

8622-39

9/22/2003

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

SEP 22 2003

James P. McBriarty
Director of Regulatory Affairs
DSBG AmeriBrom, Inc.
215 Linwood Avenue
Fort Lee, NJ 07024-5004

Subject: 50-50 Preplant Soil Fumigant
EPA Reg. No. 8622-39
Amendment dated June 12, 2003 and resubmission dated September 19, 2003

Dear Mr. McBriarty:

The amended label referred to above, resubmitted on September 19, 2003 in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

- Move the following sections to below the "User Safety Recommendations" box:
Environmental Hazards
Physical Hazards
Chemical Hazards
- In the section "NOTICE" (page 15), revise the last sentence to read "However, Ameribrom assumes no responsibility for any loss due to excessive residues." Ameribrom cannot claim that they are not responsible for the accuracy of their "Directions for Use".

One copy of the label stamped "Accepted with comments" is enclosed for your records. This label supercedes all labels previously accepted for this product. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at westin.robert@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Mary J. Waller".

Mary Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505C)

Enclosure

**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.

**50-50
PREPLANT
SOIL FUMIGANT**

FOR CONTROL OF NEMATODES, WIREWORMS, WEED SEEDS, FUNGUS
DISEASES, GRUBS, AND SOIL-BORNE INSECTS.

ACTIVE INGREDIENTS:**By Wt.**

METHYL BROMIDE	50%
CHLOROPICRIN.....	50%
TOTAL.....	100%

ACUTELY TOXIC CHEMICAL

14.0 LBS. Active Ingredient per gal. (LIQUID IN CYLINDER)

KEEP OUT OF REACH OF CHILDREN**DANGER****PELIGRO****POISON**

Si Usted no entiende la etiqueta, busque a alguien para que se la explique
a Usted en detalle.

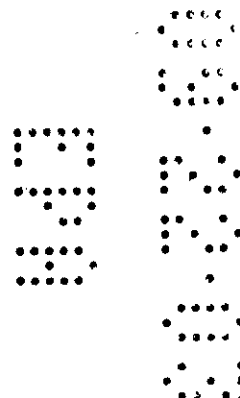
(If you do not understand the label, find someone to explain it to you in detail.)

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

SEP 22 2003

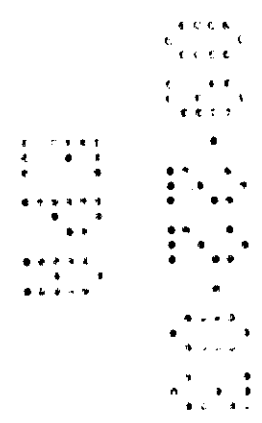
**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

8622-39



FIRST AID	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-420-9236 for emergency medical treatment information.	
NOTE TO PHYSICIAN Early symptoms of overexposure are intense lachrimation and irritation of mucous membranes, 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 panels for additional precautionary statements.



Manufactured by:

AmeriBrom, Inc.
2115 Linwood Ave., Suite 200
Fort Lee, NJ 07024
Telephone: (201) 242-6560
Fax : (201) 242-6561

EPA REG. NO. 8622-39

- ☐ EPA EST. NO. 15298-IS-01
- ☐ EPA EST. NO. 29516-FL-04
- ☐ EPA EST. NO. 29516-NC-01
- ☐ EPA EST. NO. 7747-CA-01

IN CASE OF EMERGENCY CONTACT:

CHEMTREC - (800) 424-9300 or (703) 527-3887 (Collect calls accepted) [24 Hr. Number]

or

AmeriBrom / Clearon Emergency Response Number - (304) 746-3000 [24 Hr. Number]

or

AmeriBrom West - (805) 988-9719 [Business Hours ONLY]
5419 Santa Clara Ave.
Camarillo, CA 93010

Net contents: _____ LBS./ _____ KGS.

AB27-Rev.6r4

9-19-2003

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**DANGER
HIGH ACUTE TOXICITY**

Extremely hazardous liquid and vapor under pressure. Do not breathe vapor. Inhalation or ingestion may be fatal or cause serious acute illness or delayed lung or nervous system injury. 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, a volatile-liquid tear gas. Chloropicrin vapor is very irritating to the upper respiratory tract, and even at low levels can cause painful irritation to the nose and throat, and to the eyes, producing tearing. If these symptoms occur, leave the fumigation area immediately. Continued exposure after irritation is evident, or higher concentrations, may cause painful irritation to the eyes or temporary blindness, which may cause panic that may in turn lead to further accidents.

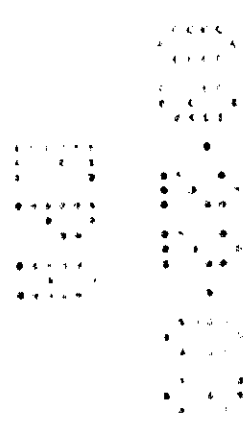
ENVIRONMENTAL HAZARDS: This pesticide is toxic to wildlife. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL HAZARDS: Do not use or store near heat, open flames, or sparking electrical equipment.

CHEMICAL HAZARDS: Do not use application devices incorporating natural rubber or aluminum or magnesium or their alloys; do not use water to clean them (Diesel oil is satisfactory).

AIR CONCENTRATION LEVEL

The acceptable air concentration level for persons exposed to chloropicrin is **0.1 ppm** (0.7 mg/m³). The acceptable air concentration level for persons exposed to methyl bromide is **5 ppm** (20 mg/m³). The air concentration level is measured by a direct reading detection device, such as a Matheson-Kitagawa.



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PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Loose fitting or well ventilated long-sleeved shirt and long pants.

Shoes and socks.

Full-face shield or safety glasses with brow and temple shields (Do NOT wear goggles). When the air concentration level is above 5 ppm and a respirator is required, protect the eyes by wearing a full-face respirator.

No respirator is required if the air concentration level of chloropicrin in the working area is measured to be less than 0.1 ppm AND the air concentration level of methyl bromide in the working area is measured to be less than 5 ppm.

A respirator is required if the acceptable air concentration level of 0.1 ppm for chloropicrin OR 5 ppm for methyl bromide is exceeded at any time. The respirator must be one of the following types: (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TC-19C) OR (b) a self-contained breathing apparatus (SCBA) (MSHA/NIOSH approval number prefix TC-13F).

Under normal soil fumigation conditions, the air concentration level of chloropicrin in the working area will not generally exceed 0.1 ppm AND the air concentration level of methyl bromide in the working area will not generally exceed 5 ppm. Therefore, no respiratory protection is required. However, there is the possibility of a spill or leak during soil fumigation. Therefore, a respirator of a type specified above must be available and will be required for entry into an affected area in the event of a leak or spill.

WORK SAFETY REQUIREMENTS

1. Do not wear jewelry, gloves, goggles, tight clothing, rubber protective clothing, or rubber boots when handling. Methyl bromide and chloropicrin are heavier than air and can be trapped inside clothing and cause skin injury.
2. Immediately after contamination remove outer clothing, shoes, and socks and do not reuse until thoroughly aerated or ventilated. Keep such clothing and shoes outdoors until thoroughly aerated. Then follow the PPE manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE and work clothing separately from other laundry.
3. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.
4. Follow PPE manufacturer's instructions for cleaning /maintaining protective eyewear and respirators.

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USER SAFETY RECOMMENDATIONS**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

PLACARDING OF FUMIGATED AREAS

The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing:

- skull and crossbones symbol
- "DANGER/PELIGRO,"
- "Area under fumigation, DO NOT ENTER/NO ENTRE,"
- "Methyl Bromide and Chloropicrin Fumigants in use,"
- the date and time of fumigation, and
- name, address, and telephone number of the applicator.

Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration level of chloropicrin is measured to be less than 0.1 ppm AND the air concentration level of methyl bromide is measured to be less than 5 ppm. Signs must remain legible during the entire posting period.

Only a certified applicator (or someone under his/her supervision) may remove warning signs at entrances to fumigated structures.

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AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements in this labeling about personal protective equipment, restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

No instructions elsewhere on this labeling relieve users from complying with the requirements of the WPS.

ENTRY RESTRICTIONS:

Greenhouse Soil Fumigation: Entry (including early entry that would otherwise be permitted under the WPS) by any person – other than a correctly trained and equipped handler who is performing a handling task permitted by the WPS – is PROHIBITED in the entire greenhouse (entire enclosed structure/building) from the start of application until 48 hours after application AND until the air concentration level of chloropicrin in the working area is measured to be less than 0.1 ppm AND the air concentration level of methyl bromide in the working area is measured to be less than 5 ppm. Until the aeration of the soil is complete (usually 10-14 days), non-handlers are permitted in the greenhouse ONLY while the air concentration level of chloropicrin in their working area remains less than 0.1 ppm AND the air concentration level of methyl bromide in their working area remains less than 5 ppm. If tarps are used for the application, non-handler entry is prohibited during tarp removal and until the air concentration level of chloropicrin in the working area is measured to be less than 0.1 ppm AND the air concentration level of methyl bromide in the working area is measured to be less than 5 ppm.

Outdoor Soil Fumigation: Entry (including early entry that would otherwise be permitted under the WPS) by any person – other than a correctly trained and equipped handler who is performing a handling task permitted on this labeling – is PROHIBITED from the start of application until 48 hours after application. In addition, if tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

NOTIFICATION: Notify workers of the application by warning them orally and by posting fumigant warning signs, as described in the "Placarding of Fumigated Areas," section of this labeling. Post the fumigant warning sign instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, size, and timing of posting and removal.

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Greenhouses - Soil or Space Fumigation: Post the fumigant warning signs outside all entrances to the entire greenhouse (entire enclosed structure/building).

Outdoor Soil Fumigation: Post the fumigant warning signs at entrances to treated areas.

PPE FOR ENTRY DURING THE ENTRY-RESTRICTED PERIOD: PPE for entry that is permitted by this labeling is listed in the "Hazards to Humans and Domestic Animals" section of this labeling.

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STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

PESTICIDE STORAGE: 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. 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.

PESTICIDE 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, either contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance, or follow registrant's instructions for return of partially empty cylinders.

CONTAINER DISPOSAL: Return empty or partially empty cylinder to the manufacturer or distributor for reuse. When cylinder is empty, close valve by turning clockwise until hand tight, 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.

RETURN OF CYLINDERS:

- 1) Cylinders are the property of the manufacturer or distributor where purchased and should be returned promptly by collect freight.
- 2) Do not ship cylinders without safety caps or valve protection bonnets.
- 3) When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instruction.
- 4) Containers should never be refilled by the consumer or used for any other product or purpose.

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SPECIFIC DIRECTIONS FOR USE

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.

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.

Do not fumigate with this product when soil temperature is below 50° F. at 6-8 inches.

PRECAUTIONS FOR USAGE PRIOR TO, DURING, AND AFTER SOIL FUMIGATION

Prior to Fumigation: Post all treated areas with warning signs.

Comply with all local regulations and ordinances. Obtain an application permit from Agricultural Regulatory Agencies as required.

Never fumigate alone. It is imperative always to have an assistant and proper protective equipment in case of accidents.

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.

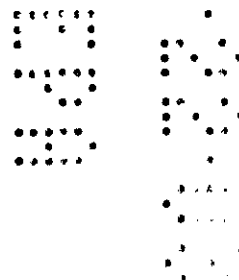
Handle this fumigant in the open, with the operator "upwind" from the container where there is good ventilation.

Check fumigant pressure systems for leaks before beginning operation.

Two trained persons must be present during introduction of the fumigant.

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 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."

All trash should be cleared from the field before starting fumigation.



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During Fumigation: This fumigant should not be applied when there is an atmospheric inversion. Since uncomfortable concentrations of chloropicrin may drift to nearby areas, immediately cover treated area with plastic tarpaulin for a minimum of 48 hours.

Do not lift injection shanks to turn at the end of a pass until fumigant has drained from system following closure of shutoff valve.

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.

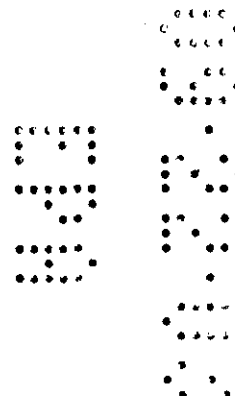
When changing the cylinders, be certain they are turned off and fumigant system is not under pressure. Do not open the system when there are people or structures downwind.

After Fumigation: Keep pets, livestock, and other domestic animals out of the treated area during application, during the exposure period as specified for applications in Directions for Use, and during removal of tarpaulin.

Two trained persons must be present during removal of tarpaulins.

Spill and Leak Procedures for Soil Fumigation: In case of a rupture of hose or fitting while applying fumigant, immediately stop tractor and motor. Evacuate everyone from the immediate area of the spill or leak. Wear the personal protective equipment (including prescribed respirators) specified in the Hazards to Humans section of this labeling for entry into affected area to correct problem. Approach from upwind to make necessary repairs. Do not enter area without the required PPE until the spill has evaporated or the leak has been fixed.

Contaminated soil, water, and other cleanup debris are a toxic hazardous waste. Report spill to the National Response Center (800-424-8802) if the reportable quantity of 1000 lbs. is exceeded.



GENERAL INFORMATION

50-50, a preplant soil fumigant, is used for the control of soil-borne pests such as:

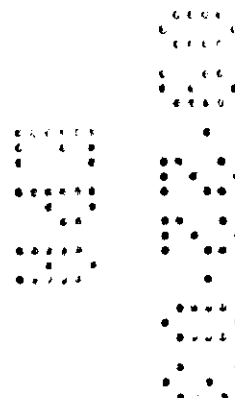
Wireworms, June beetle larvae, white grubs and garden symphylian in the soil at the time of planting.

Soil-borne fungi, including Verticillium, Fusarium, Pythium, Rhizoctonia, Phytophthora, Pyrenochaeta, Sclerotinia, Sclerotium, Armillaria, and the clubroot organism, Plasmodiophora.

Nematodes (such as Criconemoides, Tylenchus, Pratylenchus, Xiphinema and Paratylenchus species)

Broadleaf and grassy weeds, such as annual bluegrass, broomrape, common lambsquarters, torpedograss, nutsedge, Bermudagrass and quackgrass at higher rates.

50-50 is not effective against mallow, filaree, dodder, some species of clover, and certain other hard seeded weeds. Crops listed below can be treated.



SOIL PREPARATION

Before treatment the soil should be in condition for planting and with sufficient moisture to support seed germination.

If fumigation is being done to control nutsedge, till the soil to a depth of at least 15".

APPLICATION

Apply with chisels spaced from 12" to 18" apart, and inject 50-50 to a depth of 5" to 8" below soil surface. Seal fumigant with a drag or cultipacker immediately behind chisels and then cover with a gas-tight tarpaulin.

DOSAGE TABLE

Crop To Be Planted:	Lbs. 50-50 per Acre^{1,2}
Strawberries.....	300-480
Tomatoes.....	300-480
Cauliflower.....	300-480
Broccoli.....	300-480
Muskmelons ⁵	300-480
Peppers.....	300-480
Eggplants.....	300-480
Floral Crops ⁴	400-540
Nursery	
Crops ⁴	400-540
Plant & Seed Beds ^{3,4}	400-540

¹ 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. The usual chisel spacing for methyl bromide treatment is 12" and it is assumed that each chisel treats a 12" strip when injected at a depth of 5" to 8".

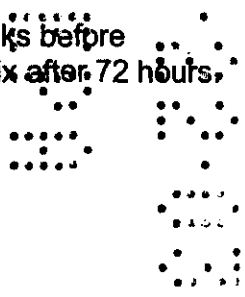
² Use the higher rates for nutsedge control.

³ Plants grown for transplanting.

⁴ Growing difficulties in treated soil may be experienced with Carnations, Conifers, Delphiniums, Holly, Multiflora Rosa, Salvia, Snapdragons, and certain other crops.

⁵ For use on muskmelons, (all *Cucumis melo* melons, excludes watermelons), cantaloupes, Persian melons, honeydew melons, casabas, crenshaws, mango melons and their hybrids.

After 48 hours remove tarpaulin and allow the soil to aerate for two weeks before planting. Pepper seeds can be direct seeded through the use of plug mix after 72 hours.



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CITRUS SOIL TREATMENT FOR CONTROL OF PHYTOPHTHORA* IN FLORIDA SANDY SOILS

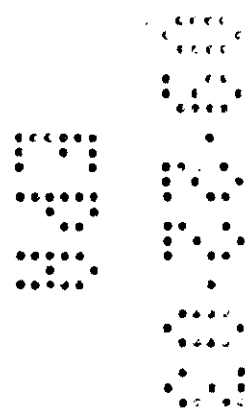
This is a preplant or replant treatment. Trees which are planted in this treated soil will not have harvestable fruit for a period of at least 24 months. Use a minimum of 1 1/3 lbs. /100 sq. ft. Expose to fumigation for 96 hours covering treated area with a 4-mil tarpaulin. Will control disease to a depth of 4 feet. Aerate 2 weeks before setting transplants in treated area.

Apply with chisels spaced 12 inches apart to a depth of 8 inches. Seal fumigant with a drag or cultipacker immediately behind chisels. Cover with a gas-proof tarpaulin. Remove tarpaulin after recommended fumigation period and aerate soil for 2 weeks before planting. If odors persist, disc or plow the soil to assist aeration.

Do not apply 50-50 when there is little or no air movement.

Do not apply near buildings inhabited by humans or livestock or in area adjacent to fields where valuable crops are growing.

*Phytophthora diseases controlled are root rot and crown rot.



NOTE:

Following soil fumigation, undesirable concentrations of chloropicrin may drift to nearby areas. If this occurs, immediately cover treated area with a plastic tarpaulin. Leave tarpaulin on overnight and remove during the daytime. Recover the area if eye irritation indicates that the undesirable concentration is continuing. These concentrations are most likely to occur in the evening or at night when the air is most likely to be static in movement. Do not make application of 50-50 when there is little or no air movement or there is an inversion condition in the atmosphere.

NOTE CAREFULLY: Following fumigation, the level of soluble salts and ammonia nitrogen may be raised. This is most likely to occur when heavy rates of fumigant and fertilizers are applied to soils that are acid, wet, cold, or high in organic matter. Fertilizers containing ammonium salts should not be used. Apply only fertilizers containing nitrates until after the crop is well established and the soil temperature is above 65° F. in order to avoid ammonia injury, nitrate starvation, or both. After fumigation, fertilize as indicated by soil test to protect against injury to plant roots. It is best that highly acid soils be limed before application to stimulate nitrification and reduce the possibility of ammonia toxicity.

NOTICE

Many pesticidal chemicals are poisonous and may leave a toxic residue on the plants to which they are applied. The U.S. Food and Drug Administration has established maximum amounts of such pesticide that may remain on raw agricultural products at harvest, and it is the user's responsibility to see that there is no residue on such crops at harvest in excess of these amounts. The "Fumigation Directions" are based on the best available information, and if followed carefully should not leave excessive residues at harvest. However, AmeriBrom, Inc. assumes no responsibility as to their accuracy nor for any loss due to excessive residues.

Warranty: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor 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. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herewith.

