SePRO

Specimen Label

BUPROFEZIN	GROUP 16	INSECTICIDE

Talus® 70DF

Insect Growth Regulator

ACTIVE INGREDIENT:

Buprofezin
2-[(1,1-dimethylethyl)imino]tetrahydro-3-(1-methylethyl)-5-
phenyl-4*H*-1,3,5-thiadiazin-4-one **70.00%**
OTHER INGREDIENTS..... 30.00%
TOTAL 100.00%

Contains 0.70 lb. buprofezin per lb. of product

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
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 by mouth 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.
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 doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information on this pesticide product, including human health concerns and medical emergencies, call 1-800-535-5053.	
NOTE TO PHYSICIAN: There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.	

In case of fire or spills, information may be obtained by calling 1-800-535-5053.

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:
Long-sleeved shirt and long pants
Waterproof gloves
Shoes plus socks

STATEMENTS FOR CONTAMINATED PPE

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.

ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4–6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- 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 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 by cleaning of equipment or disposal of equipment washwaters.

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 requirement specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.

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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. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

For early entry into 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, wear:

- Coveralls
- Waterproof gloves
- Shoes plus socks

PRODUCT INFORMATION

Talus® 70DF insect growth regulator (hereafter referred to as Talus 70DF is effective against the nymphal stages of whiteflies, scales, psylla, mealybugs, planthoppers, and leafhoppers by inhibiting chitin biosynthesis, suppressing/inhibiting molting of immatures, suppressing oviposition of adults, and reducing viability of eggs. Talus is not an adulticide. Evidence of activity may be slower than typical contact insecticides as treated susceptible pests may remain alive on the plant for 3-7 days; however, pests have stopped feeding and any feeding damage during this time is typically very low.

Talus 70DF is a contact insecticide, so thorough spray coverage is essential. Apply by ground or air in sufficient water volume. Orient nozzles to ensure good coverage. Use of higher volume of water will ensure better coverage, especially under adverse conditions such as hot, dry weather, and/or a dense canopy. The entire field should be treated. Apply when economic infestations occur based on local information.

Not for Sale, Sale Into, Distribution, and or Use in Nassau and Suffolk Counties of New York State.

INSECTS CONTROLLED

Whiteflies: Ash whitefly, Bandedwinged whitefly, Greenhouse whitefly, Silverleaf whitefly, Sweetpotato whitefly

Mealybugs: Apple mealybug, Citrus mealybug, Comstock mealybug, Gill's mealybug, Grape mealybug, Longtailed mealybug, Madeira mealybug, Mexican mealybug, Obscure mealybug, Striped mealybug, Vine mealybug

Leafhoppers and Planthoppers: Brown planthopper, Cherry leafhopper, Eastern grape leafhopper, Glassy-winged sharpshooter, Potato leafhopper, Variegated leafhopper, Western grape leafhopper, White apple leafhopper

Pear Psylla

Scales

Armored Scales: Boisduval scale, Cactus scale, California red scale, Coconut scale, Fern scale, Florida red scale, Oystershell scale, San Jose scale, Walnut scale

Margarodid Scale: Cottony cushion scale

Soft Scales: Barnacle scale, Black scale, Brown soft scale, Citricola scale, European fruit lecanium scale, False oleander scale, Frosted scale, Hemispherical scale, Indian wax scale and other wax scales, Tessellated scale, White peach scale

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USE RESTRICTIONS

- Do not apply this product through any type of irrigation system.
- Do not apply this product in residential areas.
- Fogging applications are restricted to greenhouse uses, nursery ornamentals, field-grown ornamentals, and Christmas tree farms.
- Fogging is prohibited on orchards and vineyards.
- Do not apply this product to orchards/vineyards and typical field crops by mechanically pressurized handgun.
- Do not use anionic surfactants with this product.

ROTATIONAL CROP RESTRICTIONS

CROP	PLANTBACK TIMING
All crops registered for use with buprofezin	0 days following application
Cereal grains	30 days following application
All other crops	60 days following application

RESISTANCE MANAGEMENT

For resistance management, Talus 70DF contains a Group 16 insecticide. Any insect population may contain individuals naturally resistant to Talus 70DF and other Group 16 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Talus 70DF or other Group 16 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
- Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
- Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
- When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide~~/acaricides~~ use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor

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- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance contact your regional SePRO Corporation representative.

APPLICATION DIRECTIONS

Applications should be made immediately after the spray solution is prepared. Thorough spray coverage is essential for effective control. Applications may be made with high, low or ultra-low volume spray equipment that provides thorough coverage of the plant. Apply with properly calibrated spray equipment. For best results, apply when pest populations are beginning to build, before reaching economic thresholds. Consult your local agricultural advisor or state cooperative extension service, or regional SePRO Corporation representative for recommendations.

- To avoid contact with the treated area, begin by fogging area of greenhouse furthest from the entrance/exit walking backwards as the fog/spray is applied. Finish application at the entrance/exit of the greenhouse.

- For stationary fogging applications, leave the treatment area during application.

- For backpack sprayer and mechanically-pressurized-handgun applications: Apply by ground with 100 gallons of water per acre.

MIXING DIRECTIONS

Keep agitation running during filling and spraying operations. If spraying must be stopped before emptying the sprayer, resume agitation before spraying the remainder of the load. Mix only as much spray solution as can be sprayed within four hours. Storage and use of the previous day's spray mix may result in reduced activity.

Talus 70DF ALONE: Fill spray tank with ¾ of the amount of water needed for the intended application and then turn on agitation. Pour recommended amount of product on the surface of water in the spray tank. Add the balance of the water to the spray tank with agitation running.

Talus 70DF TANK MIXTURES: 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.

Begin with clean equipment. Fill spray tank with ¾ of the amount of water needed for the intended application and turn on agitation. If using a buffering agent, add after filling the tank with ¾ amount of water.

Add the recommended amount of tankmix products in the following order while maintaining agitation:

1) products in water-soluble packets
2) wettable powders
3) water-dispersible granulars and/or soluble powders
4) flowable liquids
5) emulsifiable concentrates
6) adjuvants and/or oils
7) remaining amount of water to achieve the desired level

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Note: It is recommended that the compatibility of Talus 70DF in any tankmix combination be tested before use. To determine the physical compatibility with other products, use a jar test, as described below:

Using a quart (qt) jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then flowable liquids, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

SPRAY DRIFT MANAGEMENT

Ground Applications

MANDATORY SPRAY DRIFT

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boomless Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size Ground Boom

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

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BOOM HEIGHT Ground Boom
For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS
Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND
Drift potential generally increases with wind speed.
AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

SPRAY DRIFT
Boom-less Ground Applications
Setting nozzles at the lowest effective height will help to reduce the potential for spray drift

SPRAY DRIFT
Handheld Technology Applications
Take precautions to minimize spray drift.

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APPLICATION RATE CHART FOR Talus 70DF

<table>
<tr><td colspan="3">GREENHOUSE FRUITING VEGETABLES (CROP GROUP 8-10)
African eggplant, Bush tomato, Cocona, Currant tomato, Eggplant, Garden huckleberry, Goji berry, Groundcherry, Martynia, Naranjilla, Okra, Pea eggplant, Pepino, Pepper (bell), Pepper (nonbell), Roselle, Scarlet eggplant, Sunberry, Tomatillo, Tomato, Tree tomato, cultivars, varieties and/or hybrids of these</td></tr>
<tr><td>Pests</td><td>Dilution Rate</td><td>Directions for Use</td></tr>
<tr><td>Leafhoppers
Mealybugs
Planthoppers</td><td>9.0 oz/100 gal
(0.56 lb product/100 gal)

(0.40 lb ai/100 gal)</td><td rowspan="2">USE RESTRICTIONS
• Apply no more than 2 applications per growing cycle.
• Allow at least 5 days between applications.
• Do not apply more than 18.0 oz (1.12 lb product) per acre per growing cycle.
• Do not apply more than 18.0 oz (0.80 lb ai) per acre per growing cycle.
• Preharvest Interval (PHI): 1 day
• Do not apply this product in residential areas.

RECOMMENDATIONS
• 100 gallons of finished spray solution will typically cover 1 acre.
• Treatment should be applied when population level reaches economic threshold. Consult local and state agricultural authorities for details.
• Apply in sufficient water to obtain complete coverage of all plant parts. Good coverage is essential.
• Applications may be made with high volume, low volume or ultra-low volume (thermal and non-thermal foggers, misters, etc.) ground equipment only.
• Follow the spray equipment manufacturer’s directions to determine the amount of spray solution required to obtain thorough coverage.
• Consult the spray equipment manufacturer’s operator’s manual, spray nozzle catalogs and/or your crop advisor
• for more information.</td></tr>
<tr><td>Whiteflies</td><td>6.0 to 9.0 oz/100 gal

(0.38 to 0.56 lb product/100 gal)

(0.26 to 0.40 lb ai/100 gal)</td></tr>
</table>

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Ornamental Plants
in greenhouses; lath and shadehouses; nurseries; landscape ornamentals; ground covers; field-and container-grown ornamentals; non-bearing fruit and nut trees and vines in nurseries; Christmas trees

Pests	Dilution Rate	Use Directions
Leafhoppers Mealybugs Planthoppers	12.0 oz/100 gal (0.75 lb product/100gal) (0.53 lb ai/100 gal)	**USE RESTRICTIONS** • Make no more than 2 applications per crop per growing season. • Do not apply more than 28.0 oz (1.76 lbs product) per acre per growing cycle. • Do not apply more than 28.0 oz (1.22 lb ai) per acre per growing cycle. • Do not apply this product in residential areas.
Scales	14.0 oz/100 gal (0.88 lb product/100gal) (0.61 lbs ai/ 100 gal)	**RECOMMENDATIONS** • 100 gallons of finished spray solution will typically cover 1 acre. • Applications may be made with high volume, low volume or ultra-low volume (thermal and non-thermal foggers, misters, etc.) ground equipment only. • Follow the spray equipment manufacturer's directions to determine the amount of spray solution required to obtain thorough coverage. Consult the spray equipment • manufacturer's operator's manual, spray nozzle catalogs and/or your crop advisor for more information. • Apply the specified dosage as a foliar spray in sufficient water for complete, uniform coverage, including stems and underside of leaves. Spray to the point of runoff. • **Whiteflies, Leafhoppers or Planthoppers:** Make first application as soon as adult insects begin to appear. • **Mealybugs:** Make first application as soon as insect activity is observed. • **Scales:** Make first application when crawlers are emerging. • If additional insecticide applications are required for control, use another class of chemistry or a different Insect Growth Regulator (IGR) with a different mode of action before making subsequent applications of buprofezin. • Consult local or state agricultural authorities for details concerning economic thresholds for each target pest.
Whiteflies	6.0 oz/100 gal (0.38 lb product/100 gal) (0.26 lb ai/100 gal)	

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STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container, unopened, in a cool, dry place.

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

CONATAINER HANDLING:

Nonrefillable plastic container less than 50 pounds

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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 recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, other methods allowed by state and local authorities.

Nonrefillable plastic container greater than 50 pounds

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat the procedure two more times.

Alternatively, for pressure rinsing, pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill orby other procedures approved by state and local authorities.

Nonrefillable paper and plastic bags

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. The offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or other methods allowed by state and local authorities.

In case of fire or spills, information may be obtained by calling 1-800-535-5053.

IMPORTANT: READ BEFORE USE

TERMS AND CONDITIONS OF USE

If terms of the *Warranty Disclaimer* and *Misuse* provisions on the product label as well as the *Inherent Risks of Use* and *Limitation of Remedies* statements below are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, to the extent consistent with applicable law, use by the buyer or any other user constitutes acceptance of the terms under *Warranty Disclaimer, Misuse, Inherent Risks of Use,* and *Limitation of Remedies.*

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INHERENT RISKS OF USE

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

LIMITATION OF REMEDIES

To the extent consistent with applicable law, 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 SePRO Corporation'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.

To the extent consistent with applicable law, SePRO Corporation shall not be liable for losses or damages resulting from handling or use of this product unless SePRO Corporation is promptly notified of such losses or damages in writing. In no case shall SePRO Corporation be liable for consequential or incidental damages or losses.

The terms of the *Warranty Disclaimer* and *Misuse* provisions on the product label and these *Terms and Conditions of Use, Inherent Risks of Use* and *Limitation of Remedies* cannot be varied by any written or verbal statements or agreements. No employee or sales agent of SePRO Corporation or the seller is authorized to vary or exceed the terms of the *Warranty Disclaimer* and *Misuse* provisions on the product label and these *Terms and Conditions of Use, Inherent Risks of Use* and *Limitation of Remedies* in any manner.

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