

## HANDLING PRECAUTIONS

**D.A.N.G.E.R**  **P.O.I.S.O.N**

### HAZARD TO HUMANS AND DOMESTIC ANIMALS:

This fumigant is a highly hazardous material and must be handled with care only by those individuals experienced with its proper use. Consult your Soil Chemicals Corp. representative for correct procedure.

The Chloropicrin portion of this fumigant has the capacity to cause marked irritation to the upper respiratory tract, and is a strong lachrymator (tear-producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may become temporarily blinded and panic-stricken and that in turn may lead to accidents.

### PRECAUTIONS TO FOLLOW PRIOR TO FUMIGATION:

1. Before using this fumigant, read and follow all label directions and product literature.
2. Comply with all local regulations and ordinances. Obtain an application permit from the Agricultural Commissioner.
3. It is advisable to supply your physician with information on Methyl Bromide and Chloropicrin. Contact Soil Chemicals Corp. for literature on Methyl Bromide and Chloropicrin.
4. 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.
5. Never fumigate alone. It is imperative to always have an assistant and proper protective equipment available to aid in case of accidents.
6. 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.
7. Handle this fumigant in the open, with the operator "up wind" from the container where there is good ventilation.
8. **RESPIRATORY PROTECTION:** Do not breathe fumes. A gas mask must be carried in each service vehicle. Because of the lachrymatory action of this fumigant, it will serve as its own identifying agent to help prevent over-exposure. However, if vapor exposure may occur in a confined space, a full face gas mask with an air supply (tank or airline) is recommended. Read and follow the gas mask manufacturers' recommendations. A full face gas mask with a fresh black canister meeting NIOSH specifications for organic vapors can also be used under certain circumstances where the vapor concentration is known to be under 2% by volume (5 lb. per 1000 cu ft.). Canisters should be used for no more than that period recommended by the manufacturer. Destroy used canisters by crushing. Chloropicrin must not be depended upon as an identifying agent when a canister gas mask is used.
9. Wear safety glasses when working with this fumigant. Exposure of eyes to splashing liquid fumigant may render an individual helpless.
10. Do not spill. If liquid fumigant splashes or spills, on shoes or clothing, remove them at once, as fumes from the contaminated area will be an intolerable source of irritation. If liquid contacts skin where rings or bandages are worn, remove them and wash exposed skin with soap and water. Air exposed shoes or clothing outside and do not wear until free of all traces of fumigant.
11. Do not wear gloves.
12. Always have adequate clean water available to wash skin and/or flush eyes. 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. The water must be drinkable but in containers marked (water not for drinking).
13. Check fumigant pressure system for leaks before beginning application.

### PRECAUTIONS TO FOLLOW DURING FUMIGATION:

14. 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 areas with plastic tarpaulin for a minimum of 48 hours.
15. Do not apply to areas adjacent to fields where crops are growing or near buildings inhabited by humans or livestock, unless the area is properly covered with gas-tight tarpaulins as specified by the local Agricultural Commissioner.
16. Do not lift injection shanks to turn at end of a pass until fumigant has drained from system following closure of shutoff valve.
17. Trash pulled by the shanks to the ends of the field when fumigating must be covered by lifting the shanks, then covering the trash with polyethylene film before making the turn for the next pass.
18. In case of a rupture of hose or fitting while applying fumigant, immediately stop tractor and motor. Get off tractor and get to a place where the problem can be observed without exposure to fumes. Approach from upwind with respiratory protection if required, and make necessary repairs.
19. 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.

SEE HANDLING PRECAUTIONS CONTINUED IN THE THIRD COLUMN

## 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.

# PIC-BROM 33

## PREPLANT SOIL FUMIGANT

<b>ACCEPTED</b> JAN 4 1984 U.S. DEPARTMENT OF AGRICULTURE Fumigant as an active ingredient registered under EPA Reg. No. 8536-5	ACTIVE INGREDIENTS	100%
	METHYL BROMIDE	67%
	CHLOROPICRIN	33%

BEST DOCUMENT AVAILABLE

## KEEP OUT OF REACH OF CHILDREN

**D.A.N.G.E.R**  **P.O.I.S.O.N**

- EXTREMELY HAZARDOUS LIQUID AND VAPOR UNDER PRESSURE
- INHALATION MAY BE FATAL OR CAUSE DELAYED LUNG INJURY
- LIQUID AND VAPOR CAUSE BURNS WHICH MAY BE DELAYED

DO NOT BREATHE VAPOR • USE ONLY WITH ADEQUATE VENTILATION • DO NOT GET IN EYES, ON SKIN, ON CLOTHING • DO NOT USE ORDINARY RUBBER PROTECTIVE CLOTHING INCLUDING GLOVES AND BOOTS • KEEP AWAY FROM HEAT • KEEP CHILDREN AND ANIMALS AWAY FROM AREAS UNDER TREATMENT • DO NOT SPILL OR DISCHARGE CONTENTS OUTSIDE OF AREAS CONFINED FOR TREATMENT • IN CASE OF EMERGENCY, HAVE AVAILABLE A FULL FACE GAS MASK • BEFORE USING, READ SIDE PANEL FOR ADDITIONAL SAFETY PRECAUTIONS.

### SEND FOR A DOCTOR IMMEDIATELY IN CASE OF EXPOSURE

#### FIRST AID

**IF INHALED** — Carry Patient To Fresh Air. Call Physician At Once. Make Sure Patient Can Breathe Freely. Keep Patient Warm. Give Artificial Respiration If Breathing Has Stopped. Oxygen Should Be Administered Only By Qualified Personnel.

**IF ON SKIN** — Immediately Remove All Contaminated Skin Covering Including Shoes, Clothing And Adhesive Or Other Bandages. Wash Skin Thoroughly With Soap And Water. If Irritation Or Blisters Develop, Get Medical Attention. Do Not Reuse Shoes Or Clothing Until Free Of All Contamination.

**IF IN EYES** — Flush Immediately With Plenty Of Water For At Least 15 Minutes And Get Medical Attention

**NOTE TO PHYSICIAN** — Keep Patient At Rest And Under Observation For 24 To 48 Hours.

## SOIL CHEMICALS CORPORATION

P.O. BOX 531 MORGAN HILL, CALIF 95037

E.P.A. EST. 8536-CA-1, 2, 3, 4; FL-1  
E.P.A. REG. NO. 8536-5

NET CONTENTS ..... LBS.

**HANDLING PRECAUTIONS (CONTINUED)**  
**PRECAUTIONS TO FOLLOW AFTER FUMIGATION:**

20. Post all treated areas with warning signs. Available from Soil Chemicals Corp.
21. Keep all animals, children and unauthorized people away from area under fumigation during 48 hour exposure period and during removal of tarpaulin.
22. Do not feed domestic animals on crop residues unless an E.P.A. tolerance exists for such use. Examples are, but not limited to, seeded or volunteer cover crops growing on soil which has been fumigated as a preplant treatment for a registered crop use.
23. **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 or nitrate starvation, or both, 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° F. Liming highly acid soils before fumigation stimulates nitrification and reduces the possibility of ammonia toxicity.

**ENVIRONMENTAL HAZARD**

This fumigant is toxic to fish, and wildlife. It should not be discharged where it will drain into lakes, streams, ponds, or public water. Do not contaminate water by cleaning of equipment or disposal of wastes.

**CHEMICAL HAZARD**

Do not use containers or application equipment made of magnesium, aluminum or their alloys, as under certain conditions this fumigant may be severely corrosive to such metals. Do not permit water to be used to clean fumigant pressure system as corrosion will result. Diesel oil is satisfactory for this purpose.

**DIRECTIONS FOR USE**

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

**BEST DOCUMENT AVAILABLE**

**STORAGE AND RETURN OF FUMIGANT CYLINDERS**

**STORAGE**

- Do not store with food, feeds, or clothing  
 Storage areas should be:
- (1) Secured by lock and key.
  - (2) Posted as pesticide storage
  - (3) Away from dwellings and work areas
  - (4) Dry and cool
  - (5) Well ventilated

**SPILL OR LEAK PROCEDURE**

Evacuate affected area, use respiratory protection and correct problem. Move cylinder outdoors or to an isolated location. Wash fumigant into soil or cover with soil if possible. Allow to evaporate. Do not permit re-entry to area until free of fumes.

**RETURN OF CYLINDERS**

- (1) Cylinders are the property of:  
 Soil Chemicals Corp.                      Soil Chemicals Corp.  
 2060 East 220th Street                      7610 Hwy 41 North  
 Long Beach, CA 90810                      Palmetto, FL 33561  
 and should be returned promptly by collect auto freight
- (2) When a cylinder is empty, the valve should be closed, the safety cap screwed on the valve outlet, and the protective bonnet replaced prior to its return to the shipper
- (3) Do not ship cylinders without safety caps or valve protection bonnets
- (4) When a cylinder is partially full and there is no further requirement for the product, contact Soil Chemicals Corp. for return instructions
- (5) Containers should never be refilled by the consumer or used for any other product or purpose

**SHIPPING**

This fumigant is classified in the U.S. Department of Transportation Hazardous Materials Regulations as Methyl Bromide and more than 2% Chloropicrin mixture, Liquid, class B poison and no exemptions from specification packaging, marking and labeling are allowed. Describe empty cylinders as having formerly contained Methyl Bromide and more than 2% Chloropicrin mixture, Liquid. Do not ship with food, feeds, or clothing

**HANDLING**

- (1) The valve protection bonnet and safety cap should be removed only when fumigant is about to be removed from the cylinder
- (2) Cylinders should never be subjected to rough handling or to abnormal mechanical shock such as dropping, bumping, dragging or sliding
- (3) Rope slings, hooks, tongs, and similar handling devices should not be used for unloading cylinders
- (4) A suitable hand truck, fork truck, or similar device to which the cylinders can be firmly secured should be used for transporting the heavier cylinders

**DIRECTIONS FOR USE**

**GENERAL INFORMATION**

This material is a preplant soil fumigant for the control of soil-borne pests as listed: Diseases caused by certain species of *Rhizoctonia*, *Pythium*, *Fusarium*, and *Phytophthora*; Wireworms, nematodes (including *Meloidogynae*, *Pratylenchus*, *Tylenchus*, *Xiphinema*, *Cricanemoides*, and *Paratylenchus*, species), broadleaf and grassy weeds (including: quackgrass, annual bluegrass, broomrape, common lambsquarters, torpedograss, nutsedge, and bermudagrass). This fumigant is not effective against mallow, filaree, dodder, some species of clover, and certain other hard seeded weeds. It is to be used in soil to be planted to the crops listed below.

**SOIL PREPARATION**

Prior to application the soil should be in condition for planting and with sufficient moisture to support seed germination. When fumigating for the control of nutsedge, the soil should be ripped to a depth of at least 15 inches.

**APPLICATION**

Apply this fumigant by means of chisels spaced from 12" to 18" apart, and 5 to 8 inches below the soil surface, to seal the fumigant after application, drag or culpick immediately behind chisels, and then cover with a gas-tight tarpaulin.

**DOSAGE TABLE**

Land To Be Planted To:	Lbs. Per Acre <sup>1, 2</sup>
Strawberries	225-350
Tomatoes	225-350
Pineapples	225-350
Cauliflower	225-350
Broccoli	225-350
Melons	225-350
Peppers	225-350
Eggplants	225-350
Floral Crops	225-400
Nursery Crops	225-400
Plant & Seed Beds <sup>3</sup>	225-400

<sup>1</sup>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.

<sup>2</sup>Use the higher rates for nutsedge control.

<sup>3</sup>Plants grown for transplanting.

**AERATION**

Remove tarpaulin after 48 hours. Allow the soil to aerate for two weeks before planting. If odors of fumigant persist beyond this two-week period, disc or plow the soil to help aeration.

**FOR USE IN CALIFORNIA ONLY ASPARAGUS AND LETTUCE**

APPLICATION Follow application directions as described above

**DOSAGE AND USE TABLE**

CROP	USE	RATE	AERATION
Asparagus	Fungus diseases ( damping off, Pythium spp. weeds (grasses) Nematodes	450-600 lbs/A	Remove tarpaulin after 24-48 hours
Lettuce	Big Vein	300-450 lbs/A	Remove tarpaulin after 24-48 hours
	Weeds including cereals; Nematodes	450-600 lbs/A	Remove tarpaulin after 24-48 hours

**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 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 above

**USE**

For control of white rot (weeds (grasses) and Nematodes

**DOSAGE**

450 lbs/Acre

**LIMITATION**

Use restricted to west of the Rocky Mountains, do not treat any field more than once every twelve months

**Citrus Soil For Control of Phytophthora in Florida Sandy Soils** This is a preplant or repeat treatment. Trees which are planted in the treated soil will bear harvestable fruit for a period of at least 24 months. Use a minimum of 1.5 pounds per 100 square feet. Prepare for fumigation for 24 hours covering treated area with a 4 mil tarpaulin. At conclusion, disperse to a depth of 4 feet. Aerate 2 weeks before setting plants in treated area.

Greenhouse Fumigation. used in greenhouse, the fo

The use of Methyl Bromide and plant life. Special precautions minimized. It is the responsibility to see that all safety precau

Before the fumigation operation, have conducted proper tests of safety equipment, remove fumigation, and inspected

If a wind is blowing, all immediately after injection protective equipment should be found the source. During this operation all maximize ventilation. The containing at least the sign words: Area under fumigation, name of the fumigant, name and address of the area is completely aerated. Exposure time should be 2

Although this fumigant always indicate the absence person be allowed to enter equipment from the time obtained using an appropriate following equipment must 1) one or more full face gas more replacement block d one or more halide leak d

A 15 ppm threshold limit defined as the concentration persons entering or within equipment should not enter Bromide concentrations of

**NOTICE:** Seller warrants reasonably fit for the purpose under normal conditions. **MERCHANTABILITY** or **F** extends to the use of the conditions, or under conditions the risk of any such use.

**BEST DOCUMENT AVAILABLE**

**POISON**

## DIRECTIONS FOR USE

### GENERAL INFORMATION

This material is a preplant soil fumigant for the control of soil-borne pests as listed: Diseases caused by certain species of *Rhizoctonia*, *Pythium*, *Fusarium*, and *Phytophthora*; Wireworms, nematodes (including *Meloidogynae*, *Pratylenchus*, *Tylenchus*, *Xiphinema*, *Criconemoides*, and *Paratylenchus*, species), broadleaf and grassy weeds (including quackgrass, annual bluegrass, broomrape, common lambsquarters, torpedograss, nutsedge, and bermudagrass). This fumigant is not effective against mallow, filaree, dodder, some species of clover, and certain other hard seeded weeds. It is to be used in soil to be planted to the crops listed below.

### SOIL PREPARATION

Prior to application the soil should be in condition for planting and with sufficient moisture to support seed germination. When fumigating for the control of nutsedge, the soil should be ripped to a depth of at least 15 inches.

### APPLICATION

Apply this fumigant by means of chisels spaced from 12" to 18" apart, and 5 to 8 inches below the soil surface, to seal the fumigant after application, drag or cultipack immediately behind chisels, and then cover with a gas-tight tarpaulin.

### DOSAGE TABLE

Land To Be Planted To:	Lbs. Per Acre <sup>1, 2</sup>
Strawberries	225-350
Tomatoes	225-350
Pineapples	225-350
Cauliflower	225-350
Broccoli	225-350
Melons	225-350
Peppers	225-350
Eggplants	225-350
Floral Crops	225-400
Nursery Crops	225-400
Plant & Seed Beds <sup>3</sup>	225-400

<sup>1</sup>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.

<sup>2</sup>Use the higher rates for nutsedge control.

<sup>3</sup>Plants grown for transplanting.

### AERATION

Remove tarpaulin after 48 hours. Allow the soil to aerate for two weeks before planting. If odors of fumigant persist beyond this two-week period, disc or plow the soil to help aeration.

### FOR USE IN CALIFORNIA ONLY ASPARAGUS AND LETTUCE

APPLICATION: Follow application directions as described above.

#### DOSAGE AND USE TABLE

CROP	USE	RATE	AERATION
Asparagus	Fungus diseases (damping off, <i>Pythium</i> spp.) weeds (grasses, Nematodes)	450-600 lbs. A	Remove tarpaulin after 24-48 hours.
Lettuce	Big Vein	300-450 lbs. A	Remove tarpaulin after 24-48 hours.
	Weeds (including crabgrass), nematodes	450-600 lbs. A	Remove tarpaulin after 24-48 hours.

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

### 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. Inland to be planted to early spring crops. Follow application directions as described above.

USE: For control of white rot, weeds (grasses), and nematodes.

DOSAGE: 450 lbs. Acre.

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

**Citrus Soil For Control of Phytophthora in Florida Sandy Soils:** This is a preplant or preplant 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 100 pounds per 100 square feet. Expose to fumigation for 24 hours, covering treated area with a 4 mil tarpaulin. A control sealer to a depth of 4 feet. Aerate, weeds before setting trees 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:

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 (includes 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.

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 resealed immediately.

During this operation all windows and doors should be open and fans operating to maximize ventilation. 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.

Although this 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 full face gas masks or self-contained breathing apparatuses, 2) one or more replacement black canisters per mask or air bottles per breathing apparatus, 3) one or more halide leak detectors.

A 15 ppm threshold limit value (TLV) for Methyl Bromide has been established. TLV is defined as the concentration below which personal protective devices are not required for persons entering or within a hazardous environment. Persons not wearing protective equipment should not enter the fumigated area until monitoring devices show Methyl Bromide concentrations of 15 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.

BEST DOCUMENT AVAILABLE



**POISON**

6

UN 1581  
METHYL BROMIDE  
AND MORE THAN  
2% CHLOROPICRIN  
MIXTURE, LIQUID

BEST AVAILABLE COPY

**PRECAUTIONARY STATEMENTS  
HAZARD TO HUMANS  
AND DOMESTIC ANIMALS:  
DANGER**

**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 BREATHE 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 WHICH 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. EARLY SYMPTOMS OF CHLOROPICRIN OVEREXPOSURE ARE LACRYMATION, RESPIRATORY DISTRESS AND VOMITING.

**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.
3. Comply with all local regulations and ordinances.
4. It is advisable to supply your physician with information on Chloropicrin and Methyl Bromide. Literature is available from your dealer or distributor.
5. 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 device (such as a Draeger gas factor) does not exceed 5 ppm (20 mg/m<sup>3</sup>), 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' Survivor 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 socks that are cleaned after each wearing. Do not wear jewelry, gloves or tight clothing when handling Methyl Bromide. Methyl Bromide is heavier than air and may be trapped in folds, 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 application, immediately remove clothing, shoes, and socks. Do not reuse contaminated clothing or shoes until thoroughly cleaned and aerated. Breathed 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, see also the above, as fumes will be an intolerable source of irritation.

**WARNING SIGNS: (structural, first entrance to the fumigation area with signs bearing in English and Spanish. (1) The original words DANGER/PELIGRO and the skull and crossbones symbol. (2) The statement, "Area under fumigation. DO NOT ENTER/NO ENTRAR." (3) The date of fumigation. (4) Name of fumigant used. (5) Name, address, and telephone number of the applicator.**

1. Do not remove a placard until the treated area is completely aerated. To determine whether a spill 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.
2. Placards must be placarded with O.P.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. Wear the SCBA or combination air-supplied/SCBA respirator for entry into the affected area to correct problem. Move leaking or damaged cylinders or containers outside or to an isolated location. Placard spill area with DANGER/PELIGRO and skull and crossbones symbol. 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/m<sup>3</sup>) and chloropicrin less than 0.1 ppm.
2. Contaminated soil, water, and other clean-up waste is a toxic hazardous waste. Report spill to the National Response Center (800-424-8802) if reportable quantity of 100 lbs. is exceeded.

**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.

**PIC-BROM 33**  
**PREPLANT  
SOIL FUMIGANT**

**ACTIVE INGREDIENTS:**

METHYL BROMIDE 67%

CHLOROPICRIN 33%

**INERT INGREDIENTS: 0%**

**TOTAL 100%**

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**



**PELIGRO**

**POISON**

PRECAUCION AL USUARIO: Se usado en los Ingles, se use este producto hasta que la etiqueta se haya sido completamente cumplimento.

**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. Feel 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 4 hours. 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 FOR SOIL FUMIGATION USE**

**BEFORE 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 area. This water must be potable and in containers marked "disinfection water not to be used for drinking." Field should be reasonably free of trash before starting the fumigation.

SEE PRECAUTIONS CONTINUED IN THIRD COLUMN



Soil  
Chemicals  
Corporation  
PRODUCTS

P.O. BOX 782 · HOLLISTER, CA 95024



E.P.A. EST. 8536-CA-1, 2, 3, 4; FL-1

E.P.A. REG. NO. 8536-05

NET CONTENTS . . . . . LBS.

PRECAUTIONS, CONTINUED:

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...

FOLLOWING FUMIGATION:

- 1. Post all treated areas with warning signs, available from your dealer, representative.
2. No children, blind people, or animals should be in the fumigation area for 48 hours.

SPILL AND LEAK PROCEDURE:

- 1. In case of a rupture of hose or fitting while applying fumigant, immediately stop treating and stop. Evacuate immediate area in spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct the problem.

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 acid, wet, acid, or high in organic matter.

PRECAUTIONS FOR 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.
2. When used for fumigation of enclosed spaces (houses and other structures, warehouses, vaults, chambers, greenhouses, trucks, vans, boxcars, 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.

VENTILATION AND REENTRY:

- 1. After fumigation, treated areas must be aerated until the level of methyl bromide is below 5 ppm (250 ppb/cm).
2. Do not allow entry into the treated area by any person before this time unless local, clothing and respiratory protective device (SCBA or combination air-supplied/SCBA) is worn.

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. Treat as a pesticide storage area. Do not contaminate water, food, or feed by storage, handling, moving or handling containers should wear protective clothing. Open container only in a well-ventilated area wearing protective clothing, and respiratory protection if necessary.

RETURN OF CYLINDERS:

Cylinders are the property of Soil Chemicals Corporation. Cylinders should be returned promptly by collect auto freight bill shipping cylinders with a certificate of return protection. 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 and more than 2% Chloropicrin mixture, Class 2.3 poison (inhalation hazard) and to exceptions from specifications, packaging, marking and labeling are allowed describe empty cylinders as having low contained Methyl Bromide and more than 2% Chloropicrin mixture (inhalation hazard). Do not ship with foods, feeds, or clothing.

DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal. Heavy metal wastes are toxic. Proper disposal of excess pesticide, spray mixture, or residue is a violation of Federal Law. If these wastes are to be disposed of by use according to label instructions, they must be disposed of by use according to label 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 KNOWLEDGEABLY AWARE OF THE HAZARDS, AND TRAINED IN THE USE OF REQUIRED RESPIRATOR EQUIPMENT AND DETECTOR DEVICES, EMERGENCY PROCEDURES, AND PROPER USE OF THE FUMIGANT.

GENERAL INFORMATION: This fumigant is a preplant soil fumigant for control of soil-borne pests as listed. Diseases caused by certain species of Rhizoctonia, Phytophthora, Fusarium, and Pythium-like organisms, nematodes (including Meloidogyne, Pratylenchus, Ditylenchus, Trichodina, and Paratylenchus species), broadleaf and grassy weeds (including: Quackgrass, annual bluegrass, broomsrape, common lambsquarters, torpedograss, nutgrass, and bermudagrass). This fumigant is not effective against yellow filaree, dodder, some species of clover, and certain other hard seeded weeds. It is to be used in soil to be planted to the crops listed below.

SOIL PREPARATION: Prior to application, the soil should be in condition for planting and with sufficient moisture to support seed germination. When fumigating for the control of nutgrass, the soil should be ripped to a depth of at least 15 inches.

APPLICATION: Apply this fumigant by means of chisels spaced from 12 to 18" apart and 5 to 6 inches below the soil surface. To seal the fumigant after application, drag or moldboard immediately behind chisels and then cover with a gas-tight tarpaulin.

DOSEAGE TABLE:

Table with 2 columns: Land to be fumigated (Acres) and Lbs. Per Acre. Lists crops like Broccoli, Cabbage, Eggplants, etc.

- 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.
2. Use the higher rates for nutgrass control.
3. Plants grown for transplanting.

APPLICATION: Remove tarpaulin after 48 hours. Allow the soil to aerate for 2 weeks before planting. If signs of fumigant persist beyond this two-week period, disc or plow the soil to help aeration.

FOR USE WEST OF ROCKY MOUNTAINS ONIONS, DIRECT SEEDED

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

USE: For control of white rot, weeds (grasses) and nematodes.
DOSEAGE: 450 lbs/Acre
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 above.

Table with 4 columns: CROP, USE, DOSEAGE AND USE TABLE, and REMARKS. Lists Asparagus and Lettuce with specific treatments.

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.

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This fumigant or a treated soil will not be used to fumigate a structure. Tarpaulin will cover before setting traps.

This fumigant may be greenhouse. The following...

BEFORE TO FUMIGATION: Precautionary instructions must be read and followed. It is the responsibility of the fumigator to observe the fumigation job...

DURING FUMIGATION: If applied from a previous fumigation and tarps are found the fumigation operation should be terminated.

PACKAGING OF AREA: Fumigated area is to be marked with warning signs.

PROTECTIVE EQUIPMENT: A minimum of chlorine bromide under no circumstances should be used in the fumigation area...

VENTILATION AND REENTRY: After fumigation, treated areas must be aerated until the level of methyl bromide is below 5 ppm (250 ppb/cm).

USE: For control of white rot, weeds (grasses) and nematodes.

DOSEAGE: 450 lbs/Acre. LIMITATION: Use restricted to west of the Rocky Mountains.

METHYL BROMIDE

Table with 2 columns: Concentration (ppm) and Color. Shows color changes from 0 to 1000 ppm.

Note: Color change is not a reliable indicator of fumigant concentration.



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 effluents 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.

#### CHEMICAL HAZARD

Do not use containers or application equipment made of magnesium, aluminum, or their alloys, as under certain conditions this fungicide may be severely corrosive to such metals. Do not permit water to be used to clean fuel-jet pressure systems as corrosion will result. Diesel oil is satisfactory for this purpose.

#### 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.

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# 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 AMBIDEXTERABLE ABOUT THE HAZARDS, AND TRAINED IN THE USE OF REQUIRED RESPIRATOR EQUIPMENT AND DETECTOR DEVICES, EMERGENCY PROCEDURES, AND PROPER USE OF THE FUMIGANT.

**GENERAL INFORMATION:** This fumigant is a preplant soil fumigant for control of soil-borne pests as listed. Diseases caused by certain species of *Phytophthora*, *Fusarium*, and *Pythium* (wireworms, nematodes (including *Merodiplosa*, *Pratylenchus*, *Tylenchus*, *Siphiidae*, *Criconeimoides* and *Paratylenchus* species), broadleaf and grassy weeds (including quackgrass, annual bluegrass, *Trisetum*, *Limonum*, *Lambquarters*, *torpedograss*, *nutgrass*, and *bermudagrass*). This fumigant is not effective against mallow, filaree, jodder, some species of clover, and certain other hard seeded weeds. It is to be used in soil to be planted to the crops listed below.

**SOIL PREPARATION:** Prior to application, the soil should be in condition for planting and with sufficient moisture to support seed germination. When fumigating for the control of nutgrass, the soil should be ripped to a depth of at least 15 inches.

**APPLICATION:** Apply this fumigant by means of chisels spaced from 12 to 15" apart and 5 to 6 inches below the soil surface. To seal the fumigant after application, drag or rollpack immediately behind chisels, and then cover with a gas-tight tarpaulin.

**RATE TABLE**

Land to be Planted to	Lbs. Per Acre 1,2
Broccoli	225-350
Cauliflower	225-350
Edible Beans	225-350
Florida Citrus	225-400
Muskmelon	225-350
Watermelon	225-400
Peppers	225-350
Pineapples	225-350
Plant and Seed beds	225-350
Strawberries	225-350
Tomatoes	225-350

- Row or bed applications may be made at the broadcast rate, but the amount used will be proportionately less per acre depending on the row spacing and width of treatment in the row or bed.
- Use the higher rates for nutgrass control.
- Plants grown for transplanting.

**CAUTION:** Remove tarpaulin after 48 hours. Allow the soil to aerate for 2 weeks before planting. If areas of fumigant persist beyond this two-week period, disc or plow the soil to help aeration.

## 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 above.

**USE:** For control of White Rot, weeds (grasses) and Nematodes.  
**RATE:** 450 lbs/Acre  
**CAUTION:** 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 above.

CROP	USE	RATE	CAUTION
Asparagus	Fungus diseases (damping off (Hythium spp) Weeds (grasses) Nematodes	450-600 lbs/A	Remove tarpaulin after 48 hrs
Lettuce	Weeds (including grasses) Nematodes Big Vein	450-600 lbs/A 100-450 lbs/A	Remove tarpaulin after 48 hrs

**CAUTIONS:** For use in California only for direct seeded asparagus during year of treatment. Use in 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. Exposure 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:

**BEFORE 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 resealed immediately during this operation. All windows and doors should be closed and fans operating to maximize ventilation.

**TERMINATION OF USE:** The fumigated area must be protected (see directions under Warning Signal) to not remove warning sign until the fumigated area is completely aered and safe for entry, as indicated by a suitable detector.

**DETECTIVE EQUIPMENT:** Although this 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 for 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.

**AERATION AND REENTRY:** At the end of the exposure period, remove all seals and open all doors and windows that are operational. Allow for complete ventilation. Use ventilation fans whenever possible to remove fumigant from dead air pockets. After fumigation, treated areas must be aered until the level of methyl bromide is below 5 ppm. Do not allow entry into the treated area by any person before this time unless provided with loose clothing and a respiratory protection device (SCBA or destination air-supplied SCBA). Note: Certain materials absorb methyl bromide during fumigation and desorption during aeration may call for extended monitoring and aeration periods.

**FLAME LAMP DETECTOR, BENDER GAS-TIGHT DETECTOR, (Hand Pump and Detector Tube) Methyl bromide may be detected at the Threshold Limit Value (TLV) of 5 ppm. Detectors are available from Soil Chemicals Corporation.**

**FLAME LAMP DETECTOR:** Color of the flame is an index of the concentration of methyl bromide present. The following tabulated information provides an index of flame color and concentration of methyl bromide present:

METHYL BROMIDE (ppm)	Lb/1000 CU FT.	FLAME COLOR (DAYLIGHT*)
0	0	None
25	0.0025	None
50	0.0125	Moderate Green
125	0.031	Green
250	0.062	Strong Green
500	0.125	Strong blue-green. Fringe
800	0.20	Strong blue-green
1000	0.25	Blue

\* If flame color is identical, but all-vance must be made for the distance east of the flame front.

Note: Halide lamp detector is suitable for locating leaks and for determining extent of aeration. For approximately 50 ppm, it is not suitable for clearing a structure for reentry.

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 UNDER THE FEDERAL INSECTICIDE ACT  
 FEDERAL AGRICULTURAL MECHANICAL  
 ADMINISTRATION



**WARRANTY**

NOTICE: Seller warrants that the product conforms to its critical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. 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.

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**INHALATION HAZARD**

NA 1581  
METHYL BROMIDE  
AND MORE THAN  
2% CHLOROPICRIN  
MIXTURE, LIQUID