

PM 32 11220-16

1085

**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 IMMEDI-
ATELY. EARLY SYMPTOMS OF CHLOROPICRIN OVEREXPOSURE ARE
IRRITATION, 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 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 U.S. Physician).

RESPIRATORY PROTECTION:

If the concentration of methyl bromide in the working area as measured by a direct-reading detector device (such as a Draeger gas detector) does not exceed 5 ppm (20 mg/cu ft), 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. Silver Furnisher or comparable device). Under normal soil fumigation conditions, the concentration of methyl bromide in the working area will not generally exceed 5 ppm on 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 spill or leak.

CLOTHING PRECAUTIONS:

1. Wear loose clothing and shoes 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 inside clothing and cause asphyxiation. If full-face respiratory protection is not required, wear goggles or face face shield for eye protection when handling liquid.
2. Following application, immediately remove clothing, shoes, or socks. Do not reuse contaminated clothing or shoes until they are properly cleaned and decontaminated. Contaminated clothing must be properly 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 place or post at entrance to the fumigated area with signs bearing in English and Spanish:
 - (i) The signal word DANGER/Peligro and the hazard and precaution symbols.
 - (ii) The statement "Area under fumigation. DO NOT ENTER NO Entry".
 - (iii) The date of fumigation.
 - (iv) Name of fumigant used.
 - (v) Name, address, and telephone number of the applicator.
2. Do not remove a placard until the treated area 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. Placards must be placed 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. Move leaking or damaged cylinders of containers outdoors or to an unobstructed location observing strict safety precautions. Move 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 ft).
2. Contaminated soil, water, and other cleanup debris is a toxic hazardous waste. Report spill to the National Response Center (800-424-9302) if reportable quantity of 1000 lbs. is exceeded.

**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 (see Warning Statement).
2. When used for fumigation of enclosed spaces (houses and other structures, warehouses, vaults, chambers, greenhouses, trucks, vans, buses, ships, and other transport vehicles and car-pooling areas), two persons trained in the use of this product must be present during introduction of the fumigant, installation of equipment, and after aeration (testing for recovery). Two persons do not need to be present if fumigating 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 car being fumigated. Make sure the fumigated area is properly sealed and posted. Do not have anyone, animals, or cars during fumigation. They must be completely averted before aeration 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 ft).
2. Do not allow entry into the treated area of any person before this time unless wearing clothing and a respiratory protection device (SCBA or combination air-supplied/SCBA) is worn.

**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.

TRI-BROM
(Methyl Bromide)
FUMIGANT

COMPOSITION

ACTIVE INGREDIENTS:

METHYL BROMIDE 99.00%

INERT INGREDIENTS:

CHLOROPICRIN, ODORIZING AGENT 1.00%

TOTAL 100.00%

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 completamente.

**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.

TRICAL

P.O. BOX 1327 • MOLLISIER, CA 95624

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

E.P.A. REG. NO. 11220-16

NET CONTENTS LBS.

PRECAUTIONS FOR 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 operators of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the tractor and how to safely use 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 "contaminated 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 uncomfortable concentrations of chloropicrin may drift to nearby areas. Immediately cover treated areas with plastic tarpaulins for a minimum of 48 hours when the inversion depth is less than 10'.
2. Do not lift tarpaulins 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 end 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 vapors could reach the possible 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 tarpaulins are used, two trained persons must be present during removal of the tarpaulins.

SPILL AND LEAK PROCEDURE:

1. In case of a rupture of hose or fitting while applying fumigant, immediately stop tractor and motor, turn off immediate area of spill or leak, use ACES 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, fertilizer as indicated by soil tests should be applied after fumigation. To avoid ammonia injury and/or nitrate stimulation to crops, avoid using fertilizers containing ammonium salts and use only fertilizers containing nitrate until after the crop is well established and the soil temperature is above 45 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, lugs, 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, clean 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:

TRICAL	TRICAL
ATTN: Raymond J.	1028 Railroad Street
Modesto, CA 95023	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 TRICAL for return instructions.

SHIPPING:

This fumigant is classified in the U.S. Department of Transportation Hazardous Materials Regulations as methyl bromide liquid or methyl bromide and nonflammable non-liquefied compressed gas mixture liquid class "B" poison (inhalation hazard) and no exceptions from specification packaging, marking, or labeling are allowed. Package empty cylinders as having last contained methyl bromide liquid or methyl bromide and nonflammable non-liquefied compressed gas mixture, liquid (inhalation hazard). Do not ship with foods or clothing.

DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticides spray mixture or residue 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 EPA permit. Do not discharge effluent containing this product to sewer systems without previously notifying the appropriate 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 operation periods to establish that dangerous levels of the fumigant are not present (see Variation 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 need to aerate using areas with constant monitoring.

CHEMICAL HAZARD

Methyl bromide is practically nonflammable. There is no danger from fire or explosion in use concentrations. However, flame can cause the chemical to produce some corrosive damage to steel 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. Ferrous, or iron, indurated salt; (b) Full-fat soybean oil; (c) Any kind of materials that contain reactive sulfur compounds such as some soap powders, some baking sodas, and some salt blocks used for cattle linens.
2. Certain rubber goods: (a) Spongy rubber; (b) Foam rubber, as in rug padding, pillows, cushions, and mattresses; (c) Rubber stamps and other similar forms of reclaimed rubber.
3. Fur, hair, 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 Angora wools, and some adverse effect has been noted on the fumigation of woolen suits, coats, blankets, hand-knit woolen socks, sweaters, shawls, and woolen yarn).
6. Viscose rayon (these rayon processed or manufactured by a process in which carbon disulfide is used).
7. Paper: (a) Silver-plating papers; (b) Certain writing papers cured by sulphide processes; (c) Carbonless paper or silver prints.
8. Photographic chemicals as used in photo processing darkrooms (does not include camera film).
9. Cinder blocks, or sized concrete which occasionally picks up odor.
10. Any materials that may contain reactive sulfur compounds. THESE PRODUCTS MAY REDUCE 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.

SOIL FUMIGATION

DIRECTIONS:

Prior to planting, apply TRI-BROM at a rate of 250 to 400 lbs per acre. Apply TRI-BROM by means of chisels spaced 12" apart and at a depth of 2" to 4" below soil surface. To soil fumigate after application, cover with a gas-tight tarpaulin. Remove tarpaulin after 48 to 72 hours. Allow soil to aerate for one week before planting. For control of soil borne pests such as wireworms, nematodes, weevils and grubs, and diseases caused by certain species of *Phytophthora*, *Phytophthora*, and *Fusarium*, the soil prior to application should be in condition for planting and with sufficient moisture to support seed germination.

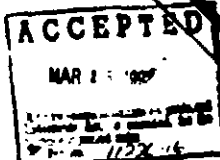
For control of *Armillaria* rot, the soil should be ripped to not less than 12 inches and the subsoil should be as dry as possible. Excess water will block deep penetration of the methyl bromide. Inject the methyl bromide at a depth of not less than 20 inches at a dosage of not less than 400 lbs per acre. Rows of chisels spaced not more than 5 feet apart. The area fumigated must be covered with a gas-tight tarpaulin using the continuous tarping method and left in place for not less than 7 days. Soil and roots very high in organic content should not be fumigated for *Armillaria* with methyl bromide. High organic contents prevent deep penetration of methyl bromide. Clay soils and soils that drain poorly must be dried out by planting Sudan grass and withholding water from it during the summer. This will increase penetration of methyl bromide.

DOSAGE TABLE

Land To Be Planted To	Lbs. Per Acre
Floral & Nursery Crops	200-400
Fruit & Nut Trees	250-600
Grapes	250-600
Seed Beds*	300-400
Strawberries	250
Tomatoes	250

* For production of replants

SPECIMEN



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 is implied or 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.

FUMIGATION FOR DEEP LIVED NEMATODES WITHOUT TARPING

After the planting apply 121-BRON at a rate of not more than 600 lbs. per acre for control of deep lived nematodes such as Dagger, Root-Knot, Root and Ring-neck, etc. The soil should be tilled to a depth of 12 inches and the surface should be as dry as possible. Excess moisture will block deep penetration of the fumigant. Apply the Methyl Bromide at a depth of not less than 12 inches at a dosage of not more than 600 lbs. per acre from chisels spaced not more than 5 1/2 ft. apart.

Do not apply to soil where trees or vines will bear harvestable fruit within 12 months. A waiting period of at least 14 days should be observed between application and planting.

Immediately following application, close the chisel furrows by discing to soil and then compacting the soil with a "ring type" roller with rings having an outside diameter of not less than 14 inches. The roller must have a weight of not less than 110 lbs. per linear foot. The diameter of the roller should extend not less than 2.75 feet beyond each side of the chisel work.

Fast soils and soils very high in organic content should not be treated for deep lived nematodes with Methyl Bromide. High organic content prevents deep penetration of Methyl Bromide.

Clay soils and soils that drain poorly must be dried out by planting dry grass and withholding water from it during the summer. This will decrease penetration of Methyl Bromide. The soil should then be left undisturbed for 7 days prior to working and not planted until 14 days after application.

SPACE FUMIGATION

DIRECTIONS:

Fumigation must be carried out in gas-tight chambers or under gas-tight tarpaulins for control of common storage insects such as dried fruit, grain, wool, etc. For methods and structural points, see the label. The dosage is 1 to 1 1/2 pounds of Methyl Bromide per 1,000 cubic feet with exposure of 12 to 24 hours at atmospheric pressure or 2 to 3 lbs. per 1,000 to 1 hour under vacuum.

Do not fumigate when temperature is below 45 degrees F. Certain items require fumigation at times when they are sealed by certain regulations. In such cases, follow quarantine regulations and fumigate only non-food items when used for structural fumigation. Fumigation of materials containing sulfur compounds, such as certain types of rubber, may require special precautions which are difficult to remove (see Chemical Hazard Statement). All heat sources in the structure being fumigated must be extinguished.

Only with all local ordinances pertaining to fumigation and follow current quarantine regulations.

After fumigation, ventilate thoroughly until Methyl Bromide has been removed before entering (see Hazard Statement).

VENTILATION AND REENTRY:

At the end of the exposure period, remove all seals and open all doors and windows that are operable. Allow for complete ventilation. In ventilation, use whatever possible to remove fumigant from dead air spaces. After fumigation, treated areas must be aerated 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 proper clothing and a respiratory protection device (SCBA). Ventilation air should be fresh.

Certain materials absorb Methyl Bromide. Fumigation and absorption during aeration may call for extended venting and aeration periods.

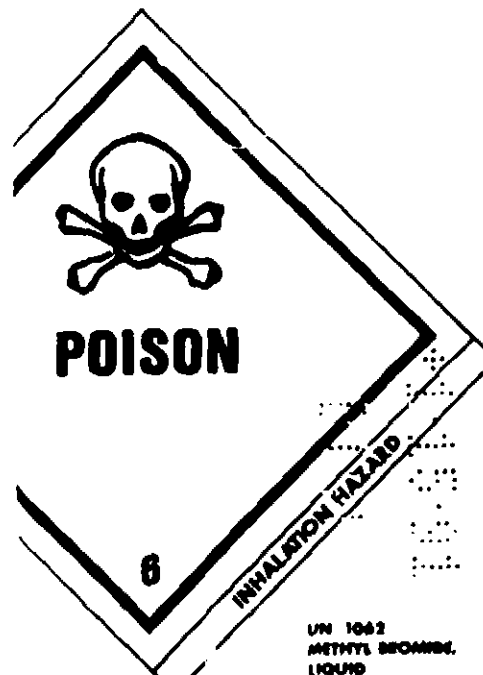
Always use detector. Methyl Bromide Detector (Hand Pump and Detector) is available. Methyl Bromide may be detected at the threshold limit value (TLV) of 5 ppm. Detectors are available from your distributor or dealer.

Color change system. Color of the glass is an index of the percentage of Methyl Bromide present. The following fumigation information gives an index of 1,000 ppm and concentration of Methyl Bromide present.

Methyl Bromide ppm	0.500 to 1.000	PLANE COLOR (DAYLIGHT)
0	0.0000	None
10	0.0025	None
20	0.0125	Light Green
30	0.0250	Green
40	0.0400	Strong Green
50	0.0500	Strong Blue-Green (Fringe)
60	0.0600	Strong Blue-Green
70	0.0700	Blue

* Daylight color is identical, but allowance must be made for the thickness of the glass used.

Methyl Bromide detector is suitable for locating leaks and for measuring the amount of Methyl Bromide in the atmosphere. It is also suitable for measuring a structure for reentry.



UN 1062
METHYL BROMIDE,
LIQUID