

29 APR 1986

Van Waters & Rogers
Division of UNIVAR
2256 Junction Avenue
San Jose, CA 95131

Gentlemen:

Subject: NAMCO Namfume
EPA Registration No. 550-131
Your Amendment Application Dated March 15, 1986

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

- 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 this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptable of this condition.

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

Sincerely yours,

Jeff Kempter
Acting Product Manager (32)
Disinfectants Branch
Registration Division (78-767C)

Enclosures

BEST AVAILABLE COPY

86990:Jenkins:C-1:KENCO:4/25/86:5/5/86:1:VO
CONCURRENCE

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SURNAME	Jenkins						
DATE	4-28-86						

AGRICULTURAL CHEMICAL
Do not ship or store with food, feeds, drugs or clothing

05014104

CAUTIONARY STATEMENTS FOR HAZARDOUS MATERIALS AND DOMESTIC ANIMALS

DANGER POISON PELIGRO

PRECAUTIONAL STATEMENTS: Avoid contact with skin, eyes, nose, mouth, and clothing. Inhalation may irritate the respiratory tract, and even at low levels can cause partial irritation to the eyes, producing tearing. If these symptoms occur, leave the fumigation area immediately.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and wildlife. Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

PHYSICAL HAZARDS: Corrosive under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate containers. Exposure to temperatures above 130° may cause bursting.

CHEMICAL HAZARDS: Do not mix application devices made of aluminum, magnesium or their alloys.

DIRECTIONS FOR USE

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

To be applied only by or under the supervision of pest control operators or other trained personnel responsible for pest control programs.

NOTICE TO BUYER/USER: State and/or local laws and regulations restrict the use of the material in many localities. Consult local pesticide authorities for regulations restricting your proposed usage. Comply with laws and regulations.

STORAGE & DISPOSAL

STORAGE AND HANDLING: Store in original container with label intact. Store in a cool, dry place. Do not store in areas where children or animals can have access. Do not store in areas where food, feed, or clothing is stored.

SPILL AND LEAK PROCEDURES: If a spill or leak occurs, stop the application immediately. Apply water to the spill to dilute and remove the material. If the spill is large, notify the appropriate authorities. Do not use high-pressure water to clean up the spill.

DISPOSAL: Containers must be disposed of in accordance with local, state, and federal regulations. Do not reuse containers for any other purpose.

See attached pamphlet for directions and precautions.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THIS MATERIAL OR THE USE OF THIS PRODUCT OTHER THAN INDICATED ON THE LABEL. BUYER ASSUMES ALL RISK OF USE AND OR HANDLING OF THIS MATERIAL WHEN SUCH USE OR HANDLING IS CONTRARY TO LABEL INSTRUCTIONS.



RESTRICTED USE PESTICIDE
FOR RETAIL 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

NAMCO

Namfume (METHYL BROMIDE ODORIZED WITH 1/2% CHLOROPICRIN)

For Use As An Aid In The Control Of Structural Pests, Household Insect Pests, And As A Pre-Plant Soil Treatment.

ACTIVE INGREDIENTS: Methyl Bromide 99.5% Chloropicrin 0.5%

KEEP OUT OF REACH OF CHILDREN

DANGER POISON PELIGRO

PRECAUTIONAL STATEMENTS: Avoid contact with skin, eyes, nose, mouth, and clothing. Inhalation may irritate the respiratory tract, and even at low levels can cause partial irritation to the eyes, producing tearing. If these symptoms occur, leave the fumigation area immediately.

STATEMENT OF PRACTICAL TREATMENT: FIRST AID

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

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm-in method, not mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes, jewelry, and any other items on skin. Wash contaminated skin and thoroughly with soap and water.

If in eyes: Hold eyelids open and wash with clean water for at least 15 minutes.

NOTE TO PHYSICIAN: Early symptoms of overexposure are irritation, headache, nausea and vomiting, weakness and collapse. Lung edema may develop in 2 to 48 hours after exposure, accompanied by cardiac irregularities; these effects are the usual cause of death. Repeated overexposures can result in blurred vision, staggering gait and mental confusion, with probable recovery after period of the exposure. Some bromide levels suggest the occurrence, but not the degree, of exposure. Treatment is symptomatic.

RECEIVED with COMMENTS in EPA Letter Dated:



APR 23 1986

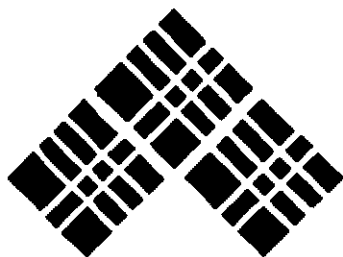
Manufactured By **Van Waters & Rogers** division of Univar

SAN MATEO, CA 94403

551-131

EPA Reg No 550-131-AA
EPA Est No 550-CA-1

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On skin: Immediately remove contaminated clothing, shoes, jewelry, and any other item on person. Wash contaminated skin area thoroughly with soap and water.

In eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

NOTE TO PHYSICIAN: Early symptoms of overexposure are dizziness, headache, nausea and vomiting, weakness and collapse. Lung edema may develop in 2 to 48 hours after exposure, accompanied by cardiac irregularities; these effects are the usual cause of death. Repeated exposures can result in blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Blood bromide levels suggest the occurrence, but not the degree, of exposure. Treatment is symptomatic.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS

Extremely hazardous liquid and vapor under pressure. Inhalation may be fatal or cause serious acute illness or delayed lung, nerve or brain injury. Do not breathe vapor. Liquid or vapor can cause serious skin or eye injury which may have a delayed onset. Do not get liquid on skin, in eyes or on clothing.

This product contains chloropicrin as a warning odorant. Chloropicrin may be irritating to the upper respiratory tract, and even at low levels can cause painful irritation to the eyes, producing tearing. If these symptoms occur, leave the fumigation area immediately.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and wildlife. Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

PHYSICAL HAZARDS: Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130° F may cause rupture.

CHEMICAL HAZARDS: Do not use application devices made of aluminum, magnesium or their alloys.

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Manufactured By
Van Waters & Rogers
division of **Univar**

ACCEPTED
with COMMENTS
in EPA Letter Dated:

San Mateo CA 94403

05048405

(rev. 3/86) JP
APR 29 1986

EPA Reg. No. 550-131-AA

Under the Federal Insecticide,
Fungicide and Rodenticide Act
24 U.S.C. 1461-1469
DIRECTIONS FOR USE

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

To be applied only by or under the supervision of pest control operators or other trained personnel responsible for pest control programs.

STORAGE & DISPOSAL

STORAGE AND HANDLING: Store in a dry, cool, well ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage.

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

DISPOSAL: Do not contaminate water, food, or feed by disposal.

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

SPILL AND LEAK PROCEDURES: Evacuate immediate area of spill or leak. Applying water to

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AERATION OF STRUCTURE: This product is a moderate concentration of the warning agent — chloropicrin — to odorize the typical structure under normal use situations.

RELEASING THE FUMIGANT: Release the fumigant from outside the area to be fumigated. The fumigant may be released in either the liquid or gaseous state. 1) Liquid fumigant should be led from the shipping container into the structure using suitable leak proof tubing. One quarter inch copper or polyethylene tubing is satisfactory. The outlet of the tubing should be immersed in an evaporating pan to prevent the liquid fumigant from dripping or spraying on furniture, rugs, walls, etc. 2) Gaseous fumigant may also be released from the structure by passing the liquid fumigant through a suitable heat exchanger. Since it is the capacity of the heat exchanger and the size of the tubing in which it flows that determine the rate of release, any size tubing is permissible provided the tubing material is resistant to both liquid and gaseous fumigant and the pressures and heat created. The flow rate of the liquid fumigant should be regulated so that the gaseous fumigant is available throughout the end of the shooting tube.

In either case the point where the liquid or gaseous fumigant is released should be in a large area within the structure. For the average structure the entire amount may be released in one area, but for large structures release it at two or more locations so chosen as to insure even distribution of the fumigant. For best results and distribution of the fumigant (where power is available) run a suitable fan during the application and continue to run it until the application is finished.

POSTING: See GENERAL PRECAUTIONS on page 1.

AERATION: Begin aeration by removing all seeds and planting materials and all other vital operations. A simple structure will typically take at least 2 hours to aerate with normal air movement passing through it. When positive air movement is provided (i.e. a moderate breeze or ventilation fans) the aeration period may be reduced by as much as 50%. The completeness of aeration is to be determined by use of a suitable detector for the fumigant.

USE PRECAUTIONS

This product may react with some substances to cause unpleasant odors or other deleterious effects. For this reason the following list is provided as a guide to those materials which should not normally be exposed to this product. This list is not necessarily complete.

- (1) Foodstuffs — (a) Iodized salt. (b) Fatty acids, flour, etc. Any kind of material that may contain reactive sulfur compounds such as some soap powders, some baking sodas and some window cleaning materials. (c) Fresh fruit and vegetables.
- (2) Certain rubber goods — (a) Spunging rubber. (b) Leather goods such as riding boots, pillows, cushions and mattresses.
- (c) Rubber stamps and other similar forms of recreational toys.
- (3) Furs, horsehair and pelts, especially leather shoes.
- (4) Leather goods — particularly white and any other leather goods stained with sulfur processes.
- (5) Woollens — extreme caution should be used with the fumigant on any Angora, alpaca, mohair, and some adverse effect has been noted on the fumigation of woollen suits, coats, blankets, flannel, woollen suits, sweaters, shawls and woollen yarn.
- (6) Viscose rayons — those rayons processed or finished by a process in which carbon disulfide is used.
- (7) Paper — (a) Silver-plating papers. (b) Certain writing papers, coated by sulphur dioxide fumes.
- (8) Photographic chemicals — (This does not mean cameras, film, but photographic chemicals used in dark rooms.)
- (9) Rug padding.
- (10) Cinder blocks or mated concrete and cinder blocks used as a support for plants.
- (11) Any materials that may contain reactive sulfur compounds.
- (12) Charcoal materials — of arcaul adsorbs this product and thereby not only carbonates the charcoal but also reduces the gas concentration to a point where an adequate fumigant concentration is not obtained.
- (13) Seeds and buds that are to be used for planting.
- (14) Pets, fish and birds.
- (15) Living plants or nursery stock.

CLEAN-UP OF PLANT STAKES

TREATMENT OF PLANT STAKES FOR "CLEAN-UP" PRIOR TO USE: Treat with 10 pounds of this product per 1000 cubic feet under tarp. Minimum exposure time should not be less than 48 hours. Contact your County Agricultural Commissioner for additional directions and instructions.

ORCHARD & VINEYARD PLANTING SITE FUMIGATION

This product may be used as an aid in controlling nematodes, citrus burrowing and root-knot nematode, fungal diseases (*Armillaria mellea* — Oak Root Fungus, *Phytophthora* etc.) and the white and grey root-knot nematodes and weeds in land to be planted or replanted to deciduous fruits and nuts, citrus and ornamentals, where the CNCPs will NOT BE HARVESTED FOR A PERIOD OF AT LEAST 24 MONTHS.

RATES & PRECAUTIONS:

FOR CITRUS, BURROWING AND ROOT KNOT NEMATODE: Apply 1 1/2 to 2 pounds per 100 square feet.

PHYTOPHTHORA ROOT ROT: Apply 1 1/2 to 2 pounds per 100 square feet. Do not use any exposure less than 10 days.

OAK ROOT FUNGUS (*Armillaria mellea*): This may be accomplished by allowing weeds to grow over with the fumigant and by planting a crop of Sudan grass in the spring and withholding moisture throughout the summer in the fall. This should be fully prepared as best as possible elsewhere. Rates vary from 1 to 1 1/2 pounds in sandy soils to 2 pounds per 100 square feet in heavy soils. Plant and soils high in organic matter should not be fumigated for *Armillaria*. NOTE: Complete eradication of *Armillaria* is difficult and rarely achieved. Retreatment of localized areas should be made as necessary.

APPLICATION METHODS:

BACKHOEING AND AUGERING: Remove soil to a depth of 12 inches and broadcast the material with the free-fallen applicator tube or free site injector. Fill hole and release end of the applicator into the soil just inside the site. After removal of applicator prevent too rapid escape of fumigant by tamping or compacting the soil tightly.

TREE SITE INJECTOR: Insert the injector in the soil as possible as close to the trunk of the tree. Tamp soil tightly around injector to minimize escape of fumigant from soil. Release end of the applicator into the soil just inside the site and move away from the injector of the fumigant. See the label for a detailed illustration of the use of this method.

TARPING: Work up about an area 10 x 10 feet in depth. Break the soil and break up the applicator into an evaporating container in the center of the site. Push the other end of the applicator into the soil just inside the area to be treated. The tarp should be supported above the soil surface with the 1/2 inch x 2 square inch x 1/2 inch wooden slats. At the end of the application, the container is to be left in place for 4 days.

TRACTOR DRAWN INJECTION EQUIPMENT: This method is available for use in large areas. It should be applied as closely as possible 30 inches minimum and 10 feet maximum from the edge of the area to be treated. The material, not less than 20 inches deep from the soil surface and not more than 10 inches wide. The material should be cut packed (not permitted in California) or covered with a gas tight tarpaulin more than 10 inches wide. The tarpaulin should be allowed to remain in place for at least 7 days. Strip fumigation is permissible.

STRIP FUMIGATION: To aid in the establishment of a new vineyard or orchard with young wild populations and nematodes, apply the fumigant at the rate of 1 1/2 to 2 pounds per 100 square feet in the rows of the area to be treated centering on the future stake line. Inject the fumigant using tractor drawn equipment. The vines should be covered immediately with a gas tight tarpaulin. Note: This method is most effective when the soil is moist and worked to a good condition prior to tree planting.

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ORCHARD & VINEYARD PLANTING SITE FUMIGATION

This product may be used as an aid in controlling nematodes (root-knot, burrowing and root-knot nematode), fungus diseases (*Armillaria mellea* - Oak Root Fungus, *Phytophthora* root and crown rot) and other soil-borne organisms and weeds in and to be planted or replanted to deciduous fruits and nuts, citrus and vineyards. **WRITE THE CROPS WILL NOT BE HARVESTED FOR A PERIOD OF AT LEAST 24 MONTHS.**

RATES & PRECAUTIONS:

FOR CITRUS, BURROWING AND ROOT KNOT NEMATODE: Apply 1 to 1.2 pounds per 100 square feet.

PHYTOPHTHORA ROOT ROT: Apply 1 to 2 pounds per 100 square feet and a 4 day exposure using tarping.

OAK ROOT FUNGUS (*Armillaria mellea*): To facilitate deep penetration to the fumigant the subsoil should be as dry as possible. This may be accomplished by allowing weeds to grow either without irrigation or by planting a crop of Sudan grass in the spring and withholding moisture throughout the summer. In the fall the soil should be further prepared as described elsewhere. Rates vary from 1 to 1.2 pounds in sandy soils to 2 pounds per 100 square feet in clay loam soils. Peat and soils high in organic matter should not be fumigated for *Armillaria*. NOTE: Complete eradication of *Armillaria* is difficult and rarely achieved. Retreatment of localized areas should be made as necessary.

APPLICATION METHODS:

BACKHOEING AND AUGERING: Remove soil to a depth of 12 inches or as desired back to hole width then insert applicator tube or tree site injector and release entire dosage of fumigant for 100 square feet tree site. After removal of applicator prevent too rapid escape of fumigant by tamping or compacting soil or tarping.

TREE SITE INJECTOR: Insert the injector as far as possible at least 18 inches into the soil. Tamp soil lightly around injector to minimize escape of fumigant from soil. Release entire dosage of fumigant for 100 square feet tree site and move away from the injector until fumigant is completely released. Remove injector and seal hole with soil.

TARPING: Work up soil in an area 10 x 10 feet to a depth of 2 feet. Place one end of the applicator into an evaporating container in the center of the site. Run the other end of the applicator tube beyond the area to be tarped. The tarp should be supported above the soil surface within the site and sealed securely along all edges with soil. Attach the applicator tube to container. Release fumigant at 2 inch intervals and seal edge of tarp. After 24 hours the tarp should be removed and the soil surface should be left in place for 4 days.

TRACTOR DRAWN INJECTION EQUIPMENT: Fumigation of the soil should be ripped as deeply as possible 30 inches minimum and further worked to eliminate clods and debris prior to fumigation. Inject the material not less than 20 inches deep from chassis spaced not more than 3 to 4 feet apart. The area should be cut packed (not permitted in Oak formal) or covered with a gas tight tarpaulin immediately after injection. The tarpaulin should be allowed to remain in place for at least 7 days. Strip fumigation is permissible.

STRIP FUMIGATION: To aid in the establishment of grape vineyards and with high weed populations and nematodes, apply the fumigant at the rate of 300 to 400 pounds per acre (200 to 300 lbs per acre) on the basis of a 100 foot treated centering on the future stake line. Inject the fumigant using tractor drawn equipment to 12 inches deep and cover immediately with a gas tight tarpaulin. Note: This method is most effective when the soil is moist and worked to a selected condition prior to treatment.

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SEED AND PLANT BED FUMIGATION

Preplant treatment of soil or other planting media with this product will aid in the control of the following soil-borne pests: insects (weevils), nematodes (meadow or lesion root-knot, citrus strip stick, by root dagger, cyst formers), soil diseases (Verticillium and Fusarium wilt, damping off, some broadleaf and grassy weeds and their seeds).

PREPARE SEED OR PLANT BED AS YOU WOULD FOR PLANTING. The soil of areas to be treated should be worked into a fine loose condition just prior to treatment. Soil should be free of clods and unbroken pieces of sod except in sandy soils. The fumigant will effectively penetrate only as deep as the soil is properly worked except in loose soils.

After the soil has been prepared, make a furrow or trench around the margins. This will provide an easy and effective way of sealing the gasproof cover by burying its edges in the furrow. Seal in a trench right fumigant.

Decomposed compost and manure can be treated in the same manner but such material should have a temperature above 60° F. before use and have sufficient moisture for good weed seed germination. Also, such materials should be located on wet ground or a concrete floor and covered to not more than 18 inches in depth before application. Piles two to three feet high can also be fumigated. Fumigate at 12 inch intervals. The gas should always be allowed above the pile to allow for the diffusion of the gas. These materials in bulk or in bales and piles can also be treated in a gas tight vault or drum. Conduct such fumigations in a well ventilated area or outdoors.

PLACE COVER SUPPORTS AT REGULAR INTERVALS because the gas is distributed freely under the gasproof plastic cover to give satisfactory control the cover should be supported above the material in containers. Do not allow the cover to be flat on the surface of the material to be treated during fumigation.

PLACE EVAPORATING CONTAINERS ON PREPARED BED. INSERT APPLICATOR TUBING IN CONTAINERS. Evaporating containers are essential for the volatilization and distribution of the fumigant. These may be tin pans or basins made of plastic covering. Evaporators should be placed at intervals of approximately 30 feet. NOTE: Evaporating containers are not required for strip fumigation.

Anchor one end of each length of polyethylene tubing in each evaporating container with short length of pipe, rock or other suitable weights so that the liquid is directed into the container. The other end of the polyethylene tubes should extend out from under the cover so that the applicator can readily attach them to the cylinder containing the fumigant.

PLACE GASPROOF PLASTIC COVER CAREFULLY OVER AREA TO BE TREATED. SEAL EDGES OF THE COVER WITH DIRT. After the supports and tubing are in place the gasproof cover should be laid with its edges in the furrow and sealed with earth. Enough earth should be used to cover the edges to a width of 6 to 10 inches, after which it should be tamped down firmly. Exercise care in preventing damage to cover. If it is to be placed a shallow depth on the edge of the cover every few feet as this is being added to keep the wind from blowing it. This is done and the area are then sealed tightly with earth.

APPLYING THE FUMIGANT. The fumigant may be applied as either a liquid or a gas. The gas results from heating of the fumigant using a coil of copper tubing placed in heated water. This method eliminates the need for the evaporating container. In either case the cylinder should be filled with the proper adapters which allows the gas to be dispensed beneath the tarpaulin.

REMOVE COVER AFTER RECOMMENDED EXPOSURE PERIOD, AERATE, PREPARE SEED OR PLANT BED FOR PLANTING. The minimum exposure period is 24 hours if the soil temperature is above 50° F. A 48 hour exposure period is necessary.

WHEN TO PLANT AFTER TREATMENT. The treated soil must be aerated before planting. Some seeds such as tobacco can be planted 48 hours after the removal of the cover. All other plants in general should be planted before planting certain lower seeds. Usually a period of several days is necessary before seeds of all other plants are planted in treated soil after it has been aerated for a week or ten days. It is satisfactory to water the soil after the fumigation to help aerate the soil and to regenerate the aeration of the soil.

Pest Control Disease	Type of Soil or Material	Exposure Time	Minimum Exposure Time	Aeration Time Before Planting
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Damping off and organisms such as Pythium Rhizoctonia Fusarium	Turf Recreation. Same sites as listed above Nonfood and Nonfeed Crop Areas	2.5 lbs per 1000 sq ft	24 hours	72 hours or longer
	Same plants as listed above			
	Well rotted compost and manure	1 lb per 1000 sq ft	24 hours	72 hours or longer

¹ Suggestions for establishing weed free turf. Lawn grass (seed or sprigs) may be planted following treatment with this product in order to establish a weed free lawn. Treat the soil according to the above directions. Where an old lawn is to be renovated the turf is usually worked up before fumigating. Recent experiments have shown that the undisturbed turf may be killed by fumigation and the dead sod sparged or seeded after removal of the cover. Frequent sprinkling after seeding will insure a uniform stand.

² Suggestions for fumigating rooting materials. Straw or hay should be thoroughly soaked several days prior to treatment since seeds must be moist at time of fumigation to be effective. At the time of treatment the piles are merely piled up and covered with a plastic cover with edges sealed in the same manner as described for soil.

³ Exposure and aeration time should be double that of normal soil treatments for all other uses. This product should not be used if temperatures below 50° F.

Seeds of certain species of plants such as clover and alfalfa with long germination periods and others with hard seeds may require a higher dosage and a longer exposure period than normal.

⁴ Soil in which plants are to be sown should be aerated immediately after use.

⁵ Growing difficulties may be encountered with carnations, certain species of geraniums, gladioli, roses, sava, snapdragons and certain other crops.

USE PRECAUTIONS

Every grower should use this product and all other products containing fumigants in a safe manner under his growing conditions for at least a full growing season before retransferring materials. These materials have given excellent results with a wide variety of soils and plants. However, there are some instances where early or frost-killed plants, which have occasionally been unsatisfactory following treatment. For example, some difficulty has been experienced with carnations, sava, snapdragons, carnations, multi-flora roses, holly, as well as certain other plants. The following guidelines are suggested. Satisfactory results are to be expected.

1. Fumigation with this product will destroy soilborne plant pathogens as well as facilitate or facilitate the conversion to nitrates from ammonia by bacterial action. Certain animals, such as sheep and goats, which are ruminants, may suffer growth inhibition or stand reduction when planted in fumigated soils. This may be due to the high ammonia nitrogen or to a nitrogen deficiency at least 1-2 and preferably 4-6 months after fumigation. To avoid this hazard, the rate of application should be in the form of nitrate nitrogen. This hazard may also be reduced by the application of a nitrogen fertilizer after fumigation. The nitrate form of nitrogen such as sodium nitrate or nitrate sulfur may be used at a rate of 100 lbs per acre. This should be applied sparingly. Also supply the nitrogen needed with phosphorus, potassium and other plant nutrients should be used according to soil needs.
2. Application should be made several months prior to planting of plants such as muck, compost, heavy manured soils, since they seem more likely to contain sulfur, sulfur, phosphorus, and other organisms, resulting in poor growth.
3. Do not treat areas to be used for water or irrigation.
4. Be sure head and parts are free from gas before planting seed. Working the soil after fumigation is not necessary for complete aeration.
5. Do not contaminate fumigation areas by walking on them, or by using tools, equipment, or shoes that have been in this soil. If necessary, the treated soil should be washed with water. Washing shoes and materials should be done in a trench or make a trench around the treated area for proper drainage. Wash your hands and clothing in a separate area. Satisfactory for preventing this soil treated fumigation should be disposed of in a safe manner. Wash your hands and clothing in a separate area.
6. Hay or straw treated directly or harvested from treated soils should be fed to animals.

THE HALIDE LEAK DETECTOR This detector is used to determine the presence of halide ions in a sample such as a liquid, slurry and tarps. Since this detector is not normally used for the detection of halide ions in a sample with a ppm or less, this detector should not be used for the detection of halide ions in a sample with a concentration of 100 ppm or less.

The following table is a guide to the approximate color change which will occur in the flame during use of the detector. The color change will be the same for all halide ions.

This Product Present Parts per Million	Approximate Color Change	Flame Color in Daylight
0	Colorless	Colorless
10	Light green	Light orange
20	Light green	Moderate green
30	Light green	Green
40	Light green	Strong green
50	Light green	Strong green blue tinge
60	Light green	Strong blue green
1000	Dark green	Blue

BEST AVAILABLE