

Specimen Label

RESTRICTED USE PESTICIDE DUE TO ACUTE INHALATION TOXICITY

For sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. An applicator licensed/certified by the state must be present on site at all times during introduction of fumigant, reentry prior to aeration, and initiation of the aeration procedure.



ProFume*

Gas Fumigant

*Trademark of Dow AgroSciences LLC

For control of postharvest insect and rodent pests.

Sites to be fumigated: Non-residential structures (for the food commodities listed on the label) such as: mills, warehouses, stationary transportation vehicles (railcars, trucks, etc., excluding aircraft and passenger railcars), temporary and permanent fumigation chambers, and storage structures. For use in food processing establishments containing only those commodities listed on the label. Not for use in other food handling establishments.

When fumigating, all local, state, and federal rules and regulations regarding use of detection devices, positive-pressure self-contained breathing apparatus, security requirements, and placement of warning signs must be observed.

Read the entire label and ProFume gas fumigant Fumigation Manual before use. The ProFume gas fumigant Fumigation Manual for this product contains important information for the safe and effective use of this product and must be read and in the user's possession during fumigation. If the ProFume gas fumigant Fumigation Manual is lost, contact your ProFume distributor or Dow AgroSciences representative to obtain a replacement copy.

Active Ingredient	
sulfuryl fluoride.....	99.8%
Inert Ingredients.....	00.2%
Total	100.0%

10.8 lb active ingredient per gallon (liquid in cylinder)

EPA Reg. No. 62719-376

Keep Out of Reach of Children

DANGER  **POISON**
PELIGRO

Si usted no entiende la etiqueta ni el manual de fumigación del gas fumigante ProFume, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label nor ProFume gas fumigant Fumigation Manual, find someone to explain it to you in detail.)

Precautionary Statements

Hazards to Humans and Domestic Animals

Danger • Fatal If Inhaled • Causes Irreversible Eye Damage • Liquid Causes Freeze Burns Of Exposed Skin • May Be Fatal If Swallowed

Do not breathe vapor. Do not get in eyes, on skin, or on clothing. ProFume is odorless and colorless. Exposure to toxic levels may occur without warning or detection by the user.

Personal Protective Equipment for Fumigation

Protective Clothing

Wear splash resistant goggles or full face shield when handling the liquid product during introduction of fumigant or when working around any lines containing fumigant under pressure. Do not wear gloves or rubber boots. Do not reuse clothing or shoes that have become contaminated with liquid ProFume until thoroughly aerated. Wear loose fitting or well-ventilated long-sleeve shirt, long pants, shoes and socks.

Respiratory Protection

If the concentration of ProFume in the fumigated area as measured by an approved detection device with sufficient sensitivity [Limit of Detection (LOD) \leq 1 ppm] such as an INTERSCAN gas analyzer [Model GF 1900] or MIRAN vapor analyzer [SapphIRe] does not exceed 1 ppm, no respiratory protection is required. When this concentration is exceeded, all persons in these areas must wear a NIOSH or MSHA approved positive pressure self-contained breathing apparatus (SCBA, not SCUBA), approval number prefix TC-19C, or combination air-supplied/SCBA respirator such as manufactured by Ranger, Survivair, Scott, or MSA. This SCBA must be on site and operational before fumigation. Before using any make or brand of SCBA, learn how to use it correctly. Determine that it is in good working order, has an adequate air supply for the job at hand, fits properly, and provides an adequate seal around the face.

First Aid

In all cases of overexposure, when symptoms such as nausea, difficulty in breathing, abdominal pain, slowing of movements and speech, or numbness in extremities are exhibited, get medical attention immediately. Take person to a doctor or emergency treatment facility.

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 on skin or clothing: Immediately apply water to contaminated area of clothing before removing. Once area has thawed, remove contaminated clothing, shoes, and other items covering skin. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Liquid ProFume in the eye may cause damage due to refrigeration or freezing. Call a poison control center or doctor for treatment advice.

Note to Physician: ProFume is a gas that has no warning properties such as odor, color, or eye irritation. Early symptoms of exposure to ProFume are respiratory irritation and central nervous system depression. Excitation may follow. Slowed movement, reduced awareness, and slow or garbled speech may be noted. Prolonged exposure can produce lung irritation, pulmonary edema, nausea, and abdominal pain. Repeated exposure to high concentrations can result in significant lung and kidney damage. Single exposures at high concentrations have resulted in death. Treat symptomatically.

Have the product label or ProFume gas fumigant Fumigation Manual with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

Sulfuryl fluoride is a highly toxic gas. Do not expose non-target organisms. This pesticide is toxic to fish and wildlife.

Physical or Chemical Hazards

Sulfuryl fluoride is a colorless, odorless toxic gas. ProFume cylinders are under pressure and must not be stored near heat or open flame. Exposures to temperatures above 158°F will cause a fusible plug to melt and the contents will be released. Under high heat conditions (temperatures above 752°F), ProFume can decompose into sulfur dioxide (SO₂), hydrofluoric acid (HF), and other decomposition products. Hydrofluoric acid is highly reactive and can corrode or damage many materials including metals, glass, ceramic finishes, fabrics, etc. Extinguish all flames including pilot lights of furnaces, hot water heaters, dryers, gas refrigerators, ranges, ovens, broilers, and open flames. Turn off or unplug all electrical heating elements such as those in heaters, dryers, etc. Shut off automatic switch controls for appliances and lighting systems that will be included in the space to be fumigated. Contact your local gas company to determine what procedures should be followed in your area for shutting off natural gas or propane service. Gas service should be shut off at the main service valve. Sulfuryl fluoride can react with strong bases such as some photo developing solutions.

ProFume cylinders must never be transported by aircraft under any circumstance.

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

Before using this product, read Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Directions for Use

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

Read all Directions for Use carefully before applying.

Storage and Handling

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

Pesticide Storage: Store in a dry, cool, well ventilated secured and locked area. Post as a pesticide storage area. Store cylinders upright; secured to a rack or wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. It is recommended to transport cylinders using hand truck or fork truck to which the cylinder can be firmly secured. Do not transport cylinders in closed vehicles where the same common airspace is occupied by personnel. Transport securely only in an upright position.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

When cylinder is empty, close valve, screw safety cap onto valve outlet, and replace protection bonnet before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinder for any other purpose. Follow registrant's instructions for return of empty or partially empty cylinders.

Leak Procedures: Evacuate immediate area of leak. Use a NIOSH or MSHA approved positive pressure self-contained breathing apparatus (SCBA, not SCUBA) or combination air-supplied/SCBA respirator, such as manufactured by Ranger, Survivair, Scott, or MSA, for entry into affected areas to correct problem. Move leaking or damaged cylinder outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Do not permit entry into leakage area by unprotected persons until concentration of fumigant is determined to be 1 part per million (ppm) or less, as determined by a detection device with sufficient sensitivity such as an INTERSCAN gas analyzer [Model: GF 1900] or MIRAN vapor analyzer [SaphIRe].

Pesticide Disposal: Promptly return all empty cylinders to the supplier of ProFume. All unused fumigant must be returned to the supplier of ProFume. Follow proper cylinder handling directions above. Supplier must return all cylinders to The Dow Chemical Company, Pittsburg, California facility.

Pesticide wastes are toxic. Improper disposal of excess pesticides is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, consult your State Pesticide or Environmental Control Agency or Hazardous Waste office nearest your location.

General Information

Restricted Use Pesticide

Carefully read the label and ProFume* gas fumigant Fumigation Manual before using. Do not use this product without the Fumiguide* Program for ProFume gas fumigant. The ProFume Fumiguide is part of the labeling for this product and must be used to calculate the dosage. Never allow untrained individuals to apply ProFume gas fumigant.

Notify appropriate owners, employees, and/or operators at the facility by providing the Fact Sheet for ProFume where the fumigation will occur. Provide relevant safety and health information to local fire and rescue officials for use in the event of an emergency. All entrances and all sides of the fumigated structure or fumigated space must have warning signs. See the section Posting of Fumigated Areas for details. Do not connect cylinders to introduction equipment until all fumigation warning signs have been posted and the space to be fumigated is clear of people, non-target animals and secured.

Compressed Gas Hazards

The release of high pressure fumigant can be forceful and there is potential for personal injury. Care must be exercised when fumigating, especially tarped commodities, so that the fumigant is not released too rapidly and "balloons" the tarp off of the restraining sand or water snakes. A fog-out can also occur if the fumigant is released too rapidly, cooling the air temperature below the dew point. This is avoided by following the instructions in Chapter 6 of the ProFume gas fumigant Fumigation Manual.

The rapid discharge of ProFume through introduction equipment will result in cooling parts of the equipment and the cylinders. Contact with the cooled equipment can cause frostbite.

ProFume is a highly hazardous material and should be used only by individuals knowledgeable of its chemical hazards and trained in the use of required respiratory equipment, detection devices, emergency procedures, and proper use.

Two persons trained in the use of this product, at least one being an applicator licensed/certified by the state, must be present on site at all times during introduction of the fumigant, reentry prior to aeration, initiation of the aeration procedure, and when testing for reentry after aeration (if aerated in an enclosed space). Two persons need not be present if monitoring is conducted outside the area being fumigated.

No one shall be in fumigated areas if the level of ProFume is above 1 ppm unless wearing a NIOSH or MSHA approved positive pressure self-contained breathing apparatus (SCBA, not SCUBA) or combination air supplied/SCBA respirator, such as manufactured by Ranger, Survivair, Scott, or MSA. **Note: When in the fumigated area during the aeration procedure, approved respiratory protection must be worn until concentration of ProFume is confirmed not to exceed 1 ppm with an approved detection device.**

Only an approved detection device of sufficient sensitivity (LOD \leq 1 ppm), such as the INTERSCAN gas analyzer [Model GF 1900] or MIRAN vapor analyzer [SapphIRe], can be used to confirm a concentration of ProFume of 1 ppm or less. The Interscan gas analyzer GF 1900 must be calibrated within one month prior to use as a detection device. All other approved detection devices must be calibrated according to manufacturer recommendations. The concentration of ProFume must be monitored throughout the structure in the breathing zone. The structure or enclosure must remain posted for fumigation until cleared for reentry.

Commodities

Commodities that may be fumigated with ProFume are presented in the table below. Commodity tolerances are listed for sulfur fluoride and fluoride in 40 CFR Part 180. The following insects which infest the commodities listed below are controlled by ProFume: confused flour beetle, red flour beetle, sawtoothed grain beetle, warehouse beetle, Indian meal moth, Mediterranean flour moth, codling moth, navel orangeworm, granary weevil, rice weevil, and other moths and beetles.

Commodities: Dried Fruits, Tree Nuts, Cereals and Small Grains, and Cereal and Small Grain Processed Products

<i>Dried Fruits</i>	<i>Cereals and Small Grains</i>
Date	Barley, grain
Fig	Corn, field, grain
Plum, prune, dried	Corn, pop, grain
Grape, raisin	Oat, grain
Other dried fruit (e.g., apricots)	Rice, grain
	Wheat, grain
	Millet, grain
	Rice, wild, grain
	Sorghum, grain
	Triticale, grain
	<i>Cereal and Small Grain Processed Products</i>
	Corn, field, flour
	Corn, field, grits
	Corn, field, meal
	Rice, brown
	Rice, polished rice
	Rice, bran
	Rice, hulls
	Wheat, bran
	Wheat, flour
	Wheat, germ
	Wheat milled byproducts
	Wheat, shorts

Tree Nuts

Almond
Pecan
Walnut
Beechnut
Butternut
Cashew
Chestnut
Chinquapin
Filbert
Nut, Brazil
Nut, hickory
Nut, macadamia

Other

Pistachio

Fumigation Conditions for Commodities

- For normal atmospheric pressure fumigations, do not exceed a maximum cumulative dosage of 1500 oz-h/1000 cu ft (Concentration [oz/1000 cu ft] x Exposure Time [hours]).
- For vacuum fumigations, do not exceed a maximum cumulative dosage of 200 oz-h/1000 cu ft.
- When fumigating tanks, silos, etc. of stored bulk flour, empty or draw down flour to less than 3 feet deep. Wheat flour not removed from the fumigation area must be blended at a ratio of at least 10:1 or discarded to ensure wheat flour offered to consumers does not exceed commodity tolerances.

Preparation for Fumigation

Note: All flames, including pilot lights, must be extinguished. All electrical heating elements must be turned off or unplugged.

Prior to fumigation, the Fact Sheet for ProFume Gas Fumigant (Sulfuryl Fluoride) must be provided to the property owner/customer and it must be signed prior to fumigation. All persons, non-target animals, and desirable growing plants must be removed from the space to be fumigated. When monitoring, place gas sampling lines at representative areas within the fumigated space. Use re-circulation fans as appropriate to rapidly disperse fumigant throughout the structure or enclosure.

Do not fumigate food products that are not listed on this label. All drugs (including tobacco products) and medicinals (including those items in refrigerators and freezers) need to be removed prior to fumigation. Any food or feed in rigid plastic, glass, or metal containers with the original manufacturer's airtight seal intact can remain in the space to be fumigated.

Sealing

Good sealing is necessary for an effective fumigation. Details on tarpaulin, taped and other sealing methods are described below. For additional recommendations on sealing techniques, refer to the ProFume gas fumigant Fumigation Manual.

Tarpaulin Sealing

When tarping a building for a space fumigation or stacked commodity for an enclosure fumigation, use only materials that effectively confine ProFume, such as a vinyl coated nylon or polyethylene sheeting of at least 4 mil thickness. All seams must be sealed. The edges of the cover that contact the floor or soil must be sealed by techniques such as taping the tarp to the floor or placing sand or water snakes over the edges of the tarp. To minimize escape of fumigant through the soil and to avoid injury to nearby plants, wet soil (if not sufficiently moist) around the structure to act as a barrier for the fumigant. When possible avoid walking on tarped, fumigated material to maintain seal during the exposure period.

Taped and Other Spot Sealing

For fumigation enclosures that can be adequately sealed with materials such as plastic or tape, seal adequately around doors, windows, vents, and other openings. To minimize escape of fumigant through the soil and to avoid injury to nearby plants, wet soil (if not sufficiently moist) around the structure to act as a barrier for the fumigant.

To prevent excessive residues, minimize quantities of wheat flour in the structure or enclosure prior to fumigation. Likewise, special care should be taken to seal off non-target wheat flour storage areas prior to fumigation.

Connected Areas

A connected area is defined as any area connected with the space to be fumigated by construction elements that may allow passage of fumigant between the spaces. Any connected area must be vacated during the fumigation process unless it is isolated from the space to be fumigated by methods that prevent passage of the fumigant from the space to be fumigated into the connected area.

Note: Areas that have been isolated from the fumigated space must be vacated if required by state laws or regulations. When it is necessary to vacate areas that have been isolated, that area shall be considered as a fumigated space, and all applicable rules, regulations and label instructions apply, such as preparation, posting, securing, and aeration.

ProFume concentrations must be measured during the fumigation in any occupied connected space or structure until ProFume concentrations are ≤ 1 ppm to confirm that individuals in connected areas are not exposed to unacceptable ProFume levels. Use only an approved detection device of sufficient sensitivity, such as the INTERSCAN gas analyzer [Model GF 1900] or MIRAN vapor analyzer [SapphIRe], to confirm a concentration of ProFume of 1 ppm or less. Refer to the ProFume gas fumigant Fumigation Manual for additional information.

Securing Structure Entrances

To secure the structure against unauthorized entry during the fumigation, use a locking device or barricade on all exterior doors or doorways. A locking device or barricade must be demonstratively effective in preventing an exterior door or doorway from being opened using normal opening or entering processes by anyone other than the certified applicator in charge of the fumigation or persons in their on-site direct supervision. Consult state and local regulations for any supplementary instructions and local restrictions on securing against entry. Refer to the ProFume gas fumigant Fumigation Manual for additional information.

Posting of Fumigated Areas

All entrances and all sides of the fumigated structure or fumigated space, including vehicles, ships, stacks and chambers and any connected area not monitored must have warning signs. Do not allow entry by unprotected persons into fumigated area until the signs are removed. Signs must remain legible during the entire posting period. Warning signs should be placed in advance of the fumigation in order to keep unauthorized persons away. The warning signs must be printed, in English and Spanish, with:

- The signal word DANGER/PELIGRO and the SKULL and CROSSBONES symbol in red.
- The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
- The date and time of fumigation.
- Name of fumigant used.
- Name, address, and telephone number of the fumigation company and licensed/certified applicator.

Transfer of incompletely aerated commodity to a new storage site within the facility is permissible. However, the new storage site must have warning signs if breathing zones around the commodity contain 1 ppm or greater of ProFume. Workers who handle incompletely aerated commodity must be informed and appropriate measures must be taken (ventilation and wearing of SCBA) to prevent any exposure above 1 ppm.

Only a state licensed/certified applicator may authorize removal of warning signs. The warning signs may be removed only when the concentration of ProFume within the fumigated area is 1 ppm or less. Before introducing the fumigant, verify that all required safety equipment is available and in good working order. Refer to the ProFume gas fumigant Fumigation Manual for additional information.

Fumigation of Surface Ships in Port

Surface ships and barges may be fumigated with ProFume, but all aeration procedures must be completed before these vessels are allowed to sail. **Note:** Submarines and other below-the-surface ships must not be treated with ProFume. Only those persons involved in the fumigation may be on board during fumigation, including the aeration process.

The professional fumigator and the ship's captain (or owner) shall follow all applicable regulations including those listed in the Coast Guard, DOT, Title 46, Shipping, section Parts 147A.1-147A.43. Except for those persons involved in fumigation, no people, desirable plants, or pets may be on-board during fumigation.

The vessel must not be moved during the fumigation and aeration periods. If reentry is necessary before aeration is completed, positive pressure self-contained respiratory protection must be worn.

Stationary Vehicle Fumigation Preparation

Stationary vehicles should be prepared and sealed following general fumigation, tarpaulin and tape sealing instructions above. Trailers, trucks, containers, etc. may be fumigated with ProFume, but all aeration procedures must be completed before these are transported over public roads. Refer to the ProFume gas fumigant Fumigation Manual for additional information.

Note: All flames, including pilot lights, must be extinguished. All electrical heating elements must be turned off or unplugged.

Fumigation of Tarpred-Stack and Chambers Outdoors

For fumigation of tarpred-stacks or chambers outdoors, follow all instructions in this label and the ProFume gas fumigant Fumigation Manual for structures containing commodities.

Tarpred-Stack Fumigations Within Structures

ProFume may be used to fumigate stacked commodities by covering the commodity with highly fumigant-resistant tarpaulins and then sealing them to the subsurface to create a temporary fumigation chamber (tarpred-stack). Secure (see Securing Structure Entrances) and post warning signs (see Posting of Fumigated Areas) on enclosing structure. If applicable, follow instructions for Connected Areas above.

All personnel not trained or not involved in the fumigation must be vacated from the structure in which the tarpred-stack fumigation is occurring until the fumigation is completed and the structure has been cleared for reentry (see Aeration and Reentry sections below).

The indoor areas around the tarpred stack must be monitored for ProFume concentrations when fumigation workers, without proper respiratory protection (SCBA), are present within the structure. Perform air monitoring by utilizing a detection device with sufficient sensitivity such as an INTERSCAN gas analyzer [Model GF 1900] or MIRAN vapor analyzer [SapphIRe] to ensure that workers are not exposed to concentrations of ProFume exceeding 1 ppm.

No one is permitted to be in an area where the concentration is greater than 1 ppm without proper respiratory protection (SCBA). Refer to the ProFume gas fumigant Fumigation Manual for additional information.

Permanent Chamber Fumigations Within Structures

Fumigations with ProFume may be conducted in permanent fumigation chambers enclosed within, or connected to, a larger structure. A permanent chamber is defined as a durable hard-walled structure engineered specifically for fumigation that effectively confines ProFume.

Monitor indoor areas around the permanent fumigation chamber for ProFume concentrations during the fumigation, especially during introduction. No one is permitted to be in an area where the concentration is greater than 1 ppm without proper respiratory protection (SCBA).

Aerate ProFume from the chamber by venting the fumigant directly to the outside of the structure using a ventilation system that does not release ProFume into the structure in which the chamber is located. Refer to the ProFume gas fumigant Fumigation Manual for additional information.

Introducing the Fumigant

Do not apply for insect control when temperature at the site of the pest is below 40°F. This restriction does not apply when fumigating for rodents. To prevent damage, do not apply liquid fumigant directly to any surface within the fumigation area. Refer to Chapter 5 of the ProFume gas fumigant Fumigation Manual for more information on permissible temperature conditions.

ProFume is packaged as a liquid under pressure and requires a heat source for conversion of the liquid to a gas during introduction. The heat source can be the air around the introduction site or mechanical heat exchanging systems. Consult the ProFume gas fumigant Fumigation Manual and the Fumiguide* program for ProFume (ProFume Fumiguide) for fumigant introduction options and instructions. The introduction system must:

- Prevent breakdown or contamination of ProFume
- Confine ProFume until it is released into the fumigation area
- Prevent liquid sulfuryl fluoride from contacting surfaces which could be damaged or the commodity within the fumigation area
- Prevent a fog-out in the fumigation area. A fog-out is substantial condensation of moisture inside a fumigated structure that is caused by the air temperature dropping below the dew point.

ProFume must be introduced from the cylinder through a suitable leak-proof delivery system (hoses, connectors, gauges, solenoids, etc.) with a minimum burst pressure of 500 lb per square inch. It is recommended to:

- Release the fumigant into a large open space.
- Direct the fumigant into the blast of air from a fan(s) having a capacity of at least 1000 cu ft per minute per pound of ProFume released per minute.
- Introduce no more than 4 cylinders per introduction site.
- Have one introduction site per every 75,000 cu ft.

Damage to materials can occur if the rate of ProFume release exceeds fan capacity.

The flow of liquid gas in the introduction hose may be a source of static electricity. To prevent the risk of static sparking, securely attach a length of copper tubing with approved fittings to the end of the introduction hose. All tubing and connections must be compatible with liquid ProFume and have a burst pressure of at least 500 psi. Attach the copper tubing with a grounding wire to the fan cage frame or to a neutral ground. The copper tubing mounted at the end of the introduction hose must be securely attached to the fan or some other stable object.

Dosage and Exposure Time

The target dosage is the product of fumigant Concentration x Exposure Time (CT). However, the impact of concentration (C) and time (T) on control of the target pest varies and is more accurately represented by CⁿT. The Fumiguide Program for ProFume gas fumigant (ProFume Fumiguide) uses specific CⁿT formulas based on the pest, life stage, temperature, and exposure period to determine target dosages for specific fumigation scenarios. The maximum target concentration in the ProFume Fumiguide is 128 oz per 1000 cu ft (for all normal atmospheric pressure and vacuum chamber fumigations). The maximum target dosage for all normal atmospheric pressure (NAP) fumigations is 1500 CT (1500 oz-h/1000 cubic feet) and for vacuum chamber fumigations is 200 CT (200 oz-h/1000 cubic feet). Read the ProFume gas fumigant Fumigation Manual for additional instructions on calculating dosages using the ProFume Fumiguide. **Note:** Do not use this product without the Fumiguide Program for ProFume gas fumigant. The Fumiguide is part of the labeling for this product and must be used to calculate the dosage.

The target dosage can thus be calculated by inputting into the ProFume Fumiguide the target species, life stage, temperature, and exposure time. Then, to calculate the amount of fumigant to be introduced, input the estimated fumigant loss rate measured as half-loss time (HLT) and volume of the area to be fumigated. Based on the calculated target dosage, exposure time, HLT, and volume of the area to be fumigated, the ProFume Fumiguide will calculate the initial target concentration and amount of ProFume to be initially introduced.

For fumigation to control rodents, use sufficient gas to accumulate at least 36 ounce-hours following equilibrium, regardless of ambient air temperature.

Monitoring concentrations of ProFume within the fumigated area is recommended for fumigation accuracy. If monitoring, take fumigant concentration readings from the exposure area with an appropriate monitoring device such as a Fumiscope. Input these monitoring results into the ProFume Fumiguide to calculate the actual HLT. The ProFume Fumiguide provides the accumulated dosage and then will calculate any additional amount of fumigant and/or increase in exposure time necessary to achieve the target dosage. Add any necessary fumigant and/or extend fumigant exposure time to achieve the target dosage.

Efficacy

ProFume may be used to control infestations of insect and rodent pests of food, feed, commodities and the structures where these are stored or processed. Total insect control is possible under optimum environmental and fumigation conditions. However, for some less susceptible insects, egg stage tolerance combined with cool temperatures may limit the potential for total control of the infestation. Other contributing factors are fumigation process related including leaky structures, inadequate fumigant distribution, etc.

The target dosage must be calculated with the ProFume Fumiguide. Target species, life stage, temperature, and exposure time unique to each fumigation must be entered into the ProFume Fumiguide. The target insects for ProFume are: confused flour beetle, red flour beetle, sawtoothed grain beetle, warehouse beetle, Indian meal moth, Mediterranean flour moth, codling moth, navel orangeworm, granary weevil, rice weevil, and other moths and beetles.

Sequential Fumigations

Sequential fumigations are an alternative dosage strategy that may be used to control insect infestations in which eggs are present. Fumigate once at the dosage sufficient for control of the post-embryonic (larva, pupa, adult) stages. After any surviving insect eggs have hatched, but prior to these insects' maturation and deposition of new eggs, fumigate a second time, again at the post-embryonic life stage dosage.

Aeration and Reentry

Aeration

Aerate the enclosure or structure using active ventilation methods. Control the ventilation process to ensure workers and bystanders are not exposed to concentrations that exceed acceptable levels.

The perimeter of the fumigation area, especially downwind, must be monitored to ensure that sulfuryl fluoride concentrations are kept within acceptable levels outside the fumigation area. Refer to the ProFume gas fumigant Fumigation Manual for additional information on aeration by fumigation type, i.e., chambers, structures, enclosures, etc.

Fumigant may dissipate slower from bulk food commodity than ambient air. Actively aerate food commodity for a minimum of 24 hours prior to offering to consumers. Refer to the ProFume gas fumigant Fumigation Manual for additional information on Handling Un-aerated Commodities.

Reentry

No one shall be in fumigated areas if the level of ProFume is above 1 ppm unless wearing a NIOSH or MSHA approved positive pressure self-contained breathing apparatus (SCBA, not SCUBA) or combination air supplied/SCBA respirator, such as manufactured by Ranger, Survivair, Scott, or MSA. **Note: When in the fumigated area during the aeration procedure, approved respiratory protection must be worn until concentration of ProFume is confirmed not to exceed 1 ppm with an approved monitoring device.**

Only an approved detection device of sufficient sensitivity, such as the INTERSCAN gas analyzer [Model GF 1900] or MIRAN vapor analyzer [SapphIRe], can be used to confirm a concentration of ProFume of 1 ppm or less. The Interscan gas analyzer Model GF 1900 must be calibrated within one month prior to use as a detection device. All other approved detection devices must be calibrated according to manufacturer recommendations. The concentration of ProFume must be monitored in breathing zones. The structure or space being fumigated must remain posted for fumigation until cleared for reentry.

Measure the concentration of ProFume in the breathing zones of the structure or enclosure. When the concentration is measured to be 1 ppm, the structure or space being fumigated is cleared for reentry. If large amounts of bulk commodity are fumigated, the level of ProFume could increase in enclosed spaces after initially reaching 1 ppm, especially if active aeration is discontinued. The level of ProFume must be monitored to make sure exposure does not exceed 1 ppm.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies.

Warranty Disclaimer

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