

**RESTRICTED USE PESTICIDE  
DUE TO ACUTE TOXICITY**

For Restricted Use only. See label for Corrected Application of persons authorized for direct supervision and a description of the uses covered by the Restricted Application certification.

**BRO/SOL-30  
SOIL FUMIGANT**

For control of weeds, nematodes and insect pests in plant beds, seed beds and certain field crops

<b>ACTIVE INGREDIENT:</b>	<b>By Wt.</b>
METHYL BROMIDE	68.4%
<b>INERT INGREDIENTS:</b>	30.6%
<i>Contains</i> CHLOROPICRIN (warning odorant tear gas)	
<b>TOTAL</b>	<b>100%</b>

**ACUTELY TOXIC CHEMICAL**  
12.1 LBS A/gal. (LIQUID IN CYLINDER)

**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 ampliamente.

**STATEMENT OF PRACTICAL TREATMENT**

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

**If inhaled** -- Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped apply artificial respiration. Do not give anything by mouth to an unconscious person.

**If on skin** -- Immediately remove contaminated clothing, shoes, jewelry, and any other item on 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.

See side panels for additional precautionary statements.

EPA REG. NO. 8622-9

EPA EST. NO. 10163-AZ-01  
 EPA EST. NO. 15298-IS-01  
 EPA EST. NO. 29516-FL-04  
 EPA EST. NO. 29516-NC-01

Distributed by:  
**AMERIBROM, INC.**  
1250 BROADWAY  
NEW YORK, N.Y.  
10001

**IN CASE OF EMERGENCY CONTACT:**

Chemtrec (800) 424-9390  
or  
Ameribrom West  
5417 Santa Clara Ave.  
Camarillo, Calif. 93010  
Call Collect: (805) 988-9717 (Calif.)  
(212) 563-4600 (N.Y.)

Net contents: \_\_\_\_\_ LBS / \_\_\_\_\_ KGS 11 27

**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

PM 32 REG # 8622-9

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

**DANGER  
HIGH ACUTE TOXICITY**

Extremely hazardous liquid and vapor under pressure. Do not breathe vapor. Inhalation 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 as a warning odorant. Chloropicrin may be irritating to the upper respiratory tract, and even at low levels can cause painful irritation to the eyes, producing tearing. If these symptoms occur, leave the fumigation area immediately.

**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.

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

**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.

**DIRECTIONS FOR USE**

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

**PROTECTIVE CLOTHING:** Wear loose cotton long sleeve shirt and pants, shoes and socks that are cleaned after each wearing. Do not wear jewelry, gloves or boots when handling. Methyl bromide is heavier than air and may be trapped inside clothing and cause skin injury. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid. After application, immediately remove clothing, shoes and socks. Do not reuse contaminated clothing or shoes until cleaned. Drenched clothing cannot be adequately decontaminated.

**PESTICIDE STORAGE, HANDLING AND DISPOSAL**

**PESTICIDE 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. 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, lings, 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 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:** 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.

#### **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 precaution and directions, including those in the Product Manual No. AM-210, "Manual for the Safe Handling and Application of Methyl Bromide Products."*

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 (see the Product Manual No. AM-210).

#### **PRECAUTIONS FOR USAGE**

*When used for fumigation of soil in enclosed spaces (e.g. greenhouses and tarpaulin covered areas) two persons trained in the use of the product must be present during introduction of the fumigant, initiation of aeration, and after aeration when testing for reentry. Two persons do not need to be present if monitoring is conducted remotely (outside the area being fumigated).*

Do not fumigate with this product when soil temperature is below approx. 50°F at 6-8 in. Specific directions for use in greenhouses are fully given in the Product Manual No. AM-210.

**Placarding or Posting Required:** (Check with local authorities in your state concerning the need to post fumigated areas) The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol
2. The statement, "Area under fumigation. DO NOT ENTER/NO ENTRE"
3. The date of fumigation
4. Name of fumigant used
5. Name, address, and telephone number of the applicator

Only a certified applicator or someone under his/her supervision may remove placards, and only when the concentration of methyl bromide in the treated site is below 5 ppm.

**Respiratory Protection:** If the concentration of methyl bromide in the working area, as measured by a direct-reading detector device (e.g., Draeger Tube as described in the product manual), 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 working area must wear protective clothing and a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator (see the product manual).

**Aeration and Reentry:** 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 protective clothing and a respiratory protection device (SCBA or combination air-supplied/SCBA) is worn.

**Spill and Leak Procedures:** Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders or containers outdoors or to an isolated location, observing strict safety precautions. Work upward if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of methyl bromide is determined to be less than 5 ppm.

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

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

Specific instructions for application appears in the Product Manual No. AM-210.

**Prior to Fumigation:** 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 "up wind" 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.

**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 or 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.

**After fumigation:** Post all treated areas with warning signs.

Keep all animals, children and unauthorized people away from area under fumigation for 48 hours after fumigation and during removal of tarpaulin.

Two trained persons must be present during removal of the tarpaulin.

**Spill and Leak Procedures:** In case of a rupture of hose or fitting while applying fumigant, immediately stop tractor and motor. Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem and to make necessary repairs. Do not reenter area without respiratory protection until repairs have been fixed.

### FUMIGATION DIRECTIONS

Use BRO/SOL-30 soil fumigant for preplanting application in soil for control of nematodes, insects, and weeds in nurseries and in certain seed bed, plant bed and field crop areas. Typical pests controlled are: nematodes such as root-knot, lesion, dagger, stunt, spiral cyst formers, lance sting, pin and certain other species, insects such as wireworms and white grubs in the soil at time of treatment, and weeds such as chickweed, pigweed, nutgrass, crabgrass, goosegrass, crowfoot-grass, barnyardgrass, purslane, morning glory and many other broadleaf and grass weeds. BRO/SOL-30 will give excellent performance in forest tree, ornamental shrub and turf nurseries; in annual and perennial flower, tomato, tobacco, and strawberry plant beds; in vegetable seed beds for production of transplants only; and in soil where strawberries and tomatoes are to be grown for food.

### RECOMMENDED APPLICATION RATES

USE	Lbs./Acre
Seed and Plant beds Tomato, tobacco, forest trees, vegetable (For the production of transplants only)	500-1000
Soil treatment for Strawberries and Tomatoes	350
Soils for non-food use (Turf, floral crops, ornamental nurseries, etc.)	250-500

Application: Use BRO/SOL-30 at the rate of 250 to 500 pounds per acre. Apply by means of chisels spaced not more than 12 inches apart set at a depth of 4 to 6 inches. Use at the higher rate in heavy soils, soils with high organic content, or when soil temperatures are low. Cover with polyethylene or other gas-tight sheeting as soon as possible after chisel application.

#### EXPOSURE PERIOD AFTER APPLICATION

For soil temperature above 60°F leave the treated soil covered for at least 43 hours to insure maximum fumigant diffusion. For soil temperatures below 60°F extend the exposure period to 3 to 4 days for best results. In all instances best results are obtained from fall applications where the covers are left on all winter.

#### WHEN TO PLANT AFTER THE EXPOSURE PERIOD

Crops can usually be seeded 2 or 3 days after the cover is removed. For transplants aerate the soil 7 to 10 days prior to planting. NOTE: To avoid the possibility of exceeding bromide tolerances allow an aeration period of at least 2 weeks when transplants of strawberries and tomatoes for crop production are set in fumigated fields. If rains or soil temperatures below 60°F occur during aeration, delay seeding or planting until the soil is returned to a tillable condition with suitable moisture and temperature for good plant growth. PRECAUTIONS: Under some conditions, growth difficulty has been experienced on carnations, holly, snapdragons, multiflora roses, and certain other plants. If there is a question, use on a small spot to determine safety. To prevent injury to desirable living plants, keep edge of cover at least 18 inches from drip line. Do not apply to areas containing living roots of these plants. Fumigated areas may be protected against recontamination by wooden frames or trenches to prevent flooding or washing. Recontamination by footwear or equipment should be kept to a minimum.

#### NOTICE

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 BRO/PIC-30 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 either 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.

METHYL BROMIDE AND  
NONFLAMMABLE,  
NONLIQUIFIED  
COMPRESSED  
GAS MIXTURE,  
LIQUID  
NA1955



**POISON**

INHALATION HAZARD

6

F  
a  
C  
o  
s  
o  
d  
  
D  
s  
P  
a  
i  
n  
H  
e  
  
C  
l  
e  
g  
s  
h  
p  
u  
  
R  
E  
(1)  
b  
(2)  
(3)  
t  
h  
(4)  
  
T  
r  
i  
n  
t  
h  
o  
f  
  
A  
ll  
i  
n  
a  
n

W  
C  
M  
R  
O  
D  
S

**ACCEPTED**  
**8622-9**  
**16 SEP 1988**

UNDER THE FEDERAL STATUTE OF  
LIBRARY AND DOCUMENTATION ACT  
FOR THE FEDERAL GOVERNMENT  
EDITION 1988  
10 ATTA. 100.00000001

