PM 32 [illegible] 106-3 10/25

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS
AND DOMESTIC ANIMALS:

D A N G E R

EXTREMELY HAZARDOUS LIQUID AND VAPOR UNDER PRESSURE.
INHALATION MAY BE FATAL OR CAUSE SERIOUS ACUTE ILLNESS OR DELAYED LUNG OR NERVOUS SYSTEM INJURY.
DO NOT BREATH VAPORS.
LIQUID OR EXCESSIVE 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.

OBSERVE THE FOLLOWING PRECAUTIONS:

GENERAL PRECAUTIONS

1. Do not get in eyes, on skin, or on clothing.
2. Do not spill or discharge contents outside of areas confined for treatment.
   Comply with all local regulations and ordinances.
   It is advisable to supply your physician with information on Methyl Bromide. Literature is available from your dealer or distributor.
3. Obtain medical assistance at once in case of illness after exposure, and do not allow conditions which could accidentally cause further exposure until recovery is complete. (See Note to Physician.)

RESPIRATORY PROTECTION:

If the concentration of methyl bromide in the working area, as measured by a direct-reading detector device (such as a Dranger gas detector) does not exceed 5 ppm (20 mg/cu.m), no respiratory protection is required. If this concentration is exceeded at any time, all persons in the fumigation area must wear protective clothing and a NIOSH/MSHA approved self-contained breathing apparatus, (SCBA) or combination air-supplied/SCBA respirator (such as a U.S. Divers' Survivair or comparable device).

Under normal soil fumigation conditions, the concentration of methyl bromide in the working area will not generally exceed 5 ppm as a time-weighted average and no respiratory protection is required. However, there is the possibility of a spill or leak during soil fumigation. Therefore, a SCBA or combination air-supplied/SCBA respirator must be available and will be required for entry into an affected area in the event of a leak or spill.

CLOTHING PRECAUTIONS:

1. Wear loose clothing and woven that are cleaned after each wearing. Do not wear jewelry, gloves, or tight clothing when handling. Methyl bromide is heavier than air and may be trapped inside clothing and cause skin injury. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid.
2. Following exposure, immediately remove clothing, shoes, and socks. Do not reuse contaminated clothing or shoes until thoroughly cleaned and aerated. Grossly contaminated clothing cannot be adequately decontaminated.
3. Do not wear gloves of any type, or rubber protective clothing, or rubber boots.
4. If liquid fumigant splashes or spills on clothing, remove them at once, as fumes will be an intolerable source of irritation.

WARNING SIGNS: Structural. Transportation. Space Fumigation

1. The applicator must placard or post all entrances to the fumigated area with signs bearing in English and Spanish:
   (1) The signal word DANGER/PELIGRO and the skull and crossbones symbol.
   (2) The statement, "Area under fumigation. DO NOT ENTER/No ENTRE".
   (3) The date of fumigation.
   (4) Name of fumigant used.
   (5) Name, address, and telephone number of the applicator.
2. Do not remove a placard until the treated space is completely aerated. To determine whether aeration is complete, each fumigated site must be monitored and shown to contain less than 5 ppm methyl bromide. If less than 5 ppm methyl bromide is detected, the placard may be removed.
3. Enclosure must be placarded with D.O.T. specified warning signs. Warning signs are available from your dealer or distributor.

SPILL OR LEAK PROCEDURE:

1. Evacuate the immediate area of the spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into the affected area to correct problem. Have leaking or damaged cylinders or containers outdoors or in an isolated location, observing safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until the concentration of methyl bromide is determined to be less than 5 ppm (20 mg/cu.m).
2. Contaminated soil, water, and other cleanup debris is a toxic hazardous waste. Report spill to the National Response Center (800-424-8802) if reportable quantity of 1000 lbs. is exceeded.

ACCEPTED
AUG 1989

SPECIMEN

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY

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.

TRICAL
METHYL BROMIDE 99.5%
FOR USE ONLY BY PROFESSIONAL FUMIGATORS

ACTIVE INGREDIENTS:	
METHYL BROMIDE	99.5%
INERT INGREDIENTS:	
CHLOROPICRIN, ODORIZING AGENT	0.5%
TOTAL	100.00%

SHADOW MOUNTAIN PRODUCT: CORPORATION

P. O. BOX 1327 · HOLLISTER, CA 95024

E.P.A. EST. 11220-CA-1,2,3,4;FL-1

E.P.A. REG. NO. 58266-03

NET CONTENTS . . . . . LBS.

KEEP OUT OF REACH OF CHILDREN

DANGER  **PELIGRO**

POISON

PRECAUCION AL USARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada cuidadosamente.

IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY TAKE PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY

STATEMENT OF PRACTICAL TREATMENT

IF INHALED: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration. Give oxygen if needed. Do not give anything by mouth to any unconscious person. Seek medical attention.

IF ON SKIN: Immediately remove contaminated clothing, shoes, and other items covering the skin. Wash contaminated skin area thoroughly with soap and water.

IF 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 overexposure can result in blurred vision, staggering gait, and mental imbalance, with probable recovery after a period of no exposure. Blood bromide levels suggest the occurrence, but not the degree, of exposure. Treatment is symptomatic.

See Side Panel for Additional Precautionary Statements.

PRECAUTIONS
STRUCTURAL, TRANSPORTATION, OR SPACE FUMIGATION USE

GENERAL PRECAUTIONS:

1. Keep animals, children, and unauthorized people away from area under treatment until area is certified free of methyl bromide (See Aeration Statement).
2. When used for fumigation of enclosed spaces (houses and other structures, warehouses, vaults, chambers, greenhouses, trucks, vans, barges, ships, and other transport vehicles, and tarpaulin-covered areas), two persons trained in the use of this product must be present during introduction of the fumigant, initiation of aeration, and after aeration when testing for reentry. Two persons do not need to be present if monitoring is conducted remotely (outside the area being fumigated).
3. Do not fumigate with this product when the temperature is below 40 degrees F.
4. Whenever possible, apply methyl bromide from outside of structure or for being fumigated. Make sure the fumigated area is properly sealed and posted. Do not move trucks, trailers, or vans during fumigation. They must be completely aerated before movement is allowed.

AERATION AND REENTRY:

1. After fumigation, treated areas must be aerated until the level of methyl bromide is below 5 ppm (20 mg/cu.m) and below 3 ppm (12 mg/cu.m) for residential and commercial structures.
2. Do not allow entry into the treated area by any person before this time unless loose clothing and a respiratory protection device (SCBA or combination air-supplied/SCBA) is worn.
3. For residential and commercial structural fumigations, specific USEPA instructions as detailed elsewhere in this product label and supplemental manual must be strictly followed.

PRECAUTIONS
SOIL FUMIGATION USE

PRIOR TO FUMIGATION:

1. Comply with all local regulations and ordinances. Obtain an application permit from Agricultural Regulatory Agencies as required.
2. Never fumigate alone. It is imperative always to have an assistant and proper protective equipment in case of accidents.
3. Drivers of application equipment must advise other workers of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the tractor and how to safely work with the tractor and driver while fumigating.
4. Handle this fumigant in the open, with the operator "up wind" from the container where there is good ventilation.
5. Check fumigant pressure system for leaks before beginning operation.
6. Two trained persons must be present during introduction of the fumigant.
7. When fumigating soil from a tractor, 5 gallons of water must be carried on the tractor and placed where it is readily accessible. In addition to water available on the tractor, at least 5 gallons of additional water must be available from the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
8. Field should be reasonably free of trash before starting the fumigation.

DURING FUMIGATION:

1. This fumigant should not be applied when there is an atmospheric inversion. Since unacceptable concentrations of chloropicrin may drift to nearby areas, immediately cover treated area with plastic tarpaulin for a minimum of 48 hours when the injection depth is less than 10".
2. Do not lift injection shanks to turn at the end of a pass until fumigant has drained from system following closure of shutoff valve.
3. If trash is inadvertently pulled by the shanks to the ends of the field when fumigating, it must be covered by lifting the shanks, then covering the trash with polyethylene film before making the turn for the next pass.
4. When changing the cylinders, be certain they are turned off and fumigant system is not under pressure. Do not open the system when there are people or structures downwind where exposures above the permissable exposure levels could occur.

FOLLOWING FUMIGATION:

1. Post all treated areas with warning signs, available from your dealer or representative.
2. No children, unauthorized people, or animals should be in the fumigation area for 48 hours.
3. When tarpaulin is used, two trained persons must be present during removal of the tarpaulin.

SPILL AND LEAK PROCEDURE:

1. In case of a rupture of hose or fitting while applying fumigant, immediately stop tractor and motor. Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/-SCBA respirator for entry into affected area to correct the problem. Approach from upwind to make necessary repairs.
2. Do not reenter area without respiratory protection until spill has evaporated or leak has been fixed.

NOTE CAREFULLY

Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when heavy rates of fertilizer and fumigant are applied to soils that are either cold, wet, acid, or high in organic matter. To avoid injury to plant roots, fertilize as indicated by soil tests made after fumigation. To avoid ammonia injury and/or nitrate starvation to crops, avoid using fertilizers containing ammonium salts and use only fertilizers containing nitrates until after the crop is well established and the soil temperature is above 65 degrees F. Liming highly acid soils before fumigation stimulates nitrification and reduces the possibility of ammonia toxicity.

DIRECTIONS FOR USE

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

STORAGE AND DISPOSAL

STORAGE AND HANDLING:

Store in dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage. Persons moving or handling containers should wear protective clothing. Open container only in a well-ventilated area wearing protective clothing, and respiratory protection if necessary. 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 cylinder.

RETURN OF CYLINDERS:

Cylinders are the property of:

Shadow Mountain Products
8770 Highway 25
Hollister, CA 95023

Shadow Mountain Products
1029 Railroad Street
Corona, CA 91720

and should be returned promptly by collect auto freight. Do not ship cylinders without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact SCC for return instructions.

SHIPPING

This fumigant is classified in the U.S. Department of Transportation Hazardous Materials Regulations as Methyl Bromide, 2.3, UN 1062, Poison-Inhalation Hazard, Hazard Zone C and no exemptions from specifications, packaging, marking, or labeling are allowed. Describe empty cylinders as having last contained Methyl Bromide (Inhalation hazard). Do not ship with foods, feeds, or clothing.

DISPOSAL

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

ENVIRONMENTAL HAZARD

This pesticide is toxic to wildlife. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

For space fumigation use, monitor area immediately surrounding the fumigation site with a Halide Detector during exposure and aeration periods to establish that dangerous levels of the fumigant are not present (see Aeration Statement for Halide Detector use).

The high volatility of the fumigant permits it to be vented from space being fumigated and to dissipate rapidly with no hazard to surrounding areas with correct monitoring.

CHEMICAL HAZARD

Methyl bromide is practically nonflammable. There is no danger from fire or explosion in use concentrations. However, flame can change the chemical to produce some corrosive damage to items in the space being fumigated. Pilot lights and glowing wire heaters should be turned off.

Do not apply gas directly to metal surfaces because of possible corrosive effect on certain metals. Do not use containers or application equipment made of magnesium, aluminum, or their alloys.

The following materials can develop an undesirable odor when encountered in structural fumigation and should be removed from the space being fumigated:

1. Foodstuffs: (a) Iodized salt; (b) Full-fat soya flour; (c) Any kinds of materials that contain reactive sulfur compounds, such as some soap powders, some baking sodas, and some salt blocks used for cattle licks.
2. Certain rubber goods: (a) Sponge rubber; (b) Foam rubber, as in rug padding, pillows, cushions, and mattresses; (c) Rubber stamps and other similar forms of vulcanized rubber.
3. Furs, horsehair, and pillows (especially feather pillows).
4. Leather goods (particularly white kid or any other leather goods tanned with sulfur processes).
5. Woolens (extreme caution should be used in the fumigation of any carpet woolens, and some adverse effect has been noted on the fumigation of woolen suits, coats, blankets, hand-knit woolen socks, sweaters, shawls, and woolen yarns).
6. Viscose rayons (those rayons processed or manufactured by a process in which carbon bisulfide is used).
7. Paper: (a) Alley-polishing papers; (b) Certain writing papers cured by sulphide processes; (c) Carbonless paper or Blueprints.
8. Photographic chemicals as used in photo processing darkroom (does not include camera film).
9. Cinder blocks, or mixed concrete which occasionally gives up odors.
10. Any materials that may contain reactive sulfur compounds. THESE PRODUCTS MAY HINDER EFFECTIVENESS OF THE FUMIGANT: Charcoal materials (charcoal absorbs the methyl bromide, reducing the effective concentration and contaminating the charcoal).
11. If there is a question whether a material may develop an odor, a test fumigation may be run with a small quantity of the material.

GENERAL INSTRUCTIONS

THIS FUMIGANT IS A HIGHLY HAZARDOUS MATERIAL AND SHOULD BE USED ONLY BY INDIVIDUALS TRAINED IN ITS PROPER USE. BEFORE USING, READ AND FOLLOW ALL LABEL PRECAUTIONS AND DIRECTIONS, INCLUDING THE ATTACHED SUPPLEMENT. 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.

SPACE AND STRUCTURAL FUMIGATION

DIRECTIONS FOR USE:

METHYL BROMIDE 99.5% is intended for professional use in empty mills, warehouses, boxcars, fumigation vaults, under sealed tarpaulins, flat or upright bulk grain storages for the control of all stored product insects including grain beetles, granary weevil, rice weevil, cadelles, mites, and meal worms.

METHYL BROMIDE 99.5% may also be used for the control of structural insect pests such as dry wood termites, lyctus or powder post beetle, old house borer, death watch beetle, and such household pests as roaches, bedbugs, spiders, ants, millipedes, carpet beetles, clothes moths, mice and rats, in dwellings, garages, barns, storage buildings, and other structures infested with these pests.

RATES OF APPLICATION:

For general fumigation at temperatures above 70°F, use 1-3 pounds Methyl Bromide 99.5% per 1,000 cu.ft. for 18-24 hours exposure time. Under adverse conditions, increase the dosage from 3 1/2 to 3 3/4 pounds per 1,000 cu.ft. fumigation rate.

DANGER:

Thoroughly aerate building after application. Do not fumigate food products other than those specified in directions and do not use dosages higher than recommended as this can, in some cases, result in residues in excess of those permitted. Do not use Methyl Bromide 99.5% in [illegible]ry, therm, or meat plants, or on fresh fruits or vegetables. Do not fumigate if (1) grain moisture is high; (2) grain temperature is low (below 60°F); or (3), there is excessive dockage.

PREPARATION FOR FUMIGATION:

Remove from the structure to be fumigated all persons, domestic animals, pets, fish, and growing plants. Remove from the premises or place in polyethylene bags (thickness not less than 4 mils.), all foods and medicants. Polyethylene bags must be sealed with sealing tape or clamps. Extinguish all flames including pilot lights. Open all doors and accesses to crawl spaces, attics, and sub-floors. For fabric pest control, open storage chests, drawers, and closets. Provide for forced air circulation of fumigant during the gassing period. For masonry or metal structures, caulk or tape all cracks and other air leaks around doors, windows, vents. Wood structures and others that cannot be sealed effectively may be enveloped in a gas cover tarpaulin or polyethylene plastic sheet at least 4 mils. thick. Seal all edges of the envelope with moist soil or sand snakes. Soak soil with water 1 foot from the edge of the envelope as necessary to protect nearby plants.

FUMIGATION:

Release Methyl Bromide from outside of structure through a heat exchanger or suitable leak proof tube (such as polyethylene) attached to an evaporating pan to prevent splashing onto interior. If it is necessary to release fumigant from inside of structure, a S.C.B.A. must be worn as described in Precautionary Statements. Operate electric fan(s) for a minimum of 30 minutes after release to accelerate distribution of gas. Relative to the complexity of the structure to be fumigated, more than one release location may have to be set up.

FUMIGATION FOR RESIDENTAL AND COMMERCIAL STRUCTURES: AERATION AND REENTRY

Aeration and Reentry: At the end of the exposure period, after all tarpaulins or seals are removed from the structure, open all interior and exterior doors, windows, and vents that are operational. No person shall be allowed to reenter the structure unless wearing protective clothing and a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator until the following criteria are met:

1 (A). If non-mechanical or natural ventilation is used, the structure must be aerated for a minimum of seven days from the time the tarpaulins are removed. (B). After aeration is completed, the level of methyl bromide in the structure must be measured using a gas detector device with a minimum detection limit of 3 ppm for methyl bromide. Measurements must be taken from an interior electrical outlet by inserting the detection device in the ground receptacle, or from other enclosed space within the wall or an interior and a perimeter wall: and (C)(i). The level of methyl bromide is less than 3 ppm from each area measured; or (ii). If the level of methyl bromide is 3 ppm or greater, the structure shall be aerated for an additional 24 hours. At the end of the 24 hour period, the level of methyl bromide must be measured from the areas previously sampled. These procedures must be repeated until the level of methyl bromide is below 3 ppm.

2. If mechanical aeration is used: (A). For structures without attics, an aeration fan(s) must be inserted in a window or other exterior opening and sealed so that the air inside the structure is exhausted out of the structure. The aeration fan(s) must be capable of displacing 5,000 cubic feet of air per minute. To facilitate aeration, exterior openings, such as windows, vents, or an access door to the subarea, should be utilized. The structure must be aerated with the fan(s) operating for a minimum of 72 hours; (B). After aeration is completed, the level of methyl bromide in the structure must be measured using a gas detector with a minimum detection limit of 3 ppm for methyl bromide. Measurements must be taken from an interior electrical outlet by inserting the detection device in the ground receptacle, or from other enclosed space within the wall or an interior and a perimeter wall; and, (C) (i). The level of methyl bromide is less than 3 ppm from each area measured; or (ii) If the level of methyl bromide is 3 ppm or greater, the structure must be aerated for an additional 12 hours. At the end of the 12 hour period, the level of methyl bromide must be measured from the areas previously sampled. These procedures must be repeated until the level of methyl bromide is below 3 ppm.

AERATION AND REENTRY (Continued):

3 :(A). For structures with attics, an aeration fan must be inserted in the attic access door and a window or other exterior opening, and both sealed so that air inside the structure is exhausted outside the structure. The aeration fans must be capable of displacing a minimum of 5,000 cubic feet of air per minute. To facilitate aeration, exterior openings, such as windows, vents, or an access door to the subarea should be utilized. The structure must be aerated with the fans operating for a minimum of 72 hours: (B). After aeration is completed, the level of methyl bromide in the structure must be measured using a gas detector device with a minimum detection limit of 3 ppm for methyl bromide residues. Measurements must be taken from within an interior electrical outlet by inserting the detection device in the ground receptacle, or other enclosed space within an interior and a perimeter wall: and (C) (I). The level of methyl bromide is less than 3 ppm from each area measured: or (ii) If the level of methyl bromide is 3 ppm or greater, aeration must continue for an additional 12 hours. At the end of the 12 hour period, the level of methyl bromide must be measured from the areas previously sampled. These procedures must be repeated until the level of methyl bromide is below 3 ppm.

4. For structures with basements, in addition to the requirements of paragraphs 1, 2, and 3 above, the windows, vents, and interior doors of the basement must be open, and (A). After aeration is completed, the level of methyl bromide in the basement must be measured using a gas detector device with a minimum detection limit of 3 ppm for methyl bromide residues. A measurement must be taken from an interior electrical outlet by inserting the detection device in the ground receptacle, or from other enclosed space within the wall on an interior wall. In the absence of an interior wall, a measurement must be taken of the ambient air in the basement; and (B) (i). The level of methyl bromide is less than 3 ppm; or (ii)If the level of methyl bromide is 3 ppm or greater, the structure must be aerated for an additional 24 for natural ventilation or an additional 12 hours for mechanical aeration. At the end of the additional ventilation period, the level of methyl bromide must be measured from the area in the basement previously sampled. These procedures must be repeated until the level of methyl bromide is below 3 ppm.

STRUCTURAL FUMIGATION FACT SHEET
(See Supplemental Manual SOP-1 For Example of Fact Sheet)

A. The applicator must obtain a structural fumigation fact sheet which has been signed by, and provided to, the following persons: (1) an adult occupant of a single family dwelling prior to the parties entering into a fumigation agreement, (2) (a) The owner, manager, or designated agent of the building for multiple-family dwellings, provided he or she acknowledges in writing to the applicator that a copy of the Structural Fumigant Fact Sheet has been provided to an adult occupant of each unit prior to the parties entering into a fumigation agreement: or (b) An adult occupant of each unit in a multiple family dwelling prior to the parties entering into a fumigation agreement, or (3) the owner, manager, or designated agent for all structures or businesses other than family dwellings.

B. The Structural Fumigation Fact Sheet shall state: The purpose of this handout is to inform the consumer of possible health hazards associated with the use of the structural fumigant, methyl bromide. To make sure you have been given an opportunity to read this, applicators are required to obtain the signature of the owners and occupants of property to be fumigated with methyl bromide. You will also be given a copy of this fact sheet to keep.

DRAEGER GAS DETECTOR, DRYOUT GASTECH DETECTOR: (Hand Pump and Detector Tube) Methyl bromide may be detected at the Threshold Limit Value (T.L.V.) of 5 ppm. Detectors are available from your dealer or distributor.

PREPLANT SOIL FUMIGATION

METHYL BROMIDE 99.5% may be used as a preplant soil fumigant for land in which plants may be grown for nonfood crop uses. These uses are for seed and plant beds, nurseries and permanent planting sites for tubers, lawns, and other ornamental and recreational turf areas, forest and shade trees, ornamental flowers, vines and shrubs and other similar plants. Methyl Bromide 99.5% may be used in vegetable seed beds for production of plants that are later transplanted in untreated soil or soil treated to label directions for registered products, and in orchard and vineyard planting sites and soils where tomatoes, strawberries, pineapple, peppers, muskmelons, cauliflower, broccoli, lettuce, onions, asparagus, and eggplants are to be grown for food.

APPLICATION

SEED AND PLANT BEDS: (Plants Grown For Transplanting)
Prior to planting, apply Methyl Bromide at the rate that appears in the dosage table by means of tractor mounted chisels spaced 12 inches apart and at a depth of 5 - 8 inches below the soil surface. To seal fumigant after application, cover immediately with a gas-tight tarpaulin by means of a mechanical tarp layer. Do not remove tarpaulin until after the proper exposure period indicated in the dosage table has passed. Prior to fumigation, the soil should be in seed bed condition with adequate moisture to support seed germination. The soil should be worked to the depth it is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and time allowed for refuse to decompose before treatment.

TURF, NURSERIES, AND FLORAL CROPS:
Follow directions for seed and plant beds. If fumigating old turf, the soil should be worked up before fumigating. It is desirable that the old turf be incorporated into the soil by rototilling, discing, or plowing. Rate and exposure time is indicated in the dosage table.

TOMATOES, STRAWBERRIES, BROCCOLI, LETTUCE, MUSKMELONS, EGGPLANTS, ASPARAGUS, PEPPERS, ONIONS, CAULIFLOWER:
Follow directions for seed and plant beds. Rate and exposure time is indicated in the dosage table. Row or bed applications may be made at the broadcast rates but the amount used will be proportionately less per acre depending on the row spacing and width of treatment in the row or bed.

PINEAPPLE:
Prior to planting pineapple, apply methyl bromide at a rate specified in the dosage table by means of tractor mounted chisels set not more than 5 1/2 feet apart and at a depth of 12-18 inches. To seal fumigant, cover immediately with pineapple bed mulch film dispensed by a sled mounted on the same tractor. Pineapple propagules may be planted through the bed mulch film 7 or 10 days after fumigation.

GRAPES:
Prior to planting, apply methyl Bromide at the rate that appears in the dosage table by means of tractor mounted chisels spaced not more than 5 1/2 feet apart. Inject the Methyl Bromide at a depth of not less than 12 inches. To seal fumigant after application for disease control, cover immediately with a gas-tight tarpaulin by means of a mechanical tarp layer. Do not remove tarpaulin until after the proper exposure period indicated in the dosage table has passed. For nematode control, seal soil immediately after application of the fumigant by discing or similar operation. Prior to application, the soil should be ripped to not less than 30 inches and the subsurface should be as dry as possible. Excess moisture will block deep penetration of the Methyl Bromide. Peat soils and soils very high in organic content should not be fumigated to control Armillaria mellea with Methyl Bromide. Clay soils and soils that drain poorly may be dried out by planting sudan grass and withholding water from it during the summer. This will increase penetration of Methyl Bromide. Back hoeing and augering are alternative methods of applying Methyl Bromide to the tree site. Attach a Methyl Bromide dispenser to the cylinder of Methyl Bromide and to it attach a polyethylene applicator tube. The correct dosage can be measure with the dispenser and then applied through the tube.
BACK HOEING: Field tests have demonstrated that this is an effective method for preparing the replant site for fumigation, especially in areas where a hardpan has developed through compaction of the soil. The size of the prepared site is dependent upon the degree of soil compaction. Deeply compacted soil requires preparation of a site the size of the "planter box" in which the tree is to be grown. For stratified soils, a single cut the width of the back hoe, 6 feet deep and 6 feet long is satisfactory. Back fill site with 3 feet of soil, place applicator tube at this level, complete back fill, and release entire dose of fumigant for 100 square foot tree site. When fumigant has been released, remove tube and tamp soil lightly over opening to seal fumigant in the site.
AUGERING: This method is suitable in noncompacted soils or soils that are lightly stratified. Dig hole 5 feet deep with auger, back fill hole two feet, insert applicator tube, fill hole, and release entire dose of fumigant for 100 square foot tree site. When fumigant has been released, remove applicator and tamp or recover hole with soil to prevent too rapid escape of fumigant.

DOSAGE AND EXPOSURE TABLE
FOR SOIL FUMIGATION WITH METHYL BROMIDE

PEST CONTROL DESIRED	TYPE OF SOIL AND/OR CROP	DOSAGE*	MIN. EXP.	AERATION TIME BEFORE PLANTING
Nematodes, Weed Seeds, Insects	TURF RENOVATION, Lawns and Other Recreational Turf Areas	[illegible] lb/A	48 hrs	3 days
	[illegible] AND [illegible] CROP AREAS: Seed or Plant beds for Tobacco, Flowers, Shade and Forest Trees, Ornamental Shrubs and Vines, Vegetables for production of transplants only, Floral and Nursery Crops	[illegible] lb/A	48 hrs	3 days
Damping off diseases such as Pythium, Rhizoctonia, Fusarium	TURF RENOVATION: Same sites as listed above	[illegible] lb/A	48 hrs	14 days if planted to transplants 3 days if seeded
	[illegible] AND [illegible] CROP AREAS: Same plants as listed above. Vegetables for production of transplants only. Floral, Nursery [illegible], and Cover Crops.**	[illegible] lb/A	48 hrs	14 days if planted to transplants 3 days if seeded
Nematodes, Weed Seeds, Insects	[illegible] Planting for Tomatoes, Strawberries, Pineapples, Cantaloupes, Eggplants, Peppers, Broccoli, Cauliflower	[illegible] lb/A	48 hrs	3 days if seeded 7-14 days if vegetable growth set in treated soil
Crown rot fungus, Armillaria root rot, Phytophthora root rot, Nematodes (root knot, citrus, lesion, pin, ring and dagger)	GRAPES: For control of Nematodes in light sandy soils and fine textured clay soils:	[illegible] lb/A	5-7 days	14 days
	Control of Phytophthora in light sandy soil and fine textured clay soils:	[illegible] lb/A	5-7 days	14 days
	Control of Armillaria in light sandy soils:	[illegible] lb/A	5-7 days	14 days
	Control of Armillaria in fine textured clay soils:	[illegible] lb/A	5-7 days	14 days
Armillaria root rot, Phytophthora root rot, Crown rot fungus, Citrus Nematodes, Burrowing Nematodes	DECIDUOUS FRUITS, NUTS, CITRUS AND OTHER PERENNIAL WOODY PLANTS: Control of Phytophthora root rot:	[illegible] lb/A	5-7 days	14 days
	Control of Armillaria root rot in sandy light soil and fine textured clay soil:	[illegible] lb/A	5-7 days	14 days
[illegible] Nematodes	CITRUS: For control of burrowing and root knot nematodes:	[illegible] lb/A	5-7 days	In colder climates treat in fall and plant following spring
	TREE SITES: For control of Phytophthora root rot:	1-1½ lb/ 100 sq.ft.	5-7 days	In warmer climates do not plant until 30 days after application
	Control of Armillaria root rot in light sandy soils:	1-1½ lb/ 100 sq.ft.	5-7 days	
	Control of Armillaria in fine textured clay soils:	1-1½ lb/ 100 sq.ft.	5-7 days	

* Do not treat when temperature is below 50° F

** [illegible]

FOR USE WEST OF ROCKY MOUNTAINS
ONIONS, DIRECT SEEDED

APPLICATION: Treatment can be made whenever soil conditions are suitable. In northern states, late summer or early fall treatments are best for land to be planted to early spring crops. Follow application directions as described for SEED AND PLANT BEDS.

USE: For control of White Rot, weeds (grasses) and Nematodes.

DOSAGE: 300 Lbs/Acre

EXPOSURE: Remove tarpaulin after 48 hours.

AERATION: Aerate 7-14 days before planting.

LIMITATION: Use restricted to west of the Rocky Mountains. Do not treat any field more than once every twelve months.

FOR USE IN CALIFORNIA ONLY
ASPARAGUS AND LETTUCE

APPLICATION: Follow application directions as described for SEED AND PLANT BEDS

DOSAGE AND USE TABLE

CROP	USE	RATE	AERATION*
Asparagus	Fungus diseases (damping off, Phythium spp) Weeds (grasses), Nematodes	300-400 lbs/A	Remove tarpaulin after 48 hrs.
Lettuce	Weeds (including oxalis) Nematodes	300-400 lbs/A	Remove tarpaulin after 48 hrs.
	Big Vein	200-300 lbs/A	Remove tarpaulin after 48 hrs.

* Aerate 14 days before planting.

LIMITATIONS: For use in California only. Do not harvest asparagus during year of treatment. Use on lettuce fields only once in 2 to 3 years

FOR USE IN FLORIDA
CITRUS CONTROL OF PHYTOPHTHORA IN SANDY SOILS

This is preplant or replant treatment. Trees which are planted in this treated soil will not bear harvestable fruit for a period of at least 24 months. Use a minimum of 1 to 1 1/4 pounds per 100 square feet dosage to fumigation for 48 hours, covering treated area with a 4 mil tarpaulin. Will control disease to a depth of 4 feet. Aerate 2 weeks before setting transplants in treated area.

GREENHOUSE FUMIGATION

This fumigant may be used in field or in greenhouse. When used in greenhouse, the following safety precautions must be strictly observed

PRIOR TO FUMIGATION: The use of methyl bromide in confined spaces presents a potential hazard to humans and plant life. Special precautions must be made in order that these potential hazards be minimized. It is the responsibility of the individual supervising the fumigation operation to see that all safety precautions are strictly observed. Before the fumigation operation commences, the supervisor of the fumigation job shall have conducted proper training of all personnel involved in the fumigation (including use of safety equipment); removed all persons from the area not directly involved in the fumigation, and inspected the equipment to insure a proper aeration.

DURING FUMIGATION: If a wind is blowing, all injections should be made upwind from a previous injection site. Immediately after injection of the fumigant and tarping, a qualified person wearing protective equipment should monitor the area with a halide leak detector. If excessive leaks are found, the source of the leak should be revealed immediately. During this operation, all windows and doors should be open and fans operating to maximize ventilation.

PLACARDING OF AREA: The fumigated area must be placarded on all entrances with signs containing at least the signal word DANGER and the "Skull and Crossbones" and the words, "Area under fumigation, do not enter until completely aerated."; the date of fumigation; name of the fumigant used; emergency telephone number for contact; and the name and address of the fumigator. Do not remove warning signs until the fumigated area is completely aerated and safe for entry, as indicated by a suitable detector. Exposure time should be 24 - 48 hours.

PROTECTIVE EQUIPMENT: Although fumigant contains chloropicrin, the absence of chloropicrin does not always indicate the absence of methyl bromide. Under no circumstances shall any person be allowed to enter the fumigated structure without the appropriate protective equipment from the time of injection of the fumigant until acceptable readings are obtained using an approved detector. To maintain adequate safety standards, the following equipment must be present on the site during the entire fumigation operation: (1) One or more self-contained breathing apparatus; (2) One or more replacement air bottles per breathing apparatus; (3) One or more halide leak detectors.

A 5 ppm maximum exposure level for Methyl Bromide has been established. This level has been defined as the concentration below which persons, protective devices are not required. Persons not wearing protective equipment should not enter the fumigated area until monitoring devices show Methyl Bromide concentrations of 5 ppm or less.

WARRANTY

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

ACCEPTED
17 AUG 1993