## NET CONTENTS: 1 GALLON

VALENT®

**FOR CONTROL OF CERTAIN DISEASES IN BRASSICA HEAD AND STEM VEGETABLES (GROUP 5-16); BRASSICA LEAFY GREENS (CROP SUBGROUP 4-16B); CUCURBIT VEGETABLES (CROP GROUP 9), GINSENG, PEPPER/ EGGPLANT (CROP SUBGROUP 8-10B) AND TUBEROUS AND CORM VEGETABLES (CROP SUBGROUP 1C)**

| Active Ingredient | By Wt |
|---|---|
| Ethaboxam* | 42.5% |
| Other Ingredients | 57.5% |
| Total | 100.0% |

*(RS)-N-[cyano(2-thienyl)methyl]-4-ethyl-2-(ethylamino)thiazole-5-carboxamide

Elumin® Fungicide is a suspension concentrate fungicide containing 4 lb active ingredient per gallon.

EPA Reg. No. 59639-211
EPA Est. 228-IL-1(X), 228-IL-2(A), 39578-TX-1(E), 5481-ID-1(M), 5905-GA-1(C), 62171-MS-1(Q), 62171-MS-3(P), 62171-MS-4, 67545-AZ-1(T), 67997-IA-1, 67997-IA-7, 70815-GA-1(V), 70815-GA-2(B), 70815-GA-3, 71764-NC-1, 86555-MO-1(S), 89332-GA-2(K), 97524-GA-1(Z)
Superscript is first letter of lot number.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**SEE NEXT PAGE FOR PRECAUTIONARY STATEMENTS.**

ELUMIN®
FUNGICIDE

**PRECAUTIONARY STATEMENTS**
**CAUTION**

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, socks and shoes.

**Engineering Control Statements:** When applying *Elumin* Fungicide using aerial application equipment, applicators are required to use enclosed cockpits. The enclosed cockpits must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(6)).

**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.
- 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**

This pesticide is toxic to aquatic invertebrates, oysters, and shrimp. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water by disposing of equipment washwaters or rinsate.

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several days after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams and springs will reduce the potential loading of ethaboxam from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

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 (REI). 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 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, including plants, soil or water, is: coveralls, chemical-resistant gloves made of any waterproof material including natural rubber ≥ 14 mils, socks and shoes.

**RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND DISCLAIMER, AND LIMITATION OF LIABILITY**

**IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.**

**RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

To the extent consistent with applicable law, Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses

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of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label **and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

**To the extent consistent with applicable law Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

**PROMPT NOTICE OF CLAIM**

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from

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date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.
To the extent consistent with applicable law, if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

**NO AMENDMENTS**
Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty** and **Limitation of Liability,** which may not be modified by any oral or written agreement.

**TANK MIXES**
NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, consistent with applicable law.

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.

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**PRODUCT INFORMATION**
*Elumin* Fungicide is formulated as a suspension concentrate (SC) containing ethaboxam at 4 lb ai/gal. *Elumin* Fungicide exhibits protective, curative, and antisporulant activity. Ethaboxam is locally systemic and translaminar and also moves systemically via xylem tissue.

*Elumin* Fungicide is most effective when applied in a regularly scheduled spray program used in combination and/or rotation with other effective fungicides that have different modes of action.

**MODE OF ACTION**
*Elumin* Fungicide is active against a range of oomycete pathogens. Ethaboxam interferes with beta-tubulin assembly in mitosis and cell division. Ethaboxam is a Group 22 fungicide as classified by the Fungicide Resistance Action Committee (FRAC).

**RESISTANCE MANAGEMENT**
For resistance management, *Elumin* Fungicide contains a Group 22 fungicide/bactericide. Any fungal/bacterial

population may contain individuals naturally resistant to *Elumin* Fungicide and other Group 22 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of *Elumin* Fungicide or other Group 22 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides 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/bactericide 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/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Valent at 800-6-VALENT
- (682-5368). You can also contact your pesticide distributor or university extension specialist to report resistance.

**JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND *ELUMIN* FUNGICIDE**

Perform a jar test before mixing commercial quantities of *Elumin* Fungicide, when using *Elumin* Fungicide for the first time or when a new water source is being used.

1. Add 1 pt of water plus adjuvant to a quart jar. Use water from the same source and temperature as water that will be used in the spray tank mixing operation.
2. Add 2.5 ml (1/2 tsp) of *Elumin* Fungicide to the quart jar, gently mix until product goes into suspension.
3. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
4. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed reevaluate the choice of adjuvant:
   a) Layer of oil or globules on the mixture's surface.
   b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
   c) Clabbering: thickening texture (coagulated) like gelatin.

**APPLICATION INSTRUCTIONS**

Always mix product thoroughly before use.

**SPRAYER PREPARATION**

Before applying *Elumin* Fungicide, start with clean, well maintained application equipment. The spray tank, hoses and booms must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply *Elumin* Fungicide. If two or more products were tank mixed prior to *Elumin* Fungicide application, follow the most restrictive cleanup procedure.

**MIXING INSTRUCTIONS**

1. Fill clean spray or nurse tank 1/2 to 2/3 of desired level with clean water.
2. While agitating, slowly add the *Elumin* Fungicide to the tank. Adequate agitation will create a rippling or rolling action on the water surface.
3. When tank mixing *Elumin* Fungicide with other labeled pesticides, add water soluble packets first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. When tank mixing, follow the most restrictive label directions, precautions and limitations.
4. Add any required adjuvants.
5. Fill tank to desired level with water. Continue to agitate until all spray solution has been used or applied.

**SPRAYER CLEANUP**

Clean spray equipment following application of *Elumin* Fungicide using the following procedures:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Drain tank completely.
4. Remove all nozzles and screens and rinse them in clean water.

5. The rinsate solution may be applied to the crops listed on this label. Do not exceed the maximum labeled use rate. If cleaners are used, consult the cleaner label for disposal instructions. If no instructions are given, dispose of rinsate at an approved waste disposal facility.

**APPLICATION EQUIPMENT**

Keep application equipment clean and in good repair. Check nozzles frequently for accuracy.

**CARRIER VOLUME**

Apply *Elumin* Fungicide in sufficient water to ensure thorough coverage of foliage, bloom and fruit. Thorough coverage is required for optimal disease control. For ground application, apply a minimum of 20 gallons of spray mixture per acre and for aerial application (except ginseng), do not apply less than 5 gallons of spray mixture per acre to assure uniform coverage. Follow individual CROP SPECIFIC REQUIREMENTS for appropriate spray volumes.

**AERIAL APPLICATION (EXCEPT GINSENG)**

To minimize spray drift, apply the largest droplet size consistent with uniform coverage and satisfactory disease control. Do not apply during low-level inversion conditions, when winds are gusty or under other conditions that favor drift. Do not spray when wind velocity is less than 2 mph or more than 10 mph.

- **Carrier Volume and Spray Pressure:** Application at less than 5 gallons per acre may provide inadequate coverage and control. The higher gallonage applications generally afford more consistent disease control. Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Nozzle Selection and Orientation:** Formation of very small drops can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray pressure. Use nozzles that produce flat fan or cone spray patterns. Use non-drip type nozzles, including diaphragm type nozzles, to avoid unwanted discharge of spray solution. Direct the nozzles toward the rear of the aircraft, producing a spray discharge at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.
- **Adjuvants and Drift Control Additives:** Refer to tank mix partner's label for information on adjuvant usage. Drift control additives may be used although it is better to obtain coarser sprays through appropriate nozzle selection and use wherever possible. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label, and be certain of compatibility with the tank mix and nozzle types being used before selecting any adjuvant types.

**MANDATORY SPRAY DRIFT MANAGEMENT**

**SPRAY DRIFT**

**Aerial Applications**

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

**Ground Boom Applications:**

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- Applicators are required to use a fine 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.

**Boom-less 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.

**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.

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

**CHEMIGATION**
*Elumin* Fungicide may be applied through sprinkler irrigation and injection (i.e., drip irrigation) systems mainly for soilborne diseases. Follow all label requirements regarding application rates, timing of application, special instructions and precautions.

For chemigation applications apply this product only through center pivot, solid set, hand move and injection (drip irrigation) systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of *Elumin* Fungicide applied corresponds to the required rate on this label for the crop being chemigated.

Apply *Elumin* Fungicide in 1/2 to 3/4 inches of water during the first sprinkler set. Allow time for all lines to flush the fungicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining fungicide, a dye indicator may be injected into the lines to mark the end of the application period.

If you have any questions about calibration, contact your State Extension Specialist, equipment manufacturers or other experts.

**Special Precautions for Chemigation**
1. Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
2. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of that person, shall shut the system down and make necessary adjustments should the need arise.

3. The system must be free of leaks and clogged nozzles.
4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor control.
5. Agitation must be maintained in the nurse tank.
6. The chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
8. The pesticide injection pipeline must also contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
11. Systems must use a metering pump, including a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides being used and capable of being fitted with a system interlock.
12. Do not apply when wind speed favors drift beyond the area intended for treatment.

**Chemigation Systems Connected to Public Water Systems**

1. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "Special Precautions for Chemigation".

**ROTATIONAL RESTRICTIONS**

The following rotational crops may be planted after applying *Elumin* Fungicide at the labeled rate. Planting earlier than the specified rotational interval is not allowed.

| CROPS | ROTATIONAL INTERVAL |
|---|---|
| Brassica Head and Stem Vegetable (Crop Group 5-16)<br>Brassica Leafy Greens (Crop Subgroup 4-16B)<br>Cucurbit Vegetables (Crop Group 9)<br>Ginseng<br>Pepper/Eggplant (Crop Subgroup 8-10B)<br>Tuberous and Corm Vegetables (Crop Subgroup 1C) | Immediately |
| All Other Crops | 30 days |

**SPECIFIC REQUIREMENTS – ALL CROPS**

**When to Apply:** See crop-specific requirements. When applying as a foliar spray, apply in sufficient water to obtain thorough coverage. Chemigation is not advised when the primary disease is downy mildew or other foliar diseases.

**Resistance Management:** *Elumin* Fungicide must be used as part of an integrated pest management (IPM) program. Observe recommendations listed in the RESISTANCE MANAGEMENT section.

**Restrictions and Limitations**

- The maximum *Elumin* Fungicide application rate is 8 fl oz per acre (0.25 lb ai/A) per application and 16 fl oz per acre (0.5 lb ai/A) per year.
- If noted in the CROP SPECIFIC REQUIREMENTS section, do not apply sequentially before rotating to a non-Group 22 fungicide that is registered for the same use and that is effective against the pathogens of concern.
- Do not make more than 2 applications of *Elumin* Fungicide per acre per year.
- Do not apply to greenhouse food crops.
- Do not apply this product when weather conditions favor spray drift from treated areas.
- When applying by air, observe drift management restrictions and precautions listed in the AERIAL APPLICATION section. Best control is achieved through ground application.

| Crops | Minimum Time from Application to Harvest (PHI) Days | Maximum Rate per Acre per Application (fl oz) | Maximum Number of Applications per Year | Maximum Rate per Acre per Year (fl oz) | Livestock Grazing or Feeding Restriction |
|---|---|---|---|---|---|
| Brassica Head and Stem Vegetable (Crop Group 5-16) | 2 | 8 (0.25 lb ai/A) | 2 | 16 (0.5 lb ai/A) | No |
| Brassica Leafy Greens (Crop Subgroup 4-16B) | 2 | 8 (0.25 lb ai/A) | 2 | 16 (0.5 lb ai/A) | No |
| Cucurbit Vegetables (Crop Group 9) | 2 | 8 (0.25 lb ai/A) | 2 | 16 (0.5 lb ai/A) | No |
| Ginseng | 14 | 8 (0.25 lb ai/A) | 2 | 16 (0.5 lb ai/A) | No |
| Pepper/Eggplant (Crop Subgroup 8-10B) | 2 | 8 (0.25 lb ai/A) | 2 | 16 (0.5 lb ai/A) | No |
| Tuberous and Corm Vegetables (Crop Subgroup 1C) | N/A | 8 (0.25 lb ai/A) | 2 | 16 (0.5 lb ai/A) | No |

**CROP SPECIFIC REQUIREMENTS**

| **Brassica Head and Stem Vegetable (Crop Group 5-16)**<br>Broccoli; Brussels sprouts; cabbage; cabbage, Chinese (napa); cauliflower; cultivars, varieties, and hybrids of these commodities | | | | |
|---|---|---|---|---|
| **Diseases** | **Product Application Rate**<br>**fl oz/A** | **Application Volume**<br>**gal/A** | **Specific Use Instructions** | **Use Restrictions** |
| Downy Mildew (*Peronospora parasitica*)<br>Damping-off (*Pythium* spp.) | 8 (0.25 lb ai/A) | Ground: 20 to 100<br>Aerial Minimum: 5 | **Downy Mildew**<br>For downy mildew control, make foliar fungicide applications beginning when conditions are favorable for disease development and prior to disease onset, and continuing throughout the season. Follow application of *Elumin* Fungicide with a non-FRAC Group 22 fungicide at a 7-10 day interval before applying the second application of *Elumin* Fungicide.<br>A spreader/penetrator adjuvant (non-ionic or organosilicone) must be tank-mixed at specified rates.<br>**Damping-off**<br>Apply as a soil drench or by drip irrigation at the time of planting/transplanting. A second application can be made through drip-irrigation a minimum of 7 days after the initial application. | • Do not apply within 2 days of harvest.<br>• Do not make more than 2 applications per year.<br>• Do not apply more than 8 fl oz per acre (0.25 lb ai/A) per application.<br>• Do not apply more than 16 fl oz (0.5 lb ai) of *Elumin* Fungicide per acre per year.<br>• Do not apply sequentially. Alternate with a non-FRAC Group 22 fungicide for resistance management.<br>• Do not apply *Elumin* Fungicide at intervals of less than 7 days. |

(continued)

**CROP SPECIFIC REQUIREMENTS** (continued)

**Brassica Leafy Greens (Crop Subgroup 4-16B)**

Arugula; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale; collards; cress, garden; cress, upland; hanover salad; kale; maca, leaves; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress; cultivars, varieties, and hybrids of these commodities

| Diseases | Product Application Rate<br>fl oz/A | Application Volume<br>gal/A | Specific Use Instructions | Use Restrictions |
|---|---|---|---|---|
| Downy Mildew (*Peronospora parasitica*)<br>Damping-off (*Pythium* spp.) | 8 (0.25 lb ai/A) | Ground: 20 to 100<br>Aerial Minimum: 5 | **Downy Mildew**<br>For downy mildew control, make foliar fungicide applications beginning when conditions are favorable for disease development and prior to disease onset, and continuing throughout the season.<br>Follow application of *Elumin* Fungicide with a non-FRAC Group 22 fungicide at a 7-10 day interval before applying the second application of *Elumin* Fungicide.<br>A spreader/penetrator adjuvant (non-ionic or organosilicone) must be tank-mixed at specified rates.<br>**Damping-off**<br>Apply as a soil drench or by drip irrigation at the time of planting/transplanting. A second application can be made through drip-irrigation a minimum of 7 days after the initial application. | • Do not apply within 2 days of harvest.<br>• Do not make more than 2 applications per year.<br>• Do not apply more than 8 fl oz per acre (0.25 lb ai/A) per application.<br>• Do not apply more than 16 fl oz (0.5 lb ai) of *Elumin* Fungicide per acre per year.<br>• Do not apply sequentially. Alternate with a non-FRAC Group 22 fungicide for resistance management.<br>• Do not apply *Elumin* Fungicide at intervals of less than 7 days.<br>• For applications made to watercress, production fields must be drained of water at least 24 hours prior to application and water must not be reapplied to the field for a minimum of 24 hours following the application. |

(continued)

**CROP SPECIFIC REQUIREMENTS** (continued)

**Cucurbit Vegetables (Crop Group 9)**

Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); pumpkin; squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon.

| Diseases | Product Application Rate<br>fl oz/A | Application Volume<br>gal/A | Specific Use Instructions | Use Restrictions |
|---|---|---|---|---|
| Downy Mildew (*Pseudoperonospora cubensis*) | 8 (0.25 lb ai/A) | Ground: 20 to 100<br>Aerial Minimum: 5 | **Downy Mildew**<br>For downy mildew control, make foliar fungicide applications beginning when conditions are favorable for disease development and prior to disease onset, and continuing throughout the season.<br>Follow application of *Elumin* Fungicide with a non-FRAC Group 22 fungicide at a 7-10 day interval before applying the second application of *Elumin* Fungicide. | • Do not apply within 2 days of harvest.<br>• Do not make more than 2 applications per year.<br>• Do not apply more than 8 fl oz per acre (0.25 lb ai/A) per application.<br>• Do not apply more than 16 fl oz (0.5 lb ai) of *Elumin* Fungicide per acre per year.<br>• Do not apply sequentially. Alternate with a non-FRAC Group 22 fungicide for resistance management.<br>• Do not apply *Elumin* Fungicide at intervals of less than 14 days. |
| Phytophthora Blight/Crown Rot (*Phytophthora capsici*) | | | **Phytophthora Blight/Crown Rot**<br>For Phytophthora control, make soil spray or foliar fungicide applications beginning when conditions are favorable for disease development and prior to disease onset, and continuing throughout the season.<br>Follow application of *Elumin* Fungicide with a non-FRAC Group 22 fungicide at a 7-10 day interval before applying the second application of *Elumin* Fungicide.<br>For best results, begin application at planting/transplanting.<br>**Injection (drip irrigation) for soilborne diseases:** Inject *Elumin* Fungicide into the irrigation water at the listed application rate. | |

(continued)

**CROP SPECIFIC REQUIREMENTS** (continued)

| Ginseng | | | | |
|---|---|---|---|---|
| **Diseases** | **Product Application Rate**<br>**fl oz/A** | **Application Volume**<br>**gal/A** | **Specific Use Instructions** | **Use Restrictions** |
| Phytophthora (*Phytophthora parasitica*) | 8 (0.25 lb ai/A) | Ground: 20 to 100 | For Phytophthora control, make soil spray or foliar fungicide applications beginning when conditions are favorable for disease development and prior to disease onset, and continuing throughout the season.<br>Follow application of *Elumin* Fungicide with a non-FRAC Group 22 fungicide at a 7-10 day interval before applying the second application of *Elumin* Fungicide.<br>For best results, begin application at planting/transplanting.<br>**Injection (drip irrigation) for soilborne diseases:** Inject *Elumin* Fungicide into the irrigation water at the listed application rate. | • Do not apply within 14 days of harvest.<br>• Do not make more than 2 applications per year.<br>• Do not apply more than 8 fl oz per acre (0.25 lb ai/A) per application.<br>• Do not apply more than 16 fl oz (0.5 lb ai) of *Elumin* Fungicide per acre per year.<br>• Do not apply sequentially. Alternate with a non-FRAC Group 22 fungicide for resistance management.<br>• Do not apply *Elumin* Fungicide at intervals of less than 14 days. |

(continued)

**CROP SPECIFIC REQUIREMENTS** (continued)

**Pepper/Eggplant (Crop Subgroup 8-10B)**

African eggplant; bell pepper; eggplant; martynia; nonbell pepper; okra; pea eggplant; pepino; roselle; scarlet eggplant; cultivars, varieties, and/or hybrids of these.

| Diseases | Product Application Rate<br>fl oz/A | Application Volume<br>gal/A | Specific Use Instructions | Use Restrictions |
|---|---|---|---|---|
| Phytophthora Blight (*Phytophthora capsici*)<br>Phytophthora Root Rot (*Phytophthora parasitica*) | 8 (0.25 lb ai/A) | Ground: 20 to 100<br>Aerial Minimum: 5 | For Phytophthora control, make soil spray or foliar fungicide applications beginning when conditions are favorable for disease development and prior to disease onset, and continuing throughout the season.<br>Follow application of *Elumin* Fungicide with a non-FRAC Group 22 fungicide at a 7-10 day interval before applying the second application of *Elumin* Fungicide.<br>For best results, begin application at planting/transplanting.<br>**Injection (drip irrigation) for soilborne diseases:** Inject *Elumin* Fungicide into the irrigation water at the listed application rate. | • Do not apply within 2 days of harvest.<br>• Do not make more than 2 applications per year.<br>• Do not apply more than 8 fl oz per acre (0.25 lb ai/A) per application.<br>• Do not apply more than 16 fl oz (0.5 lb ai) of *Elumin* Fungicide per acre per year.<br>• Do not apply sequentially. Alternate with a non-FRAC Group 22 fungicide for resistance management.<br>• Do not apply *Elumin* Fungicide at intervals of less than 14 days. |

(continued)

**CROP SPECIFIC REQUIREMENTS** (continued)

| **Tuberous and Corm Vegetables (Crop Subgroup 1C)**<br>Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; yam, true | | | | |
|---|---|---|---|---|
| **Diseases** | **Product Application Rate**<br>**fl oz/A** | **Application Volume**<br>**gal/A** | **Specific Use Instructions** | **Use Restrictions** |
| Pink Rot (*Phytophthora erythroseptica*)<br>Pythium Leak (*Pythium* spp.) | 8 (0.25 lb ai/A) | In-furrow: 5 to 10<br>Side-dress 20 to 40 | Apply *Elumin* Fungicide using a 6 to 8 inch band directly over the seed piece, or in the furrow where the seed piece will be dropped, prior to furrow closure. Make a banded side dressing application of *Elumin* Fungicide between hilling and tuber initiation. Make applications at least 25 days apart.<br>A number of factors affect pink rot or leak severity including: variety susceptibility, field history and environmental conditions. Additional applications of an effective material may be necessary. | • Do not make more than 2 applications per year.<br>• Do not apply more than 8 fl oz per acre (0.25 lb ai/A) per application.<br>• Do not apply more than 16 fl oz (0.5 lb ai) of *Elumin* Fungicide per acre per year.<br>• Do not apply *Elumin* Fungicide at intervals of less than 25 days. |

# STORAGE AND DISPOSAL

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

**STORAGE**

Keep pesticide in original container.
Do not put concentrate or dilute into food or drink containers.
Store in a cool dry place.
Do not use or store in or around the home.
Do not store or transport near feed or food.
Do not store at temperature below 32°F. If the product is exposed to temperatures below 32°F, thaw at 50°F or higher and shake gently to unify the product.
For help with any spill, leak, fire or exposure involving this material, call day or night 800-892-0099.

**PESTICIDE DISPOSAL**

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

**CONTAINER HANDLING**

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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinse 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; otherwise dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

**RECYCLING**

Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact the Ag Container Recycling Council (ACRC) at 877-952-2272 (toll free) or www.acrecycle.org.



Manufactured for:
**Valent U.S.A. LLC**
P.O. Box 5075
San Ramon CA 94583
Made in U.S.A.
Form 2134-E

EPA Reg. No. 59639-211
EPA Est. 228-IL-1Ⓧ, 228-IL-2Ⓐ, 39578-TX-1Ⓒ, 5481-ID-1Ⓜ, 5905-GA-1Ⓒ, 62171-MS-1Ⓠ, 62171-MS-3Ⓟ, 62171-MS-4, 67545-AZ-1Ⓥ, 67997-IA-1, 67997-IA-7, 70815-GA-1Ⓥ, 70815-GA-2Ⓑ, 70815-GA-3, 71764-NC-1, 86555-MO-1Ⓒ, 89332-GA-2Ⓚ, 97524-GA-1Ⓔ
Superscript is first letter of lot number.
059639-00211.20240105.V-10208_4SC.Notif.Pointer

Information contained in this booklet is accurate at the time of printing. Since product testing is a continuous process, please read and follow the directions on the product label for the most current directions and precautionary statements.

Always check with your state to verify state registration status or call 800-6-VALENT (682-5368).



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For state registration and/or supplemental labels, please call or visit us online.

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***Always read and follow label instructions.***

 Date 01/09/24