crop specific directions.

To clean the sprayer after use, drain and flush with water. Use rinsate on crop according to label instructions or dispose of in an approved manner (See STORAGE AND DISPOSAL).

#### RESTRICTIONS

DO NOT apply via chemigation.

DO NOT apply via aerial application.

NOT for use in greenhouses.

DO NOT combine **GATTEN** fungicide in the spray tank with other pesticides, surfactants, or fertilizers unless prior use has shown the combination physically compatible, effective, and non-injurious under conditions of use. GATTEN fungicide is physically and biologically compatible with many registered pesticides, fertilizers or micronutrients. Contact your supplier or a local extension for advice when considering mixing GATTEN fungicide with other products. If you have no experience with the combination you are considering, you should conduct a test to determine physical compatibility. To do so, add the specified proportions of both chemicals with the same proportion of water as will be present in the chemical supply tank into a suitable container; mix thoroughly and allow to stand for five minutes. If the combination remains mixed, or can be readily remixed, the mixture should be physically compatible.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the

most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### ROTATIONAL CROPS DIRECTIONS

Any crop may be planted immediately after the last application.

#### SPRAY DRIFT DIRECTIONS

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. Where states have more stringent regulations, they must be observed.

# RESISTANCE MANAGEMENT RECOMMENDATIONS

Fields should be scouted prior to application to identify the disease that is present and to determine if the intended application may be effective. Fields should be scouted at the appropriate period after application to verify that the treatment was effective. For further information or to report suspected resistance, contact Nichino America http://www.nichino.net/contact-us/. You can also contact your pesticide distributor or university extension specialist to report resistance. If resistance is suspected, treat with an effective pesticide if available, having a different mode of action and/or use nonchemical means to best manage the pest.

For resistance management, **GATTEN** fungicide contains a Group U13 fungicide. Any fungal population may contain individuals naturally resistant to **GATTEN** fungicide and other Group U13 fungicides.

A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed. To delay fungicide resistance, take one or more of the following steps:

- Do not apply more than maximum number of applications for each labeled crop in the DIRECTIONS FOR APPLICATION table below and avoid consecutive sprays of GATTEN fungicide or other fungicides in the same group in a season.
- Use tank mixtures with fungicides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds as well as cultural, biological, and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications.
   Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.

## DIRECTIONS FOR APPLICATION

Apples		
Target Disease	Application Rate fl oz product/A (lb ai/A)	PHI
P. leucotricha	6.0 (0.0198) to	14
(powdery mildew)	8.0 (0.0264)	

#### Directions

- Use water volumes of 20 to 100 gallons per acre for concentrate sprays and 101 to 200 gallons per acre for dilute sprays.
- Repeat applications at 7 to 14- day intervals, depending on disease pressure.
- Apply to foliage during the fruiting stage using airblast ground equipment.

- Maximum Application Rate: 8.0 fl oz product/A (0.0264 lb ai/A)
- DO NOT apply more than 4 applications per year.
- DO NOT exceed a maximum of 0.16 lb ai per acre per year.
- DO NOT apply within 14 days of harvest.

Cantaloupes		
Target Disease	Application Rate fl oz product/A (lb ai/A)	PHI
G. cichoracearum (powdery mildew)	6.0 (0.0198) to 8.0 (0.0264)	0

- Use water volumes of 30 to 100 gallons per acre for sprays.
- Repeat applications at 7 to 14- day intervals, depending on disease pressure.
- Apply to foliage during flowering to the mature fruit stage using broadcast ground equipment.

- Maximum Application Rate: 8.0 fl oz product/A (0.0264 lb ai/A)
- **DO NOT** apply more than 5 applications per year.
- DO NOT exceed a maximum of 0.20 lb ai per acre per year.
- Crop can be harvested after test material has dried.

Cherries		
Target Disease	Application Rate fl oz product/A (lb ai/A)	PHI
P. clandestina (powdery mildew)	6.0 (0.0198) to 8.0 (0.0264)	3

- Use water volumes of 30 to 100 gallons per acre for concentrate sprays and 101 to 300 gallons per acre for dilute sprays.
- Repeat applications at 7 to 14- day intervals, depending on disease pressure.
- Apply to foliage during the fruiting stage using airblast ground equipment.

- Maximum Application Rate: 8.0 fl oz product/A (0.0264 lb ai/A)
- DO NOT apply more than 4 applications per year.
- DO NOT exceed a maximum of 0.16 lb ai per acre per year.
- DO NOT apply within 3 days of harvest.

Cucumbers (not for use in California)		
Target Disease	Application Rate fl oz product/A (lb ai/A)	PHI
G. cichoracearum (powdery mildew)	6.0 (0.0198) to 8.0 (0.0264)	0

- Use water volumes of 30 to 100 gallons per acre for sprays.
- Repeat applications at 7 to 14- day intervals, depending on disease pressure.
- Apply to foliage during seedling to the fruiting stage using broadcast ground equipment.

- Maximum Application Rate: 8.0 fl oz product/A (0.0264 lb ai/A)
- DO NOT apply more than 5 applications during each growing season.
- · Maximum of two growing seasons per year.
- DO NOT exceed a maximum of 0.20 lb ai per acre per season.
- Crop can be harvested after product has dried.

Grapes		
Target Disease	Application Rate fl oz product/A (lb ai/A)	PHI
E. necator (powdery mildew)	6.4 (0.0211)	14

- Use water volumes of 20 to 100 gallons per acre for concentrate sprays and 101 to 400 gallons per acre for dilute sprays.
- Repeat applications at 7 to 14- day intervals, depending on disease pressure.
- Apply to foliage during the fruiting stage using airblast ground equipment.

- Maximum Application Rate: 6.4 fl oz product/A (0.0211 lb ai/A)
- DO NOT apply more than 4 applications per year.
- DO NOT exceed a maximum of 0.16 lb ai per acre per year.
- DO NOT apply within 14 days of harvest.

Squash		
Target Disease	Application Rate fl oz product/A (lb ai/A)	PHI
G. cichoracearum (powdery mildew)	6.0 (0.0198) to 8.0 (0.0264)	0

- Use water volumes of 30 to 100 gallons per acre for sprays.
- Repeat applications at 7 to 14- day intervals, depending on disease pressure.
- Apply to foliage during seedling to crop maturity stage using broadcast ground equipment.

- Maximum Application Rate: 8.0 fl oz product/A (0.0264 lb ai/A)
- DO NOT apply more than 5 applications during each growing season.
- There is a maximum of two growing seasons per year allowed.
- DO NOT exceed a maximum of 0.20 lb ai per acre per season.
- Crop can be harvested after test material has dried.

Strawberries		
Target Disease	Application Rate fl oz product/A (lb ai/A)	PHI
P. aphanis (powdery mildew)	6.0 (0.0198) to 8.0 (0.0264)	0

- Use water volumes of 50 to 200 gallons per acre for sprays.
- Repeat applications at 7 to 14- day intervals, depending on disease pressure.
- Apply to foliage during the fruiting stage using broadcast ground equipment.

- Maximum Application Rate: 8.0 fl oz product/A (0.0264 lb ai/A)
- **DO NOT** apply more than 5 applications per year.
- DO NOT exceed a maximum of 0.20 lb ai per acre per year.
- Crop can be harvested after test material has dried.

# STORAGE AND DISPOSAL

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

**STORAGE:** Store product in a secure dry, cool, and well ventilated place. Store product in original container. Do not store for prolonged periods in direct sunlight.

PESTICIDE DISPOSAL: Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

# IMPORTANT: READ BEFORE USE

By using this product, user or buyer accepts the following conditions, warranty, disclaimer of warranties, and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be accurate and must be followed carefully. However, because of extreme weather and soil conditions, use methods, and other factors beyond the control of Nichino America, Inc. (NAI), it is impossible for NAI to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. To the extent consistent with applicable law, all such risks are assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MER-CHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of NAI is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law. NAI disclaims any liability whatsoever for incidental or consequential damages, including, but not limited to, liability arising out of breach of contract, express or implied warranty (including warranties of merchantability and fitness for a particular purpose), tort, negligence, strict liability, or otherwise.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT THE ELECTION OF NICHINO AMERICA, THE REPLACEMENT OF PRODUCT.

©2018 Nichino America, Inc. Gatten is a registered trademark of OAT Agrio Co., Ltd. Nichino America logo is a registered trademark of Nichino America, Inc.

Product of Japan
Manufactured by OAT Agrio Co., Ltd. for
Nichino America. Inc.

4550 Linden Hill Road, Suite 501 Wilmington, DE 19808 888-740-7700

> 20180306 03-13-2018



Flutianil: (2Z)-2-[[2-fluoro-5-(trifluoromethyl)phenyl]thio]-2-[3-(2-methoxyphenyl)-2-thiazolidinylidene]acetonitrile\*...... 4.7% OTHER INGREDIENTS:

.. 95.3% 100.0%

TOTAL 0.423 lbs flutianil/gal

\*CAS No. 958647-10-4

EPA Reg. No. 11581-6-71711 (GM)

EPA Est. No. 67545-AZ-1 70815-GA-001 superscript corresponds with lot number

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

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.)

#### FIRST AID

If in eves: Hold eve 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. Call a poison control center or doctor for treatment advice. If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person. 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 inhaled: Move person to fresh air, If person is not breathing, call 911 or an ambulance: then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. HOTLINE NUMBER: Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For non-emergency information concerning this product, call 1-800-348-5832. In case of fire or spills, information may be obtained by calling 1-800-424-9300.

See additional precautionary statements inside hooklet

NET CONTENTS: 1 quart

225100 03/18

**NICHINO** AMFRICA \*

Nichino America, Inc. 4550 Linden Hill Road Suite 501

Wilmington, DE 19808 888-740-7700