

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-767)
WASHINGTON, DC 20460

EPA REGISTRATION NO.
11195-1

DATE OF ISSUANCE
JUL 17 1982

TERM OF ISSUANCE

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION
(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT
The Fruit Protector/Concentrated Formula
1105109

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Snowden Enterprises, Inc.
P.O. Box 751
Fresno, CA 93712

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

1. The registrant is advised that the registration of this pesticide is subject to the provisions of section 2(c)(1)(B) of the Act.

2. The registrant is advised that the registration of this pesticide is subject to the provisions of section 2(c)(1)(B) of the Act.

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6. The registrant is advised that the registration of this pesticide is subject to the provisions of section 2(c)(1)(B) of the Act.

7. The registrant is advised that the registration of this pesticide is subject to the provisions of section 2(c)(1)(B) of the Act.

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ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE JUL 17 1982

- b. On the left panel, under the word "DANGER", insert the statement:

Pressurized Liquid Gas

- c. Revise "Physical or Chemical Hazards" to read:

Physical and Chemical Hazards

- d. Revise the first sentence un "Pysical and Chemical Hazards" to read:

Sulfur Dioxide is a Non-Flammable, Whitish Colored Gas of Pungent Odor

- e. Add the sentence "Sulfur dioxide can be sensed by taste at low level concentrations" to the end of the "Physical and Chemical Hazards" paragraph.

4. Make the following changes to the supplemental product labeling associated with this pesticide registration before you release the product for shipment:

- a. On page 2, insert the sentence "Wear protective clothing, gloves and boots when handling this pesticide product" at the beginning of the "Protective Clothing" paragraph.
- b. On page 3, revise sentence #1 under the "Placarding of Fumigated Warehouse Areas" instructions to read:

The signal word DANGER/PELIGRO in 2" letters.

- c. The storage procedures detailed on page 4 for this particular product are acceptable.
- d. On page 8, under the heading "Truck Fumigation" insert the sentence: Trailers fumigated with SO₂ must be held for 24 hours before releasing for shipment" at the end of the paragra

5. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

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

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

Ruth G. Douglas

A handwritten signature in cursive script, appearing to read 'R. G. Douglas'.

Product Manager (32)
Antimicrobial Program Branch
Registration Division (h7505C)

Enclosures

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Pressurized Liquid Gas ← insert
HAZARDOUS VAPOR AND LIQUID - LIQUID CAUSES BURNS OF SKIN AND EYES.

Do not breathe vapor in high concentration. Do not get liquid in eyes, on skin or clothing. Do not take internally. Wear eye and skin protection necessary to prevent contact when handling. Wash thoroughly after handling and before eating or smoking.

Persons with a history of respiratory problems should avoid exposure to the product.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Do not spill or empty into streams, ponds, or any other body of water. Do not contaminate water or wetlands by cleaning of equipment, disposal of wastes, or direct application.

PHYSICAL OR CHEMICAL HAZARDS

insert
50% non-flammable, the white colored gas of pungent odor.
CORROSIVE IN PRESENCE OF WATER. DO NOT SPRAY WATER ON ANY LEAKING CONTAINER. WATER WILL MAKE PRODUCT CORROSIVE AND MAY INCREASE VENTING.

STORAGE AND DISPOSAL

7 SO2 will be used by tank at low level concentrations.
Storage. Store in a locked, dry, level, well-ventilated area at normal room temperature. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage or disposal. Do not store near flammable material near the inlet of a ventilating or air conditioning unit, near any source of direct heat or in a subsurface location. Store cylinders upright, secured to a rack 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. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

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 before returning to supplier. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose.

Disposal. Pesticide wastes are toxic. Proper disposal of excess pesticide, spray mixture, or sludge is a violation of Federal law. If these can not be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Return empty cylinders freight collect to Snowden Enterprises, Inc. location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines return empty and re-pressurized cylinders only after consulting Snowden Enterprises, Inc. for proper shipping instructions.

THE FRUIT DOCTOR

COMPRESSED SULFUR DIOXIDE

ACTIVE INGREDIENT	BY WEIGHT
Sulfur dioxide	100.00%
TOTAL	100.00%

KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO
HARMFUL IF SWALLOWED, DO NOT SWALLOW OR INHALE
See Additional precautions on side panel

PRACTICAL TREATMENT: (First Aid)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Remove exposed person to fresh air away from contaminated area.

If breathing has stopped, give artificial respiration immediately. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Trained personnel should administer oxygen as soon as possible.

If breathing has not stopped, position person in chair or have person lie down with head and trunk elevated to 45-60° position. Encourage slow, deep, regular breathing, prolonging expiration. Trained personnel should administer oxygen as soon as possible. Keep person warm and at rest. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. DO NOT apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately.

IF IN EYES: Hold eyelids open and flush with a steady, gentle tepid stream of water for at least 15 minutes. Completely flush all eye and lid tissue. Do not apply any chemical or ointment to the eyes. Seek medical attention immediately. If physician not readily available, continue to flush eyes with tepid water for an additional 15 minutes.

IF SWALLOWED (LIQUID SULFUR DIOXIDE): DO NOT give anything by mouth to an unconscious or convulsing person. Give person 1-2 glasses of milk or water to dilute. DO NOT induce vomiting. Seek medical attention immediately.

EPA REG. NO. 11195

EPA EST. NO. 11195-CA-1

PRECAUCION AL USUARIO: No listed no lee reglas, no use este producto hasta que la etiqueta le haya sido explicado completamente.

Manufactured for
Snowden Enterprises, Inc.
P.O. Box 751
Fresno, California 93712

Net Contents See Attached Tag lbs.

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Under the Federal Pesticide, and In amended, for registered under

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1. Snowden Enterprise consists of the ingred for the purpose stated with the directions un other than an officer. Authorization must b warranty, guarantee or d

2. Because the time, p conditions and normal storage are beyond Snow limited to replacement price. In no event an consequential damages.

Hazardous liquid and vapor under pressure. Inhalation may be fatal or cause serious acute illness. Prolonged or repeated exposure may cause impaired lung function. Do not breathe vapor. Liquid or excessive vapor can cause serious skin or eye injury. Do not get liquid on skin, in eyes or on clothing.

Sulfur dioxide is an eye, nose, and throat irritant even at low levels. If tearing or upper respiratory tract irritation symptoms occur, leave fumigation area immediately.

It is recommended that persons with a history of respiratory problems should not be exposed to sulfur dioxide. Medical assessments of applicators and other persons who will be regularly exposed to sulfur dioxide should be conducted prior to employment and at 1 - 2 year intervals.

STATEMENT OF PRACTICAL TREATMENT

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

IF INHALED: Remove exposed person to fresh air away from contaminated area.

If breathing has stopped, give artificial respiration immediately. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Trained personnel should administer oxygen as soon as possible.

If breathing has not stopped, position person in chair or have person lie down with head and trunk elevated to a 45-60° position. Trained personnel should administer oxygen as soon as possible. Keep person warm and at rest. Seek medical attention immediately.

IF ON SKIN: Immediately flush contaminated skin with copious amounts of running water for at least 15 minutes. Continue as required to control burning sensation. Remove clothes while in shower to ensure irrigation of all contaminated skin. **DO NOT**

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apply any chemicals or ointments/lotions to damaged skin. Seek medical attention immediately.

IF IN EYES: Hold eyelids open and flush with a steady, gentle, tepid stream of water for at least 15 minutes. Completely flush all eye and lid tissue. Do not apply any chemical or ointment to the eyes. Seek medical attention immediately. If a physician is not readily available, continue to flush eyes with tepid water for an additional 15 minutes.

IF SWALLOWED (LIQUID SULFUR DIOXIDE): DO NOT give anything by mouth to an unconscious or convulsing person. Give person 1-2 glasses of milk or water to dilute. DO NOT induce vomiting. Seek medical attention immediately.

DIRECTIONS FOR USE

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

This fumigant is a hazardous material and must be used only by individuals trained in its proper use. Before using, you must read and obey all label precautions and directions.

All persons working with this fumigant must be knowledgeable about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (e.g., warehouses, cold storage rooms, trucks, vans, boxcars, and other transport vehicles), it is important to follow requirements for applying Category I materials. It is the registrants recommendation that two persons trained in the use of this product be present at all times during introduction of the fumigant through the aeration period.

Wear protective clothing, gloves, boots when handling the product.
PROTECTIVE CLOTHING - If braided hoses are in place and connections have all been checked, wear a full face mask when making gas applications.

If using non-braided hosing, wear full-body clothing impervious to sulfur dioxide, and use gloves and boots that are impervious to sulfur dioxide. Wear goggles and SO₂ NIOSH/MSHA approved respirator when making SO₂ gas applications. Contact lenses should not be worn.

RESPIRATORY PROTECTION - If the concentration of sulfur dioxide in the worker area, as measured by a pump and appropriate detector tubes, does not exceed 2.0 ppm, no respiratory protection is required. Examples of detectors are

Draeger handpump and appropriate detector tube, Kitagawa or Sensidyne syringe type samplers with appropriate detector. The manufacturer's instructions provided with the measuring device should always be followed for the detector's correct use.

If the 2.0 ppm concentration is exceeded at any time, all persons working in the fumigation area must wear a NIOSH/MSHA approved full face respirator. This type mask may be used for short exposures of very limited durations, but user must be aware of possible overloading in unmeasured concentrations of SO₂. A NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied SCBA respirator should always be available for emergencies.

Placarding Of Fumigated Warehouse Areas

Before fumigation, the applicator must placard or post all entrances to the fumigated area with signs bearing the following statements in English and Spanish:

1. The signal word DANGER/PELIGRO *in 3" letters.*
2. The statement, "Area under fumigation, DO NOT ENTER/ NO ENTRE.
3. The date and time of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

Any person who transfers a treated commodity to another site without aeration must ensure that the new site is placarded until the air around the commodity is below the threshold concentration (2.0 ppm).

Remove placards when the concentration of sulfur dioxide in the treated site is below 2.0 ppm as determined by use of a direct detection device.

Truck, Van, Railcar Fumigation

The applicator must show on the manifest accompanying the load that the trailer has been fumigated with SO₂. The statement on the manifest must show the following:

1. Trailer fumigated with SO₂.
2. The date and time of fumigation.
3. Name of fumigant used.

Aeration And Re-entry

After fumigation, treated areas must be aerated until the level of sulfur dioxide is below 2.0 ppm as determined by use of a direct detection device (such as Draeger hand pump and appropriate detector tube or Kitagawa or Sensidyne syringe

detection device or an equivalent device). Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA respirator).

Storage, Handling, and Disposal

Storage - Store in a secure location properly labeled for Category I pesticides. Before use, locate the bottle labeled for the room to be fumigated which will show the room number and weight of SO₂ in the container, move this container to the room matched to the container for fumigation. Do not remove bonnet or safety cap protecting valve before use. Replace bonnet or safety cap when not in use. Do not contaminate water, food, or feed by storage or disposal. Do not store near flammable material, near the inlet of a ventilating or air conditioning unit, near any source of direct heat, nor in a subsurface location.

) Store cylinders upright, secured to a rack or wall or placed in specially designed cases 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.

When cylinder is empty after use, close valve by turning to the right until tight, disconnect lines and replace protection bonnet before returning to supplier. Only Snowden Enterprises, Inc. is authorized to refill cylinders. Do not use cylinders for any other purpose.

Disposal - Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Return empty cylinders pre-paid to Snowden Enterprises, Inc.'s location from which shipment was made. Return empty and/or partial cylinders only after consulting Snowden Enterprises, Inc., for proper shipping instructions.

Spill and Leak Procedures - Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of sulfur dioxide is determined to be less than 2.0 ppm as determined by use of a direct detection device.

COMMODITY FUMIGATION DIRECTIONS

Follow all safety procedures specified on the label and in this technical brochure.

This product may be applied to the commodity in enclosed stationary spaces (fumigation, pre-cooling, or cold storage rooms). Applications may be made to the commodity in the following transport vehicles: trucks, vans, trailers, and railcars.

Do not apply/aerate in a manner to allow drift onto areas occupied by unprotected humans or beneficial animals. Do not release fumigant into occupied work area.

Do not apply so that liquid sulfur dioxide will come in contact with the fruit. Liquid sulfur dioxide on the fruit will cause bleaching of grapes. Enough fans should be operating in the fumigation space to volatilize all of the liquid sulfur dioxide and provide a uniform concentration throughout the room. It is recommended that an air volume of at least 0.5 times the volume of the fumigated space should be moved by the operating fans during each minute of gassing.

For the application, load the commodity to be fumigated into the treatment space. The lug boxes should be oriented such that the openings in each box are aligned with openings in the other boxes to promote air flow through the fruit in the boxes. Pallets of fruit should be stacked to promote air flow between them. Turn on circulating fans, close all vents, exhaust ports, and vents into the space. Vaporize the liquid sulfur dioxide by releasing the liquid SO_2 into the house hose system used for SO_2 . The hoses should be ducted into open spaces where air movement is unrestricted. If spraying in front of blower or fan equipment, be sure none is splashed onto the equipment or severe corrosion will result.

PROPOSED USE DIRECTIONS

Direction For Use

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

GRAPES

For post-harvest use only on grapes held in cold storage. To suppress spread of grey mold disease caused by Botrytis cinerea. The warehouse operator should work to minimize conditions that promote grey mold such as bruised or crushed berries, excess bunch shatter, etc.

WAREHOUSE STORAGE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation should be done before shipment, or in transit, if fruit has been gassed three (3) or fewer times. For fruit gassed in the warehouse more than three times, 12 or more hours should be allowed to elapse before shipment.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

RATE OF APPLICATION: It is not a use inconsistent with this label to use less than recommended amounts, but it should be realized that using less than the stated rates may reduce efficacy.

INITIAL FUMIGATION: Use 3/4 to 1% gas concentration based on measured volume of the cold storage room or fumigation chamber.

MAINTENANCE FUMIGATION: Use 1/4 to 1/2% gas concentration based on measured volume of the cold storage room or fumigation chamber.

TREATMENT TIME: Gas treatment should last for 20-30 minutes starting when gas is initially introduced into the room. Fumigation should be terminated by venting the room or scrubbing the recirculated air. It is essential that venting be started at or before 30 minutes after gassing initiation or excess residue may result. When venting is initiated, vigorous air movement is required to either exhaust the SO₂ through a vent or vents on the roof, or through a water scrubber. Venting or scrubbing must draw all SO₂ saturated air from the spaces between the berries within the following 20-30 minutes. This requires complete air movement and air replacement in the room at the rate of at least 0.1 to 0.3 of the cubic volume of the room per minute for a duration of 20-30 minutes. Measurement of exhaust fan capacity should be periodically checked to maintain this or a greater air movement efficiency. If a water scrubber system is used, it is essential that sufficient scrubbing surface is available to remove the SO₂ from the recirculating air to equal the rate of removal by direct venting.

APPLICATION - COLD STORAGE ROOM OR FUMIGATION CHAMBER: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size).

Connect the bottle to a gassing system that has been previously evaluated and accepted by the chemical manufacturer for the designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc., system.

HIGH FREQUENCY - LOW DOSAGE TREATMENT - WAREHOUSE

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a three times per week interval (2 days, 2 days, 3 days). Seedless and seeded varieties may be fumigated on this high frequency, low dosage basis as long as they are in storage.

INITIAL FUMIGATION: Use 3/4 to 1% gas concentration based on the measured volume of the cold storage room.

MAINTENANCE FUMIGATION: Use 200 to 400 ppm gas concentration based on the measured volume of the cold storage room.

TREATMENT TIME: Gas treatment will last until the room concentration is determined by measurement to be below 2.0 ppm. Vigorous air movement is required during gassing and for approximately 30 minutes following gas introduction. No venting is required with this procedure.

APPLICATION - COLD STORAGE ROOM: Obtain from Snowden Enterprises, Inc., or a designated distributor a pre-weighed, filled cylinder that has been filled for a predesignated measured room (the filling weight is based on the room size). Connect the bottle to a previously validated gassing system installed in a designated room. When everything is ready for fumigation, open the valve and leave it open until the cylinder is empty. Close the valve and uncouple the cylinder from the system. Return the cylinder to Snowden Enterprises, Inc.

IN-HOUSE FOLLOW-UP PROCEDURE: If you use this method, it is a requirement of this gassing method to examine your fruit for mold growth for the duration of cold storage. Fruit examination should occur at least once weekly.

Small Cylinder

PROPOSED USE DIRECTIONS (Right side of panel)

Directions For Use:

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

GRAPES

For post-harvest use only on grapes held in cold storage to suppress spread of grey mold caused by Botrytis cinerea.

APPLICATION TIMING: SO₂ fumigation should occur as soon after harvest as is practical. For fruit to be stored for extended periods, initial gassing should occur on the day of harvest and follow at a 7-10 day interval. For fruit being shipped to market soon after harvest, SO₂ fumigation can be applied in a truck or railcar if the grapes have been gassed three (3) or fewer times.

Seeded varieties may be fumigated on a 7-10 day interval up to 20 times. Most seedless varieties may be fumigated on a 7-10 day interval up to 15 times, but the Thompson Seedless variety should not be fumigated more than 12 times.

For warehouse use, refer to Technical Information Bulletin.

TRUCK FUMIGATION

insert: "Trailer fumigated with SO₂ must be held for 24 hours before releasing for shipment." ←

Pre-install hose kit in the truck trailer through the drain line at the end of the trailer and under the pallets supporting the fruit. Close the trailer doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the hose, remove hose from drain and return to container case for return to Snowden Enterprises, Inc., system. See directions on container case for additional directions for installing truck fumigation kit.

RAILCAR FUMIGATION

Pre-install hose kit in the railcar under the pallets supporting the fruit. Close the doors, connect the pre-weighed container to the hose end. Turn the cylinder upside down and open the valve; leave in this position 1-2 minutes or until empty. Close valve, disconnect cylinder from the kit hose, and return cylinder to container case for return to Snowden Enterprises, Inc., system.

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