

ACCEPTED
 MAR 15 1983
 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 5785-47

**METHYL BROMIDE
 AND MORE THAN
 2% CHLOROPICRIN
 MIXTURE, LIQUID**

NOTICE

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

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 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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PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS
AND DOMESTIC ANIMALS**

DANGER

Poisonous if inhaled. Do not breathe vapors. May burn skin and eyes. Do not get in eyes, on skin, or on clothing.

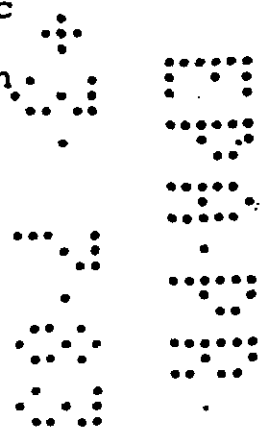
Vapors of Terr-O-Gas 80 may be extremely irritating to the eyes. When applying or transferring to other containers, provide good ventilation. In the presence of discomforting concentrations of Terr-O-Gas 80 vapors, wear a full-faced gas mask with a NIOSH or MSHA approved black canister for organic vapors.

Applications near structures occupied by humans and animals should be made in accordance with local regulations.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Keep out of lakes, ponds and streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

Following soil fumigation, undesirable concentrations of chloropicrin may drift to nearby areas. If this occurs, immediately recover 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 Terr-O-Gas 80 when there is little or no air movement or there is an inversion condition in the atmosphere. Do not allow Terr-O-Gas 80 vapors to come into contact with any desirable living plant.



PHYSICAL OR CHEMICAL HAZARDS

Contents under pressure. Do not use or store near heat or open flame. In fires fueled by other materials, Terr-O-Gas 80 may liberate hazardous gases. The use of Terr-O-Gas 80 with aluminum, magnesium, and alkali metals will result in the liberation of toxic gases.

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DIRECTIONS FOR USE

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

STORAGE, SHIPMENT AND DISPOSAL

Storage: Store in a cool place away from dwellings. Do not allow contamination of seeds, plants, fertilizers or other pesticides. Do not contaminate food, feed stuffs, drugs or domestic water supplies. Do not remove bonnets or safety caps until just prior to use.

Shipment: Do not ship with food, feeds, drugs or clothing.

Disposal: Close valve by turning clockwise until hand tight. Disconnect lines. Replace safety caps and bonnet. Return empty cylinders freight collect to the Great Lakes Chemical Corporation location from which shipment was made. Return partial cylinders only after consulting Great Lakes Chemical Corporation for proper shipping instructions.

SOIL PREPARATION

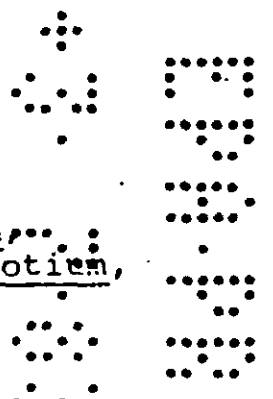
Soil to be treated with Terr-O-Gas® 80 should be in seedbed condition, free of clods and undecomposed organic material. Soil moisture should be in the range of 25-75% of field capacity depending on the soil type. Coarse textured soils can be fumigated with higher moisture content than fine textured soils. Soil temperature at the injection depth (6-8") should be between 50°F. and 80°F. Do not fumigate soils that are too cold or too wet.

Pests controlled are: nematodes, including Meloidogyne, Tylenchulus, Pratylenchus, Xiphinema, Criconemoides, and Paratylenchus species.

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

Weeds and weed seeds: seeds, roots, stolons, and bulbs of broadleaf weeds and grasses including quackgrass, annual bluegrass, broomrape, common lambsquarters, torpedograss and bermudagrass. For heavy infestations of weeds and diseases, use higher label rates. Not effective against mallow, dodder, and some species of clover.

Insects in the soil at the time of treatment including: wireworms, June beetle larvae, white grubs, and garden symphylan.



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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.

TERR-O-GAS® 80

Preplant Soil Fumigant

ACTIVE INGREDIENTS

Methyl Bromide.	80.0%
Chloropicrin.	20.0%
Total	100.0%

DANGER

KEEP OUT OF REACH OF CHILDREN

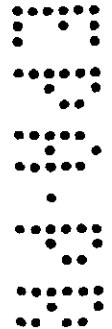
POISON

Statement of Practical Treatment

- If Inhaled
1. Remove victim to fresh air immediately.
 2. Keep victim lying down and warm.
 3. Give artificial respiration if breathing has stopped.
 4. Call a physician at once.

- Skin Contact
1. Remove all contaminated clothing and shoes at once. Clean or launder contaminated clothing before reuse. Be sure all chemical odors are gone from contaminated articles before reuse.
 2. Wash exposed areas thoroughly with soap and water.
 3. If a rash or blisters develop, get medical attention.

- Eye Contact
1. Flush thoroughly with running water for at least 15 minutes.
 2. Get medical attention promptly.



NET WT. _____

EPA REG. NO. 5785-47-AA

LOT NO. _____

EPA EST. NO. 5735-AR-01

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

**GREAT LAKES
CHEMICAL CORPORATION
West Lafayette, Indiana 47906**

Application Method

Apply with chisels spaced 12" apart to a depth of 6-8". Seal immediately with polyethylene or other gas confining cover by means of an automatic tarp layer or seal with a drag or culti-packer immediately behind chisels and cover with a gas confining cover as soon as possible, preferably within 20 minutes. 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.

Exposure and Aeration

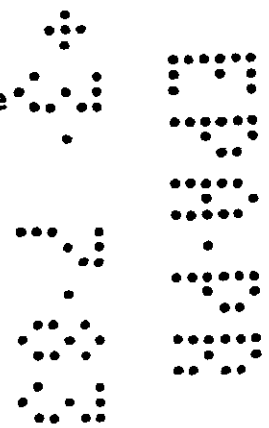
Expose to fumigation for 24-48 hours. Aerate 2 weeks before setting transplants in treated areas. Tomato seeds may be planted 96 hours after exposure period. If odor of fumigant persists at the end of the aeration period, disc or plow the soil to assist aeration.

NOTE: Fumigation may temporarily reduce nitrification in the soil thus increasing levels of ammonium nitrogen and soluble ammonium salt to potentially phytotoxic levels. Accumulation of ammonium is most likely to occur when maximum rates of fumigant and fertilizer are applied to soils that are acidic, wet, cold, or high in organic matter. Apply only fertilizer containing at least 30% nitrate until the crop is well established and soil temperature is above 65°F. then fertilize as indicated by soil test. To stimulate nitrification and to reduce possible ammonium toxicity, acid soils should be limed before fumigation.

Dosage Rates

Recommended application rates for soils to be planted to the following crops:

Strawberries, tomatoes, eggplant, muskmelon, broccoli, cauliflower, and peppers	185-300 lbs/A
Floral crops, ornamental nursery, and field grown ornamentals	250-375 lbs/A
Seedbeds (for production of transplants only)	250-375 lbs/A
Lettuce ¹	250-375 lbs/A 375-500 lbs/A
Asparagus ²	375-500 lbs/A
Onions (direct seeded, dry bulbs) ³	375-500 lbs/A



¹For use in California only. To control Big Vein apply 250-375 pounds per acre and to control nematodes and weeds use 375-500 pounds per acre. Do not use more than once in 2 to 3 years.

²For use in California only. Do not harvest asparagus during year of treatment.

³For use in areas West of the Rocky Mountains only. Do not treat any field more than once every 12 months.

Citrus Soil For Control of Phytophthora in Florida Sandy Soils. This is a preplant or replant treatment. Trees which are planted in this treated soil will not bear harvestable fruit for a period of at least 24 months. Use a minimum of 1-1½ pounds per 100 square feet. Expose to fumigation for 96 hours covering treated area with a 4 mil tarpaulin. Will control disease to a depth of 4 feet. Aerate 2 weeks before setting transplants in treated area.

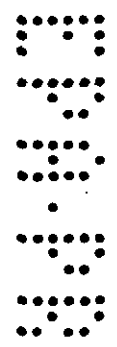
Greenhouse Fumigation. Terr-O-Gas 80 may be used in field or in greenhouse. When used in greenhouse, the following safety precautions must be strictly observed.

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 proper operation.

If a wind is blowing, all injection 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.

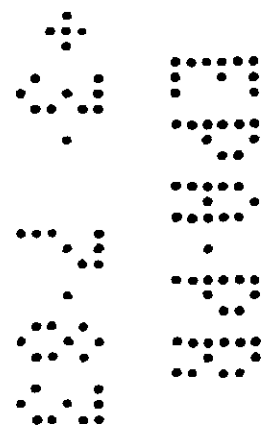
During this operation, all windows and doors should be open and fans operating to maximize ventilation. The fumigated area must be placarded on all entrances with signs containing at least the signal word DANGER and the "Skull and Crossbones" and the words, "Area under fumigation, do not enter until 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.



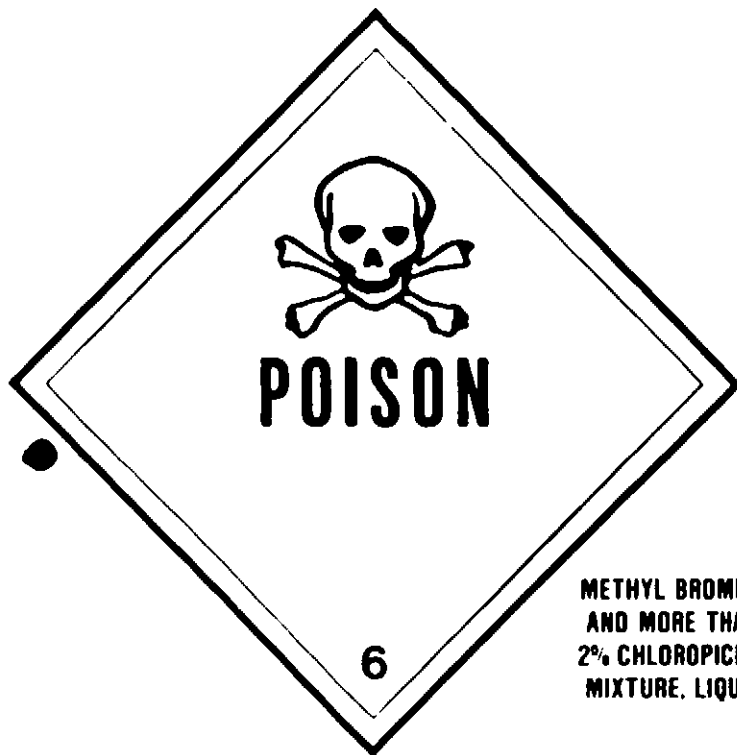
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Although Terr-O-Gas 80 contains chloropicrin, the absence of chloropicrin does not always indicate the absence of methyl bromide. Under no circumstances shall any person be allowed to enter the fumigated structure without the appropriate protective equipment from the time of injection of the fumigant until acceptable readings are obtained using the approved detector. Persons not wearing protective equipment should not enter the fumigated area until monitoring devices show methyl bromide concentrations of 15 ppm or less.

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; and 4) MSHA/NIOSH approved detection device.



Reg no: 5785-47



**METHYL BROMIDE
AND MORE THAN
2% CHLOROPICRIN
MIXTURE, LIQUID**

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

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 any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of the 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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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.

TERR-O-GAS® 80

PREPLANT SOIL FUMIGANT

ACTIVE INGREDIENTS:

	By Wt.
Methyl Bromide	80.0%
Chloropicrin	20.0%
Total	100.0%

NOT RECOMMENDED FOR USE ON FOOD CROPS
To 152-444
3/15/83
Label No. 83-3
Date 3/15/83

DANGER

**KEEP OUT OF REACH OF CHILDREN
POISON**

Statement of Precautionary Statements

- IF INHALED: Move victim to fresh air immediately. Keep victim lying down and warm. Give artificial respiration if breathing has stopped. Call a physician at once.
- SKIN CONTACT: Remove all contaminated clothing and shoes at once. Clean or launder contaminated clothing before reuse. Be sure all chemical residues are gone from contaminated articles before reuse. Wash exposed areas thoroughly with soap and water. If a rash or blisters develop, get medical attention.
- EYE CONTACT: Flush thoroughly with running water for at least 15 minutes. Get medical attention promptly. SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.



Great Lakes Chemical Corporation

RESTRICTED USE PESTICIDE
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TERR-O-GAS® 80

PREPLANT SOIL FUMIGANT

ACTIVE INGREDIENTS	By Wt.
Methyl Bromide	80.0%
Chloropicrin	20.0%
TOTAL	100.0%

⚠ DANGER ⚠
KEEP OUT OF REACH OF CHILDREN
POISON

Statement of Practical Treatment:

- ACUTE:** Remove victim to fresh air immediately. • Keep victim lying down and warm. • Give artificial respiration if breathing has stopped. • Call a physician at once.
- SKIN CONTACT:** Remove all contaminated clothing and shoes at once. • Clean or launder contaminated clothing before reuse. • Wash all chemical vapors are gone from contaminated articles before reuse. • Wash exposed areas thoroughly with soap and water. • If a rash or blisters develop, get medical attention.
- EYE CONTACT:** Flush thoroughly with running water for at least 15 minutes. • Get medical attention promptly.

SEE REVERSE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS



Great Lakes
Chemical Corporation

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER
Poisonous if inhaled. Do not get in eyes, on skin, or on clothing. Vapors may burn eyes. Irritating to the eyes. When applying or transferring, provide good ventilation. Wear a full faced gas mask with a NIOSH or MSHA approved black canister for organic vapors. Applications near structures and animals should be made in accordance with local regulations.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and ponds and streams. Do not contaminate equipment or disposal of waste. Following soil fumigation, concentrations of chloropicrin may drift to nearby areas. If this occurs, immediately recover treated area. Leave tarpaulin on overnight and remove. Recover the area if eye irritation indicates that the undesirable concentration is continuing. These concentrations are most likely to occur when the air is most likely to be in motion. Do not make application of Terr-O-Gas 80 vapors in poor ventilation or no air movement or there is an inversion in the atmosphere. Do not allow Terr-O-Gas 80 vapors to come into contact with any living plant.

PHYSICAL OR CHEMICAL HAZARDS

Contents under pressure. Do not store near heat or open flame. In fires, fumes by the use of Terr-O-Gas 80 may liberate hazardous gases such as aluminum, magnesium, or alkali metals will result in the liberation of toxic fumes.

DIRECTIONS FOR USE

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

STORAGE, SHIPMENT AND DISPOSAL

STORAGE: Store in a cool, dry place away from dwellings, food, plants, fertilizers or other pesticides. Do not contaminate food, feed stuffs, drugs or chemicals. Do not remove eye safety caps until ready to use.

SHIPMENT: Do not ship with food, feeds, drugs or clothing.

DISPOSAL: Close valve, turn cylinder upside down and hand tight. Disconnect lines. Return empty cylinders to the Great Lakes Chemical Corporation from which shipment was made. For disposal of cylinders only after consulting Great Lakes Chemical Corporation for proper shipping instructions.

SOIL PREPARATION

Soil to be treated with Terr-O-Gas 80 should be in seedbed condition free of clods and decomposed organic material. Soil moisture should be in the range of 75-75% of field capacity depending on the soil type. Coarse textured soils can be fumigated with higher moisture content than fine textured soils. Soil temperature at maximum depth (6-8") should be between 50°F and 60°F. Do not fumigate soils that are too cold or too wet.

Pests controlled: nematodes including *Merodogone*, *Tylenchus*, *Pratylenchus*, *Rhynchus*, *Trichostrongylus*, and *Paratylenchus* species. Soil borne fungi including *Verticillium*, *Fusarium*, *Pythium*, *Rhizoctonia*, *Phytophthora*, *Pyrenochaeta*, *Sclerotinia*, *Sclerotium*, *A. mitaria* and the tuber rot organism *Plasmodiophora*.

Weeds and weed seeds, seeds, roots, stolons, tubers of broadleaf weeds and grasses including quackgrass, annual bluegrass, broomrape, common lambsquarters, torpedograss and bermudagrass. For heavy infestations of weeds and diseases, use higher rates. Not effective against mallow, dodder, and some species of clover. Insects in the soil at the time of treatment including wireworms, June beetle larvae, white grubs, and garden symphylan.

Application Method: Apply with chisels spaced 12" apart to a depth of 6". Seal immediately with polyethylene or other gas confining cover by means of an automatic tarp layer or seal with a drag or culti packer immediately behind chisels and cover with a gas confining cover as soon as possible, preferably within 20 minutes. How to be 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.

Exposure and Aeration: Expose to fumigation for 1-48 hours. Aerate 2 weeks before setting transplants in treated areas. Tomato seeds may be planted 96 hours after exposure period. If odor of fumigant persists at the end of the aeration period, disc or plow the soil to dissipate it.

NOTE: Fumigation may temporarily reduce nitrification in the soil thus increasing levels of ammonium nitrogen and soluble ammonium salt. In potentially phytotoxic soils, accumulation of ammonium is most likely to occur when maximum rates of fumigant and fertilizer are applied. Apply only fertilizer containing at least 50% moisture. The crop is well established and soil temperature is at least 65°F, then fertilize as indicated by soil test. To increase nitrification and to reduce possible ammonium toxicity, acid soils should be limed before fumigation.

Dosage Rate: Recommended application rates are to be applied to the following crops:

Crop	Rate (lb/acre)
Strawberries, tomatoes, eggplants, cucumbers, brussels sprouts, and peppers	10-15
Kernal corn, sweet corn, sorghum, and field corn	10-15
Seedling corn, sorghum, and soybeans	10-15
Transplants	10-15
Letts	10-15
Asparagus	10-15

Clon Soil For Control of Phytophthora in Florida Sandy Soil
This is a preplant or rotant treatment. Trees which planted in this treated soil will not bear harvestable fruit for a period of at least 24 months. Use a minimum of 1-pounds per 100 square feet. Expose to fumigation for 1-hour covering treated area with a 4 mil tarpaulin. Control disease to a depth of 4 feet. Aerate 2 weeks before setting transplants in treated area.

Greenhouse Fumigation: Terr-O-Gas 80 may be used in greenhouses. When used in greenhouse following safety precautions must be strictly observed. The use of tightly bromide confined spaces poses a potential hazard to humans and plant life. Special precautions must be made to consider these potential hazards be minimized. It is the responsibility of the individual supervising the fumigation operation to insure that all safety precautions are strictly observed.

Before the fumigation operation commences, the supervisor of the fumigation job should have conducted proper training of all personnel involved in the fumigation. Includes use of safety equipment, removal of all persons from the area not directly involved in the fumigation, and inspection of the equipment to insure proper operation. If a worker is being airborne, this should be made use from a previous inspection site immediately after effect of the fumigant and tarpaulin. A qualified person, wear protective equipment, should monitor the area with halide leak detector. If excessive leaks are found, the source of the leak should be sealed immediately.

During this operation, all windows and doors should open and fans operating to maximize ventilation. Fumigation should not be planned for an entrance or signs visible at least the sign word "DANGER" a sign should be placed in the area. Area unit fumigation should be completed. Fumigant used, emergency telephone contact, and the name and address of the fumigator should be written on signs until fumigation area is completely airtight and safe for entry as indicated by a suitable detector. Exposure time should be 24-48 hours.

Although Terr-O-Gas 80 is highly toxic, the absence of the odor of the fumigant does not mean the absence of the fumigant. The odor of the fumigant may be absent for several days after the fumigation without appropriate precautions. The time interval between the last fumigation and the readings should be at least 24 hours. Persons wearing a respirator should not enter the fumigated area until the odor of the fumigant is completely absent.

Persons wearing appropriate safety gear should not be allowed to enter the fumigation area until the odor of the fumigant is completely absent. Persons wearing appropriate safety gear should not be allowed to enter the fumigation area until the odor of the fumigant is completely absent. Persons wearing appropriate safety gear should not be allowed to enter the fumigation area until the odor of the fumigant is completely absent.

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EPA EST NO 6786-CA

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