**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER.** EXTREMELY HAZARDOUS LIQUID AND VAPOR UNDER PRESSURE. FATAL IF SWALLOWED OR INHALED. CORROSIVE. CAUSES SKIN BURNS AND EYE DAMAGE. MAY CAUSE SERIOUS OR PERSISTENT INJURY TO THE SKIN AND EYES. DO NOT BREATHE VAPOR OR GAS. INHALATION MAY CAUSE SERIOUS ACUTE ILLNESS OR DELAYED LUNG, NERVE, OR BRAIN INJURY. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING.

**NOTE:** CHLOROPICRIN MAY BE IRITATING 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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. For more options, follow the instructions for Category H on the chemical-resistance category selection chart. PPE constructed of Saranex, neoprene, and chlorinated polyethylene should be effective Against contact or splash protection against liquid in this product. Longer-term protection is provided by PPE constructed of Viton, Teflon, and EVAL barrier laminates (for example, responder suits manufactured by Life-Guard or Silvershield gloves manufactured by DuraHealth). Where chemical-resistant materials are required, leather, canvas, or cotton materials offer no protection from this product and must not be worn as the sole article of protection when contact with this product is possible.

When performing tasks with NO potential for contact with liquid fumigant, all handlers (including applicators) must wear:

- Wear long-sleeved shirt, long pants, shoes and socks.
- Not wear jewelry, goggles, tight clothing, chemical-resistant gloves, rubber protective clothing, or rubber boots when handling. Methyl bromide can be trapped inside clothing and cause skin injury.

Handlers with no potential for contact with liquid fumigant (e.g. shovelers) may wear cotton, leather, or other porous, non-chemical-resistant gloves. If such gloves are exposed to liquid fumigant, they must immediately be removed and discarded.

When performing tasks with potential for contact with liquid fumigant, all handlers (including applicators) must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves.
- Chemical-resistant apron.
- Protective eyewear (Do NOT wear goggles), and
- Chemical-resistant footware with socks.

In addition, when an air-purifying respirator is required under this label's Directions for Use, Protection for Handlers, Respiratory Protection and Stop Work Triggers section, handlers (including applicators) must wear:

- A NIOSH-certified full-facepiece air-purifying respirator with cartridges certified by the manufacturer for protection from exposure to methyl bromide at concentrations up to 5 ppm (e.g., a 3M air-purifying respirator equipped with a 3M Model 60928 Organic Vapor/Acid Gas/P100 cartridges).

**IMPORTANT:** A self-contained breathing apparatus (SCBA) is not permitted for routine handler tasks. If responding to an emergency when corrective action is needed to reduce exposure concentrations to acceptable levels only, SCBA. Escape-only SCBA respirators must not be used by handlers for responding to emergencies. In addition wear PPE required for potential contact with liquid fumigant.

**RESTRICTED USE PESTICIDE**

**DUE TO ACUTE TOXICITY**

For retail sale to and use by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator’s certification.

**MBC-33 Pre-Plant Soil Fumigant**

**ACTIVE INGREDIENTS:**

- Methyl Bromide ................................................................. 67.0%
- Chloropicrin ........................................................................ 32.8%
- Others .................................................................................. 0.2%

**TOTAL: .......................................................................................... 100.0%**

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**POISON**

**PELIGRO**

**SI Usted no entiende la etiqueta, busque a alguien para que le explique lo que Usted quiere en detalle.**

**IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY. TAKE PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY.**

**FIRST AID**

**IF INHALED:**

- • Move person to fresh air.
- • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth-to-mouth, if possible.
- • Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:**

- • Call a poison control center or doctor immediately for treatment advice.
- • Have person sip a glass of water if able to swallow.
- • Do not induce vomiting unless told to do so by a poison control center or doctor.
- • Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:**

- • Take off contaminated clothing.
- • Rinse skin immediately with plenty of water for 15-20 minutes.
- • Call a poison control center or doctor for treatment advice.

**IF IN EYES:**

- • Hold eyes open and rinse slowly and gently with water for 15-20 minutes.
- • Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.
- • Call a poison control center or doctor for treatment advice.

Note: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**EMERGENCY PHONE NUMBER:** Chemtrec 1-800-424-9300

**NOTE TO PHYSICIAN**

Early symptoms of overexposure to methyl bromide 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 are the usual cause of death. Repeated overexposures 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.

**DIRECTIONS FOR USE Restricted Use Pesticide**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Applicators may be in the application block from the start of the application until the end restricted period ends, and in the buffer zone during the buffer zone period. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. Refer to label booklet under “Agricultural Use Requirements” in the Directions for Use section for information about this standard.

**Storage and Disposal**

**DO NOT CONTAMINATE WATER, FOOD, OR FEED.**

**RESTRICTED USE PESTICIDE**

**POISON**

**PELIGRO**

**CONTAINER DISPOSAL:**

- Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.
- Container Disposal: Store containers upright, secured to a rack or wall to prevent tipping.
- Container Labeling: 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 Agency representative of the nearest EPA Regional Office for guidance. When a cylinder is partially full, and there is no further requirement for the product, return the cylinder to the registrant or distributor. Replace safety cap and valve protection bonnet before shipping container.

**Refillable Container:**

- Only the registrant or distributor is allowed to refill this container.
- This container can be refilled with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

**Container Disposal:**

- Clean the container before final disposal, remove any remaining liquid from the container, using the air pressure if necessary. Allow container to aerate for at least 5 days. After aeration, wash the container using hot water; then offer container to qualified reconditioner or dispose of as directed by State or local regulations.

See label booklet for complete Directions for Use.

**DISTRICTED BY**

Trical, Inc.
8770 Highway 25
P. O. Box 1327
Hollister, CA 95042-1327

**EPA Reg. No. 87994-2-11220**

**EPA Est. 11220-CA-4**

**Date of Labeling: December 11, 2014**
Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. When a cylinder is partially full, and there is no further requirement for the product, return the cylinder to the registrant or distributor. Replace safety cap and valve protection bonnet before shipping container.

Container Handling: Store cylinders upright, secured to a rack or wall to prevent tipping. Do not subject cylinders to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured. Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Return of Containers: Cylinders are the property of the registrant or distributor and must be in accordance with requirements set forth in these regulations. 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.

Refillable Container: Only the registrant or distributor is allowed to refill this container. This container can be refilled with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Container Disposal: To clean the container before final disposal, remove any remaining liquid from the container, using dry air pressure if necessary. Allow container to aerate for at least 5 days. After aeration, wash container using hot water; then offer container to qualified reconditioner or dispose of as directed by State or local regulations.

WARRANTY

Seller warrants that this product conforms to the chemical description on its label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. To the extent consistent with applicable law, 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 in a manner contrary to its label.

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Distributed By:

Trical, Inc.
P. O. Box 1327 • Hollister, CA 95024-1327

EPA Reg. No. 87994-2-11220

Date of Labeling: December 11, 2014

RESTRICTED USE PESTICIDE

DUE TO ACUTE TOXICITY

For retail sale to and use by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator’s certification.

MBC-33

Pre-Plant Soil Fumigant

ACTIVE INGREDIENTS:

Methyl Bromide .................................................... 67.0%
Chloropicrin ........................................................ 32.8%

OTHER INGREDIENTS: ...................................................... 0.2%

TOTAL: .................................................................. 100.0%

This product weighs 13.95 lbs./gal. at 68 °F (20 °C).

KEEP OUT OF REACH OF CHILDREN

DANGER POISON

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

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

IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY.
TAKING PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY.

FIRST AID

IF INHALED:

• Move person to fresh air.
• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth-to-mouth, if possible.
• Call a poison control center or doctor for further treatment advice.

IF SWALLOWED:

• Call a poison control center or doctor immediately for treatment advice.
• Have person sip a glass of water if able to swallow.
• Do not induce vomiting unless told to do so by a poison control center or doctor.
• Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

• Take off contaminated clothing.
• Rinse skin immediately with plenty of water for 15-20 minutes.
• Call a poison control center or doctor for treatment advice.

IF IN EYES:

• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.
• Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.
• Call a poison control center or doctor for treatment advice.

Note: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

EMERGENCY PHONE NUMBER: Chemtrec 1-800-424-9300

NOTE TO PHYSICIAN

Early symptoms of overexposure to methyl bromide 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 overexposures 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.
PRECAUTIONARY STATEMENTS
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NOTE: CHLOROPICRIN MAY BE IRITATING TO THE UPPER RESPIRATORY TRACT, AND EVEN AT LOW LEVELS CAN CAUSE PAINFUL IRRITATION TO THE EYES, PRODUCING LUMINOUS OR YELLOW EXCRETA. IF THESE SYMPTOMS OCCUR, LEAVE THE FUMIGATION AREA IMMEDIATELY.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Some materials that are chemical-resistant to this product are listed below. For more options, follow the instructions for Category H on the chemical-resistance category selection chart. PPE constructed of Saranex, neoprene, and chlorinated polyethylene provide short-term contact or splash protection against liquid in this product. Longer-term protection is provided by PPE constructed of Viton, Teflon, and EVAL barrier laminates for example, responder suits manufactured by LifeGuard or Silvershield gloves manufactured by North Safety. Where chemical-resistant materials are required, leather, canvas, or cotton materials offer no protection from this product and must not be worn as the sole article of protection when contact with this product is possible.

When performing tasks with NO potential for contact with liquid fumigant, all handlers (including applicators) must:

- Wear long-sleeved shirt, long pants, shoes and socks.
- Not wear jewelry, eyeglasses, tight clothing, chemical-resistant gloves, rubber protective clothing, or rubber boots when handling. Methyl bromide can be trapped inside clothing and cause skin injury.
- Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

When performing tasks with NO potential for contact with liquid fumigant, all handlers (including applicators) must:

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

ENVIRONMENTAL HAZARDS
This pesticide is toxic to mammals and birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsates.

- Methyl bromide and chloropicrin have certain properties and characteristics in common with chemicals that have been detected in groundwater (methyl bromide and chloropicrin are highly soluble in water and have low adsorption to soil).
- For unartapplied applications of methyl bromide and chloropicrin, leaching and runoff may occur if there is heavy rainfall after soil fumigation.

PHYSICAL OR CHEMICAL HAZARDS
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. (See the Calibration, Set-up, Repair and Maintenance for Application Rig sections of this labeling for further requirements for application equipment.) Do not permit water to be used to clean the fumigant pressure system, as corrosion will result. Diesel oil is insufficient for this purpose.

DIRECTIONS FOR USE
Restricted Use Pesticide
It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only handlers may be in the application block from the start of the application until the entry restricted period ends, and in the buffer zone during the buffer zone period. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements
Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and other similar establishments from exposure to pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. The requirements in this box only apply to agricultural workers, and the product does not have to be covered by the Worker Protection Standard (WPS).

Recommends user safety rules for this product. PPE for entry that is permitted by this labeling must be provided annually to handlers must relieve users from complying with the requirements of the WPS.

For the entry restricted period and notification requirements, see the Entry Restricted Period and Notification sections of this labeling. PPE For Entry During the Entry-Restricted Period: PPE for entry that is permitted by this labeling is listed in the Personal Protective Equipment (Section) of this labeling.

Terms Used in This Labeling
Soil Fumigant Training Program: Certified applicator training that provides information on (1) how to correctly apply the fumigant, including how to comply with new label requirements; (2) how to identify high-risk areas; (3) how to determine buffer zone distances; (4) how to complete an FMP and the post-application soil assessment; and (5) how to develop and implement emergency response plans. Fumigant Safe Handling Information: Information that must be provided annually to handlers must include how they work, (2) safe application and handling of soil fumigants, (3) air monitoring and respiratory protection requirements, (4) early signs and symptoms of exposure, (5) appropriate steps to take to mitigate exposures, (6) what to do in case of an emergency, and (7) how to report incidents. Application Block: Area within the perimeter of the fumigated portion of a field (including furrows, irrigation ditches, roadways). The perimeter of the application block is the border that connects the outermost edges of total area treated with the fumigant product.

Application Rate: The ratio of fumigant mass applied compared to the soil surface area (e.g., lbs of product per acre). The application rate is expressed on this labeling in terms of either the "treated area application rate" or the "broadcast equivalent application rate" or the "treated area application rate" relates to only the rate of fumigant applied to the portion of the field that is fumigated (e.g., rate within the bed or strip). The "broadcast equivalent application rate" must be calculated to determine the buffer zone distance required by this labeling.

Start of the Application: The time at which the fumigant is first delivered/dispensed into the soil and the soil is sealed.

Entry Restricted Period: This period begins at the start of the application and expires depending on the application method and if tarps are used when the target is performed and removed. Entry into this application block only allowed for appropriately PPEquipped handlers performing handling tasks. See the Entry Restricted Period and Notification section for additional information. Buffer Zone: An area established around the perimeter of each application block. The buffer zone must extend outward from the edge of the application block perimeter equally in all directions. Buffer Zone Period: Begins at the start of the application and lasts for a minimum of 48-hours after the application is complete. Non-handlers must be excluded from the buffer zone during the buffer zone period.

Difficult to Evacuate Sites: Pre-K to Grade 12 schools, state-licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons.
Owner: Any person who has a present possessory interest (fee, leasehold, rental, or other) in an agricultural establishment. A person who has both interest (fee, leasehold, rental, or other) in an agricultural establishment is not an owner.

Product Information

Soil-borne pests controlled include wireworms and nematodes, weed and grass seeds, Granville Witt, Black Shank, and other diseases caused by certain species of Rhizoctonia, Pythium, Fusarium, and Phytophthora.

Use Precautions

- Comply with all local regulations and ordinances.
- Obtain an application permit from Agricultural Regulatory Agencies as required.
- Users should handle this fumigant in the open, with the operator ‘upwind’ from the container where there is good ventilation.
- 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”.
- Keep pets, livestock, and other domestic animals out of the treated area during application and during tarp perforation and/or removal, if a tarp is used.
- 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 and/or nitrate starvation to crops, avoid using fertilizers containing ammonia salts and use only fertilizers containing nitrates until after the crop is well established and the soil temperature is about 65 °F. Liming highly acid soils before fumigation will be provided where this product is purchased or under similar official duties.
- The employer of any handler (as stated in this label) must be present.
- Providing, Cleaning, and Maintaining PPE: The employer of any handler (as stated in this label) must make sure that all handlers are provided and correctly wear the required PPE. The PPE must be cleaned and maintained as required by the Worker Protection Standard for Agricultural Pesticides.

 Handlers

The following activities are prohibited from being performed by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in WPS (40 CFR Part 170):
- Monitoring fumigant air concentrations;
- Cleaning up fumigant spills (this does not include equipment personnel not associated with the application);
- Handling or disposing of fumigant containers;
- Cleaning, handling, adjusting, or repairing the parts of application equipment that may contain fumigant residues; and
- Performing any handling tasks as defined by the WPS (40 CFR 170).

The following activities are prohibited from being performed by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in WPS (40 CFR Part 170). (NOTE: persons repairing and monitoring tarp are considered handlers for the duration listed below). Prohibited activities (except for trained and equipped handlers) include:
- Participating in the application as supervisors, loaders, drivers, tractor co-pilots, shovelers, cross ditchers, or as other direct application participants;
- Installing, repairing, operating, or removing irrigation equipment;
- Performing scouting, crop advising, or monitoring tasks;
- Installing, perforating (cutting, punching, slicing, poking), or removing tarp; and
- Replacing perforating tarp until 14 days after application is complete if tarp perforates and removed during those 14 days.

Exclusion of Non-Handlers from the Application Block and Buffer Zone:

The certified applicator supervising the application and the owner of the establishment where the application is taking place must make sure that all persons who are not trained and PPE-equipped and who are not performing one of the handling tasks as stated in this labeling are:
- excluded from the application block during the entry restricted period, and
- excluded from the buffer zone during the buffer zone period (see buffer zone exemption for transit on roadways in Buffer Zone Requirements section).

Local, state, or federal officials performing inspection, sampling, or other similar official duties are not excluded from the application block or the buffer zone by this labeling. The certified applicator supervising the application and the owner of the establishment where the application is taking place are not authorized to, or responsible for, excluding those officials from the application block or the buffer zone.

Providing, Cleaning, and Maintaining PPE: The employer of any handler (as stated in this label) must make sure that all handlers are provided and correctly wear the required PPE. The PPE must be cleaned and maintained as required by the Worker Protection Standard for Agricultural Pesticides.

Protection for Handlers

For all applications, from the start of the application until the application is complete, a certified applicator must be at the application block in the line of sight of the application and must directly supervise all persons performing handling activities.

For handling activities that take place after the application is complete until the entry restricted period expires, the certified applicator is not required to be on-site, but must have communicated in a manner that can be understood by the site owner and handlers responsible for carrying out those activities the information necessary to comply with the label and procedures described in the FMP (e.g., emergency response plans and procedures).

IMPORTANT: This requirement does not override the requirements in the Worker Protection Standard for Agricultural Pesticides for information exchange between operators of agricultural establishments and commercial pesticide applicators.
Air Purifying Respirator Availability:
The employer of any handler must confirm that an air-purifying respirator and appropriate cartridges of the type specified in the PPE section of this labeling are immediately available for each handler who will wear one. At a minimum two handlers must have the appropriate air-purifying respirator and cartridges available (see Respirator Fit Testing, Medical Qualification, and Training section for additional requirements).

Exception: Air-purifying respirators do not need to be followed by use for handlers performing fumigant site monitoring tasks outside of the buffer zone.

Respirator Fit Testing, Medical Qualification, and Training:
Using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134), employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked, and
- Trained, and
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a respirator fit testing practitioner or other licensed health care professional who will evaluate the ability of a worker to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.

- Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.

Respiratory Protection and Stop Work Triggers:
The following procedures must be followed to determine whether a full-facepiece air-purifying respirator is required or if operations must cease for any person performing a handling task (except for fumigant site monitoring outside of the buffer zone) as stated in this label.

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose), then either:
  - A full-facepiece air-purifying respirator must be worn by all handlers who remain in the application block or surrounding buffer zone, or
  - Operations must cease and handlers not wearing an air-purifying respirator must leave the application block and surrounding buffer zone.

- Handlers can remove full-facepiece air-purifying respirators or resume operations if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show that levels of methyl bromide have decreased to less than 1 ppm and levels of chloropicrin have decreased to less than 0.15 ppm, provided that handlers do not experience sensory irritation. During the collection of air samples, a full-facepiece air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced.

When breathing zone samples are required, they must be taken outside respiratory protection equipment and within a 10 inch radius of the handler's nose and mouth.

- When full-facepiece air-purifying respirators are worn, air monitoring samples must be collected at least every 2 hours in the breathing zone of a handler performing a handling task.

- If at any time: (1) a handler experiences sensory irritation when wearing a full-facepiece air-purifying respirator, or (2) a methyl bromide air sample is greater than 5 ppm or a chloropicrin air sample is greater than or equal to 1.5 ppm, then all handler activities must cease and handlers must be removed from the application block and surrounding buffer zone.

- Handlers can resume work activities without full-facepiece air-purifying respirators if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show levels of methyl bromide have decreased to less than 1 ppm and levels of chloropicrin have decreased to less than 0.5 ppm. Provided that no additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.

- Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.

Tarp Perforation and/or Removal
IMPORTANT: Persons perforating, repairing, removing, and/or monitoring tarps are defined, within certain time limitations, as handlers (see Handlers section), and they must be provided with the appropriate respiratory protection as required on this labeling and in the Worker Protection Standard for Agricultural Pesticides.

- Handlers must be perforated until a minimum of 5 days (120 hours) have elapsed after the application which necessitates early tarp perforation or removal (see Early Tarp Removal for Broadcast Applications, Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only sections for additional requirements).

- If tarp perforations were made during the application, tarp perforation must not begin until at least 1 hour after tarp perforation is complete.

- If consecutive air monitoring samples taken at least 15 minutes apart are less than 5 ppm, Air samples must be taken in the breathing zone of the handler. If the 2 consecutive air monitoring samples indicate that methyl bromide levels are:
  - Less than 1 ppm and no sensory irritation is experienced, no respiratory protection is required to begin tarp removal.
  - Between 1 ppm and 5 ppm, then an air-purifying respirator is required to begin tarp removal.

See the Respiratory Protection and Stop Work Triggers and Personal Protective Equipment (PPE) sections for additional requirements.

- When perforating any tarp that qualifies for a 60% or greater reduction in buffer zone distance following broadcast shank applications:
  - All handlers must wear an air purifying respirator when perforating the tarp; and
  - Tarp removal must not begin until at least 2 hours after tarp perforation is complete and 2 consecutive air monitoring samples taken at least 15 minutes apart are less than 5 ppm. Air samples must be taken in the breathing zone of the handler. If the 2 consecutive air monitoring samples indicate that methyl bromide levels are:
    - Less than 1 ppm and no sensory irritation is experienced, no respiratory protection is required to begin tarp removal.
    - Between 1 ppm and 5 ppm, then an air-purifying respirator is required to begin tarp removal.

See www.tarpcredits.epa.gov for a list of tarps that have been tested and determined to qualify for buffer reduction credits.

- Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only:
  - Early Tarp perforation is allowed for the 5 days (120 hours) have elapsed.
  - Tarp must be immediately retucked and packed after soil removal.

- Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only:
  - Early Tarp perforation is allowed for the 5 days (120 hours) have elapsed.
  - Tarp must be immediately retucked and packed after soil removal.
Entry Restricted Period and Notification

Entry Restricted Period

Entry into the application block (including early entry that would otherwise be permitted under the WPS) by any person—other than a correctly trained and PPE-equipped handler who is performing a handyman task listed on this labeling—is PROHIBITED—from the start of the application until:

• 5 days (120 hours) after the application is complete for fumigant applications or
• 5 days (120 hours) after the application is complete if tarps are not perforated and removed for at least 14 days after the application is complete, or
• 48 hours after tarp perforation is complete if tarps will be perforated within 14 days after the application is complete.

An attorney who is performing a handyman task is subject to the time restrictions until the tarp is removed, if the tarp is removed less than 14 days after the application is complete.

Notification

Notify workers of the application by warning them orally and by posting Fumigant Treated Area signs at all entrances to the restricted area. Post the Fumigant Treated Area sign instead of the oral warning. Notify workers of the application by warning them orally and by posting Fumigant Treated Area signs. See 170.122 of the WPS, list the entry restricted period from the application until the tarp is removed if tarps will be removed for at least 14 days after the application is complete.

Notes:

See Tarp Perforation and/or Removal section on this labeling for requirements about when tarps are allowed to be perforated.

If early tarp removal occurs for a broadcast application, the entry restricted period is a minimum of 5 days after the application is complete.

When listing application information for soil fumigant applications to comply with part 170.122 of the WPS, list the entry restricted period at the start of the frame in place of the REI.

Soil Moisture

The soil must be moist 9 inches below the surface. The amount of moisture needed in this zone will vary according to soil type. Surface soil generally does not need to be considered in this determination.

Soil moisture must be determined using one of the following methods:

• the Water Content and Appearance Method for testing (see below), or
• an instrument, such as a tensiometer.

Available water capacity must be equal to or greater than the amount estimated to be lost by evaporation from tilled soil. A treatment period of no less than 14 days after the application is complete, or

• 48 hours after tarp perforation is complete if tarps will be perforated within 14 days after the application is complete.

The following soil moisture and the appearance method for estimating soil moisture as appropriate for the soil texture:

For coarse textured soils (fine sand and loamy fine sand), the soil must be moist enough (50 to 75% available water capacity) to form a weak ball with loose and fragrant sand grains, moderate watering on fingers, will not ribbon.

For medium textured soils (sandy loam and fine sandy loam), the soil is moist enough (50 to 75% available water capacity) to form a ball with defined finger marks, moderate watering on fingers, darkened color will not stick.

For fine textured soils (clay, clay loam, silt loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light watering on fingers, darkened color will not stick.

For fine textured soils (clay, clay loam, and silt clay loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light watering on fingers, darkened color will not stick.

For fields with more than one soil texture, soil moisture content in the lightest textured (most sandy) areas must comply with this soil moisture requirement. Whenever possible, the field should be divided into areas of similar soil texture, and the soil moisture of each area should be adjusted as required. However, crop residue is present. These "chimneys" allow the soil fumigants to move through the soil quickly and escape into the atmosphere. This may create potentially harmful conditions for workers and bystanders and limit the efficacy of the fumigant. However, crop residue on the field serves to prevent soil erosion from both wind and water and is an important consideration. To accommodate erosion control, fumigant efficacy, and human health protection, clear fields of crop residue as close as possible to the start of the application as possible to limit the length of time that the soil would be exposed to potentially erosive weather conditions.

Soil Temperature

The maximum soil temperature at the depth of injection must not exceed 90 °F at the beginning of the application.

If air temperatures have been above 100 °F for 3 days prior to the start of the application, then soil temperature must be measured from a ground soil sample that fumigated below a ceiling layer and moves laterally in a concentrated cloud.

Mandatory Good Agricultural Practices (GAPs)

The following GAPs must be followed during all fumigant applications.

Tarps (required for all applications, except for deep shank orchard replant [California only] applications)

• Tarps must be installed immediately after the fumigant is applied to the soil for broadcast or broad applications.

A written tarp plan must be developed and included with the data sheet for all applications. Once a tarp is perforated, the application is no longer considered tarped.

Weather Conditions

• To determine if unfavorable weather conditions exist or are predicted (see Identifying Unfavorable Weather Conditions section) and whether an application should proceed, the National Weather Service weather forecast must be checked by the certified applicator, and a decision must be made as to when the application can be made.

The application must not begin if:

• on the day of, but prior to the start of the application, and

• on a daily basis during the application if the time period from the start of the application until the tarp is removed is greater than 24 hours.

Do not apply if an air stagnation advisory issued by the National Weather Service is in effect for the area in which the application is planned, during the application, or the 48 hours after the application is complete.

Do not apply if light wind conditions (< 2 mph) are forecast to persist for more than 18 consecutive hours from the time the application starts until 48 hours after the application is complete.

Do not apply if a National Weather Service forecast for local weather conditions, wind speed, and air stagnation advisories may be obtained on-line at http://www.nws.noaa.gov, on NOAA weather radio, or by contacting your local National Weather Service Forecasting Office.

Identifying Unfavorable Weather Conditions

Unfavorable weather conditions block upward movement of air, which results in trapping fumigant vapors near the ground. The resulting air mass can move off-site in unpredictable directions. These conditions typically exist within an hour prior to sunset and continue past sunrise and may persist as long as 3 days. Unfavorable conditions are common on nights with limited cloud cover and light to no wind and their presence can be indicated by ground fog or smog and can also be identified by placing the thumb and forefinger together to form a ball of air or a ribbon that forms at the time of application and measures from 9 inches at the end of the field, no more than 48 hours prior to the start of the application.

The USDA Feel and Appearance Method for estimating soil moisture as appropriate for the soil texture:

For coarse textured soils (fine sand and loamy fine sand), the soil is moist enough (50 to 75% available water capacity) to form a weak ball with loose and clustered sand grains on fingers, darkened color, moderate watering on fingers, will not ribbon.

For medium textured soils (sandy loam and fine sandy loam), the soil is moist enough (50 to 75% available water capacity) to form a ball with defined finger marks, moderate watering on fingers, darkened color will not stick.

For fine textured soils (clay, clay loam, and silt clay loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light watering on fingers, darkened color will not stick.

For fields with more than one soil texture, soil moisture content in the lightest textured (most sandy) areas must comply with this soil moisture requirement. Whenever possible, the field should be divided into areas of similar soil texture, and the soil moisture of each area should be adjusted as required. However, crop residue is present. These "chimneys" allow the soil fumigants to move through the soil quickly and escape into the atmosphere. This may create potentially harmful conditions for workers and bystanders and limit the efficacy of the fumigant. However, crop residue on the field serves to prevent soil erosion from both wind and water and is an important consideration. To accommodate erosion control, fumigant efficacy, and human health protection, clear fields of crop residue as close as possible to the start of the application as possible to limit the length of time that the soil would be exposed to potentially erosive weather conditions.

Soil Sealing

For Broadcast Untarped Applications (CA orchard replant only): Use a disc or similar equipment to uniformly mix the soil to at least a depth of 3 to 4 inches to eliminate the chisel or plow traces. For fields with more than one soil texture, the soil surface must be compacted with a cultipacker, ring roller, and roller in combination with a field mounted aerator. For Bedded Applications: Preformed beds must be sealed by disruption of the chisel trace using press sealers, bed shapers, cultipackers, or by re-shaping (e.g., relisting, lifting, replacing) the beds immediately following injection. Beds formed at the time of application must be sealed by disrupting the chisel trace using press sealers, bed shapers, cultipackers, or by re-shaping (e.g., relisting, lifting, replacing) the beds immediately following injection. Beds formed at the time of application must be sealed by disrupting the chisel trace using press sealers, bed shapers, cultipackers, or by re-shaping (e.g., relisting, lifting, replacing) the beds immediately following injection. Beds formed at the time of application must be sealed by disrupting the chisel trace using press sealers, bed shapers, cultipackers, or by re-shaping (e.g., relisting, lifting, replacing) the beds immediately following injection. Beds formed at the time of application must be sealed by disrupting the chisel trace using press sealers, bed shapers, cultipackers, or by re-shaping (e.g., relisting, lifting, replacing) the beds immediately following injection.
Application Depth and Spacing
- For Tarped-Broadcast and Tarped-Bedded Applications: The injection point must be a minimum of 8 inches from the nearest final soil/air interface. For tarped bedded applications, the injection depth must not be deeper than the lowest point of the tarp (i.e., the lowest point of the tuck).
- For Untarped-Broadcast Applications (CA orchard replant only): The injection point must be a minimum of 18 inches from the nearest final soil/air interface.
- Apply MBC-33 Soil Fumigant with chisel equipment. The shank spacing should be equal to the application depth, but may be up to 1½ times the application depth, not to exceed 24 inches. When applying MBC-33 Soil Fumigant with a Noble plow, use an outlet spacing of 9-12 inches along the sweeps.

Prevention of End Row Spillage
- Do not apply or allow fumigant to spill onto the soil surface. For each injection line either have a check valve located as close as possible to the final injection point, or drain/purge the line of any remaining fumigant prior to lifting injection shanks from the ground.
- Do not lift injection shanks from the soil until the shut-off valve has been closed and the fumigant has been depressurized (passively drained) or purged (actively forced out via air compressor) from the system.

Calibration, Set-up, Repair, and Maintenance for Application Rigs
- Brass, carbon steel, or stainless steel fittings must be used throughout. Polyethylene tubing, polypropylene tubing, Teflon® tubing or Teflon®-lined steel braided tubing must be used for all low pressure lines, drain lines, and compressed gas or air pressure lines. All other tubing must be Teflon®-lined stry-lined.
- Galvanized, PVC, nylon, or aluminum pipe fittings must not be used.
- All rigs must include a filter to remove any particulates from the fumigant and for pressurized systems a check valve to prevent backflow of the fumigant into the pressurizing cylinder or the compressed air system.
- Rigs must include a flow meter or a constant pressure regulator, and is oriented to only allow compressed gas to flow out of the cylinder or compressed air out of the compressed air system.
  - A pressure relief valve must be installed between the regulator and the check valve to ensure a regulator failure does not over pressurize the fumigant cylinder.
  - Always pressurize the system with compressed gas or by use of a compressed air system before opening the fumigant cylinder valve.
  - Before using a fumigation rig for the first time, or when preparing it for use after storage, the operator must check the following items carefully:
    - Check the filter, and clean or replace the filter element as required.
    - Check all tubes and chisels to make sure they are free of debris and obstructions.
    - Check and clean the orifice plates and screen checks, if installed.
    - Pressurize the system with compressed gas or compressed air, and check all fittings, valves, and connections for leaks using soap solution.
  - Install the fumigant cylinder, and connect and secure all tubing. Slowly open the compressed gas or compressed air valve, and increase the pressure to the desired level. Slowly open the fumigant cylinder valve, always watching for leaks.
  - When the application is complete, close the fumigant cylinder valve and blow residual fumigant out of the fumigant lines into the soil using compressed gas or compressed air. If the rig uses a vent to gas instead of compressed gas to inject fumigant into the soil, you may clear residual fumigant from the fumigant lines using an application wand connected to the system’s low point via a drain hose. Place the wand in the soil until all residual fumigant has drained from the system. The wand and drain hose must be free of dirt to allow proper drainage.
  - At the end of the application season, disconnect all fumigant cylinders from the application rig. At the end of the season, seal all tubing openings with tape to prevent the entry of insects and dirt.
  - Application equipment must be calibrated and all control systems must be working properly. Proper calibration is essential for application equipment to deliver the correct amount of fumigant uniformly to the soil. Refer to the manufacturer’s instructions on how to calibrate your equipment. Usually the equipment manufacturer, fumigant dealer, or Cooperative Extension Service can provide assistance.

Planting Interval
Planting or transplanting must not occur until at least 14 days after the application is complete. If odors of the fumigant persist beyond this 14 day period (and after tarps are perforated and/or removed), delay planting and disc or plow the soil to help aeration. See Tarp Perforation and/or Removal section on this labeling for further requirements.

Pre-Plant Soil Fumigation in Greenhouses:
- Mandatory GAPs
  - During the application keep all doors, vents, and windows to the outside open, and keep all fans or mechanical ventilation systems running within the greenhouse.
  - Seal gaps through which gases could leak into adjacent enclosed areas.

Maximum Application Rates

<table>
<thead>
<tr>
<th>Crop/Use</th>
<th>Maximum Application Rate</th>
<th>Max Application Rate/Lbs Product/Treated Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggplant</td>
<td>522</td>
<td>200 psi during the entire time it is connected to the application rig, if a compressed gas cylinder is used. (This is not required for a compressed air system that is part of the application rig, because if the compressor system fails, the application rig will not be operable.)</td>
</tr>
<tr>
<td>Cucurbits (including muskmelons, cantaloupe, watermelon, cucumber, squash, pumpkin, and gourds)</td>
<td>373</td>
<td>447 sreppeP 892 slatnemanrO 447</td>
</tr>
<tr>
<td>Forest Nursery Seedlings</td>
<td>447</td>
<td>597 clay loam soils with less than 30% clay</td>
</tr>
<tr>
<td>Orchard Nursery Seedlings (raspberry, deciduous trees, roses)</td>
<td>447</td>
<td>261 California 3 358 Eastern US</td>
</tr>
<tr>
<td>Strawberry Nurseries</td>
<td>298</td>
<td>447</td>
</tr>
<tr>
<td>Orange</td>
<td>298</td>
<td>447</td>
</tr>
<tr>
<td>Peppers</td>
<td>298</td>
<td>447</td>
</tr>
<tr>
<td>Sweet Potato Slips</td>
<td>522</td>
<td>261 California 3 358 Eastern US</td>
</tr>
<tr>
<td>Tomato (grown for fresh market)</td>
<td>358</td>
<td>261 California 3 358 Eastern US</td>
</tr>
</tbody>
</table>

1Do not exceed specified maximum application rates in Table 1. Bed or strip applications may be made at the treated acre application rates, but their broadcast equivalent rates will be proportionately less per acre depending on the spacing and width of treatment in the row, bed or strip.
2The maximum rate to control infestation of Oak Root Fungus (Armillaria mellea) and/or endoparasitic nematodes such as root-knot (Meloidogyne spp.), dagger (Xiphinema spp.), ring (Criconemoides spp.), lesion (Pratylenchus spp.), and pin (Paratylenchus spp.) nematodes is 400 lbs methyl bromide/acre (cannot exceed 597 lbs MBC-33 per acre). Documentation of the pest(s) must be included in the site-specific fumigation management plan.
3The maximum rate to control infestation of Pisarium, Macrophomina, and/or Verticillium is 350 lbs MBC-33 per treated acre. Documentation of these pest(s) must be included in the site-specific fumigation management plan.
Quarantine applications with respect to methyl bromide are treatments to prevent the introduction, establishment and/or spread of quarantine pests (including diseases), or to ensure their official control, where: (i) Official control is that performed by, or authorized by, a national (including state, tribal or local) plant, animal or environmental protection or health authority; (ii) quarantine pests are pests of potential importance to the areas endangered thereby and not yet present there, or present but not widely distributed and being officially controlled. This definition excludes treatments of commodities not entering or leaving the United States or any State (or political subdivision thereof).

**USDA-APHIS Quarantine Uses**

This product may be used as a soil fumigant at any crop or non-crop site as part of a quarantine program established by the United States Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS) under the Plant Protection Act (7 U.S.C. 7701 et seq.). Limitations including but not limited to application rates and methods and crops and cropping practices must be in accordance with those established by the USDA-APHIS quarantine program.

**Other Quarantine Uses (not USDA-APHIS Quarantine uses)**

Quarantine use of methyl bromide is restricted to fields used for the production of plant propagative material listed below and unplanted areas immediately adjacent thereto, where all production from the treated fields will be shipped to areas where a plant regulatory authority requires the source or the incoming material to be free of quarantine pests or be accompanied by a certificate issued by a plant regulatory official.

**Forest Seedlings:**
Conifer and hardwood seedling for reforestation, Christmas tree seedlings

**Nursery Stock:**
Roses, strawberry transplants, sweet potato slips, caneberry and blueberry nursery stock, fruit and nut trees, garlic transplants, onion transplants, vineyard stock, seed potato, tobacco seed beds, food crop transplants, and other wild or cultivated trees, shrubs, vines and forbs.

**Ornamental Plants:**
Caladiums, chrysanthemums, flower bulbs, flowering plants, ornamental grasses, rhizomes, shrubs, trees, and other perennials and annuals.

**Turf or Sod:**
For interstate and intrastate shipments to areas that require fumigation with methyl bromide to meet quarantine/phytosanitary requirements

The maximum application rate for quarantine uses shall be 597 lbs of MBC-33 per acre, or less if specified in the applicable quarantine/phytosanitary requirements.

The U.S. Federal, state, or local plant, animal, environmental protection or health authority requiring the quarantine application and the particular quarantine/phytosanitary requirement must be identified in the site-specific fumigant management plan. Additionally, the requirement for the treatment (e.g., the State or Federal law) must be listed in the site-specific fumigant management plan.

### Table 2. Maximum Application Rates for Quarantine Uses

<table>
<thead>
<tr>
<th>Product</th>
<th>Maximum Rate (lbs product/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To calculate the broadcast equivalent rate for bedded or strip applications, the following information is needed:

- Pounds of product per treated acre
- Strip or bed bottom width (inches)
- Center-to-center row spacing (inches)
- Application block size (acres)

The “broadcast equivalent rate” must be calculated with the following formula:

\[
\text{broadcast equivalent rate (pounds product/acre)} = \frac{\text{strip or bed bottom width (inches)} \times \text{pounds of product / treated acre applied in the strip or bed}}{\text{center-to-center row spacing (inches)}}
\]

- The bed width must be measured from the bottom of the bed.
- The center-to-center row spacing must be calculated as shown in Figure 2.
- If there are any ditches, waterways, drive rows and other areas that are not fumigated that are in the application block, multiply the above broadcast equivalent equation by \( \frac{\text{total area of strips or beds + row spacing}}{\text{application block size}} \). A sample calculation is provided below.

### Calculating the Broadcast Equivalent Application Rate

#### Figure 1. Bedded/Strip Application (1 acre application block)

**Space Between Beds/Strips is not treated**

#### Figure 2. Center Row Spacing

**Center-to-center row space**
Sample broadcast equivalent rate calculation

Assumptions:
- Application method is shank bedded.
- Bed width is 30 inches (measured at the bottom of bed).
- Center-to-center row spacing is 60 inches.
- 200 pounds of product per treated acre is applied in the beds.
- Total application block size is 10 acres.
- Ditch in the middle of application block is 0.25 acres.
- Area of beds + row spacing is 9.75 acres.

Broadcast Equivalent Rate (pounds product/acre) = (inches) x beds + row spacing x treated acre

Assumptions:
- For broadcast shank applications using any tarp that qualifies for a 60% or greater reduction in buffer zone
- All non-handlers, including field workers, residents, pedestrians, and other bystanders, must be excluded from the buffer zone during the buffer zone period except for transit (see Buffer Zone Exemption for Transit on Roadways section).
- For all other applications, the buffer zone period begins at the start of the application and lasts for a minimum of 48 hours after the application is complete.
- See www.tarcredits.epa.gov for a list of tarps that have been tested and determined to qualify for buffer reduction credits.

Buffer Zone Requirements
- Buffer zones must not include buildings (e.g., sheds, barns, garages) UNLESS:
  1. The storage buildings are not occupied during the buffer zone period, and
  2. The storage buildings do not share a common wall with an occupied structure.
- Buffer zones must not include agricultural areas (e.g., fields, orchards, storage buildings) UNLESS:
  1. The area is not occupied during the buffer zone period, and
  2. Entry by non-handlers is prohibited during the buffer zone period, and
  3. Written permission to include the public area in the buffer zone is granted by the appropriate state or local authorities responsible for management and operation of the area.

Buffer Zone Distances
Buffer zone distances must be calculated using the application rate and the size of the application block.

Applications outside California:
- Buffer zone distances must be based on look-up tables in this labeling (25 feet is the minimum distance regardless of site-specific application parameters).
- If after applying all applicable buffer zone credits the buffer zone is greater than ½ mile (2,640 ft), then the application is prohibited.
- For all other applications, Tables 3, 4, or 5, as appropriate for the method of application must be used to determine the minimum buffer zone distances. Round up to the nearest rate and block size, where applicable. Applications are prohibited for rates or block sizes that exceed what is presented in the buffer zone tables.
Table 3. Tarped Bedded Buffer Zone Distances (feet)

| Application Block Size (Acres) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

Table 4. Tarped Broadcast Buffer Zone Distances (feet)

| Application Block Size (Acres) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

Buffer zone distances cannot be greater than 1/2 mile (2,640 feet). If after applying accurately the application credits the distance are still greater than 1/2 mile (2,640 feet) the application is prohibited.
Buffer Zone Credits
The buffer zone distances for MBC-33 applications may be reduced by the percentages listed below. Credits may be added, but credits cannot exceed 80%. Also, the minimum buffer zone distance is 25 feet, reduced by the percentages listed below.

- 10% reduction in buffer zone distance, IF the organic content of the soil in the application block is > 1% - 2%; a 20% reduction in buffer zone distance, IF the organic content of the soil in the application block is > 2% - 3%; and a 30% reduction in the buffer zone distance, IF the organic content of the soil in the application block is > 3%.
- 10% reduction in the buffer zone distance, IF the clay content of the soil in the application block is greater than 27%.

Examples of Buffer Zone Calculations with Credits Applied
If the buffer zone is 50 feet, and the application qualifies for a buffer zone credit since the soil organic content is 1.5%, then the buffer zone can be reduced by 10%, i.e., reduced by 5 feet to 45 feet.
If the buffer zone is 50 feet, and the application qualifies for two buffer zone credits since the soil organic content is 1.5% and the clay content is greater than 27%, then the buffer zone can be reduced by 20% (10% organic content credit + 10% clay content credit), i.e., reduced by 10 feet based on the following calculation 50 feet - (50 feet x 20%) = 40 feet.

Posting Fumigant Buffer Zones
- Posting of a buffer zone is required unless there is a physical barrier that prevents bystander access to the buffer zone.
- Buffer Zone signs must be posted along or outside the perimeter of the buffer zone, at all usual points of entry and along likely routes of approach from areas where people not under the owner’s control may approach the buffer zone.
- Some examples of points of entry include, but are not limited to, roadways, sidewalks, paths, and bike trails.
- Some examples of likely routes of approach include, but are not limited to, the area between a buffer zone and a roadway, or the area between a buffer zone and a housing development.
- When posting, the certified applicator supervising the application must ensure compliance with all local laws and regulations.
- Buffer Zone signs must meet the following criteria:
  - The printed side of the sign must face away from the application block toward areas from which people could approach.
  - Signs must remain legible during the entire posting period and must meet the general standards outlined in the WPS for sign size, text size, and legibility (see 40 CFR §170.120).
  - Signs must be posted no sooner than 24 hours prior to the start of the application and remain posted until the buffer zone period has expired.
  - Signs must be removed within 3 days after the end of the buffer zone period.

Buffer Zone Signs which meet the criteria above will be provided at points of sale for applicators to use. Templates may be downloaded from http://www.epa.gov/pesticides/registration/soil_fumigants/index.htm.

- The Buffer Zone signs must contain the following information:
  - The ‘Do Not Walk’ symbol
  - DO NOT ENTER/NO ENTRE.
  - Methyl Bromide Fumigant [MBC-33] BUFFER ZONE.
  - Contact information for the certified applicator in charge of the fumigation.

Exception: If multiple contiguous blocks are fumigated within a 14-day period, the entire periphery of the contiguous blocks’ buffer zones may be posted. Buffer Zone signs must be posted no sooner than 24-hours prior to the start of the first application. The signs must remain posted until the last buffer zone period expires, and the signs must be removed within 3 days after the buffer zone period for the last block has expired.

Restrictions for Difficult to Evacuate Sites
Difficult to evacuate sites are pre-K to grade 12 schools, state-licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons.

- No fumigant application with a buffer zone greater than 300 feet is permitted within 1/4 mile (1320 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.
- No fumigant application with a buffer zone of 300 feet or less is permitted within 1/8 mile (660 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.

Emergency Preparedness and Response Measures:
If the buffer zone is 25 feet, then the Emergency Preparedness and Response Measures are not applicable.

Triggers for Emergency Preparedness and Response Measures
The certified applicator must either follow the directions under the Fumigant Site Monitoring section or follow the directions under the Response Information for Neighbors section if:
- the buffer zone is greater than 25 feet but less than or equal to 100 feet, and there are residences or businesses within 50 feet from the outer edge of the buffer zone, or
- the buffer zone is greater than 100 feet but less than or equal to 200 feet, and there are residences or businesses within 100 feet from the outer edge of the buffer zone, or
- the buffer zone is greater than 200 feet but less than or equal to 300 feet, and there are residences or businesses within 200 feet from the outer edge of the buffer zone, or
- the buffer zone is greater than 300 feet or the buffer zones overlap, and there are residences or businesses within 300 feet from the outer edge of the buffer zone.

Fumigant Site Monitoring
NOTE: Fumigant Site Monitoring is ONLY required if the Emergency Preparedness and Response Measures are triggered AND directions from the Response Information for Neighbors section are not followed.

From the start of the application until the buffer zone period expires, a certified applicator or handler(s) under his/her supervision must:
- Monitor for sensory irritation in areas between the buffer zone outer perimeter and residences and businesses that trigger this requirement.
- Monitor for sensory irritation must begin in the evening on the day of application and continue until the buffer zone period expires. Monitor a minimum of 8 times during the buffer zone period, including these periods:
  - 1 hour before sunset, and during the night.
  - 1 hour after sunrise, and during daylight hours.

Implement the emergency response plan immediately if a handler monitoring experiences sensory irritation.

Table 5. Deep Untarped Buffer Zone Distances (feet)

<table>
<thead>
<tr>
<th>Application Block Size (Acres)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>35</th>
<th>40</th>
</tr>
</thead>
</table>
Emergency Response Plan

The certified applicator must include in the FMP a written emergency response plan that identifies:
- Evacuation routes,
- Locations of telephones,
- Contact information for first responders and local/state/federal/tribal personnel, and
- Emergency procedures/responsibilities (e.g., responsibilities of the certified applicator(s), persons walking the buffer zone, and/or employees of the applicator/operator) if:
  - there is an incident,
  - sensory irritation is experienced outside of the buffer zone, and/or
  - there are equipment/tarp/seed failures or complaints, or other emergencies.

Site-Specific Fumigation Management Plan (FMP)

Prior to the start of application, the certified applicator supervising the application must verify that a site-specific FMP exists for each application block. In addition, an agricultural operation fumigating multiple application blocks may format the FMP in a manner whereby all of the information that is common to all the application blocks is captured once, and any information unique to a particular application block or blocks is captured in subsequent sections.

The FMP must be prepared by the certified applicator, the site owner, registraint, or other party.

The certified applicator supervising the application must verify in writing (sign and date) that the site-specific FMP reflects current site conditions before the start of application.

Each site specific FMP must contain the following elements:

- Certified Applicator Supervising the Application
  - Name,
  - Phone number,
  - Pesticide applicator license and/or certificate number
  - Specify if commercial or private applicator,
  - Employer name,
  - Employer address, and
  - Date and location of completing EPA approved training program.

- General site information
  - Application block location (e.g., county, township-range-section quadrant), address, or global positioning system (GPS) coordinate
  - Name, address, and phone number of application block owner
  - Map, aerial photo, or detailed sketch showing:
    - application block location
    - application block dimensions
    - buffer zone dimensions
    - property lines
    - roadways
    - rights-of-ways
    - sidewalks
    - permanent walking paths
    - bus stops
    - nearby application blocks
    - surrounding structures (occupied and non-occupied)
    - locations of Buffer Zone signs, and
    - locations of difficult to evacuate sites with distances from the application block labeled.

- General application information
  - Target application date/window,
  - Fumigant Product Name, and
  - EPA registration number.

- Qualify if applicable:
  - Qualifies for a critical use exemption (CUE) at time of application and is listed in Table 1, or
  - Qualifies for a quarantine exemption and is listed in Table 2.

- If application qualifies for a quarantine exemption, identify:
  - U.S. Federal, state, or local plant, animal, environmental protection or health authority requiring the quarantine application and the particular quarantine/phytosanitary requirement.
  - Requirement for the treatment (e.g., the State or Federal law)
  - Documentation of pest(s) for control of (if applicable)
  - Oak Root Fungus (Armillaria mellea) and/or endoparasitic nematodes such as root-knot (Meloidogyne spp.), dagger (Xiphinema spp.), ring (Criconemoides spp.) lesion (Pratylenchus spp.), and pin (Paratylenchus spp.) nematodes for orchard replant
  - Fusarium, Macrophomina, and/or Verticillium for strawberry fruit.

- Tarp Plan (if tarp is used)
  - Schedule for checking tarps for damage, tears, or holes
  - Minimum size of damage that will be repaired
  - Factors used to determine when tarp repair will be conducted
  - Equipment/methods used to perforate tarps
  - Target dates for perforating tarps, and
  - Target dates for removing tarps.

- Soil Plan
  - Description of soil texture and moisture in application block
  - Method used to determine soil moisture, and
  - Soil temperature measurement if air temperatures were above 100 °F in any of the 3 days prior to the application.

- Buffer zones
  - Application method,
  - Injection depth,
  - Application rate from lookup table on label,
  - Application block size from lookup table on label,
  - Injection depth and measurements taken (if applicable)
  - Tarp brand name, lot number, thickness, manufacturer batch number, and part number
  - Potassium thiosulfate
  - Organic matter content
  - Clay content
  - Buffer zone distance,
  - Description of areas in the buffer zone that are not under the control of the owner of the application block. If buffer zones extend onto areas not under the control of the owner, attach a written agreement and keep it with the FMP.

- Record Emergency Response Plan as described in the Emergency Response Plan section.

- Posting of Fumigant Treated Area and Buffer Zone
  - Person(s) who will post and remove (if different) Fumigant Treated Area and Buffer Zone signs, and
  - Location of Buffer Zone signs.

- Emergency Preparedness and Response Measures (if applicable)
  - Fumigant site monitoring (if applicable)
  - When and where it will be conducted
  - Response information for neighbors (if applicable)
  - Name and phone numbers of person providing information, and
  - Method of providing the information.

- Start timing of that state or tribal lead agency advance notification (if state and/or tribal lead agency requires notice, provide a list of contacts that were notified and date notified)

- Plan describing how communication will take place between the certified applicator supervising the application, the owner, and other on-site handlers (e.g., tarp perforators/removers, irrigators) for complying with label requirements (e.g., buffer zone location, buffer zone start and end times, timing of tarp perforation and removal, PPE, etc.).

- Name and phone number of persons contacted by the certified applicator,

- Date contact(s) made.

- Handler (including Certified Applicators)

- Information and PPE
  - Names, addresses and phone numbers of handlers

- Names, addresses, and phone numbers for employers of handlers

- Tasks that each handler is authorized and trained to perform

- Date of PPE training for each handler

- Applicable handler PPE including:
  - Long-sleeved shirts/long pants, shoes, and socks
  - Chemical-resistant aprons
  - Chemical-resistant footwear
  - Chemical-resistant gloves
  - Air-purifying respirators
    - Respirator make, model, type, style, size, occasion, cartridge type
  - SCBAs
  - Respirator make, model, type, style, size
  - Other PPE

- For handlers: Confirmation of receipt of Fumigant Safe Handling Information.

- For certified applicator(s) supervising the application: Completion date and location of the fumigant training program listed on the following EPA website www.epa.gov/fumiganttraining for the active ingredient(s) in this product.

- For handlers designated to wear respirators (air-purifying respirator or SCBA):
  - date of medical qualification to wear a respirator
  - date of respirator training, and
  - date of fit-testing for the respirator.

- Unless exempted in the Protection of Handlers section, verify that:
  - at minimum 2 handlers have the appropriate respirators and cartridges during handler activities, and
  - the employer has confirmed that the appropriate respirator and cartridges/canisters are immediately available for each handler who will wear one.
Air monitoring plan
- For monitoring after tarp perforation is complete and before tarp removal begins, indicate:
  - Monitoring equipment to be used, and
  - Timing of monitoring.
- If sensory irritation is experienced, indicate whether operations will cease or operations will continue with use of an air-purifying respirator.

Good Agricultural Practices (GAPs)
- Identify (e.g., list, attach applicable label section) applicable mandatory GAPs.

Pesticide Product Labels and Material Safety Data Sheets (MSDS)
- Ensure that labels and MSDS are on-site and readily available for employees to review.

Record-Keeping Procedures

The owner of the application block as well as the certified applicator supervising the application must keep a signed copy of the site-specific FMP for 2 years from the date of application.

For situations where an initial FMP is developed and certain elements do not change for multiple application blocks (e.g., applicator information, certified applicator, handlers, record-keeping procedures, emergency procedures) only elements that have changed need to be updated in the site-specific FMP provided the following:
- The certified applicator supervising the application has verified that those elements are current and applicable to the application block before it is fumigated.
- Record-keeping requirements are followed for the entire FMP (including elements that do not change).

The certified applicator must make a copy of the FMP immediately available when requested by local/state/federal/tribal enforcement personnel who request the FMP. In the case of an emergency, the FMP must be made immediately available when requested by local/state/federal/tribal emergency response and enforcement personnel. The certified applicator supervising the application must ensure the FMP is at the application block during all handler activities.

Within 30 days after the application is complete, the certified applicator supervising the application must complete a Post-Application Summary.

Post-Application Summary

The owner of the application block, as well as the certified applicator supervising the application, must keep a signed copy of the Post-Application Summary for 2 years from the date of application.

Spill and Leak Procedures

In case of a rupture of hose or fitting while applying fumigant, immediately stop tractor and motor. Evacuate everyone from the immediate area of the spill or leak. Wear the personal protective equipment specified in the Personal Protective Equipment (PPE) section of this labeling for entry into affected area to correct problems. Approach from upwind to make necessary repairs. Do not enter area without the required PPE until the spill has evaporated or the leak has been fixed. Contaminated soil, water, and other cleanup debris is a toxic hazardous waste. Report spill to the National Response Center (800-424-8802) if the reportable quantity of 1000 lbs. is exceeded.

NOTICE: Contains methyl bromide, a substance which harms public health and the environment by destroying ozone in the upper atmosphere.