The page contains instructions and safety information for the use of a pesticide called MBC-33. It includes sections on personal protective equipment (PPE), emergency response, and directions for use. The document is a pesticide label that provides information on handling, storage, disposal, and emergency procedures.
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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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 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.
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 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.

SAFETY FIRST

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

EPA Reg. No. 87994-2-11220

Date of Labeling: December 11, 2014

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
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER. EXTREMELY HAZARDOUS LIQUID AND VAPOR UNDER PRESSURE. FATAL IF SWALLOWED OR INHALED. CORROSIVE, CAUSES SKIN BURNS AND IRREVERSIBLE EYE DAMAGE WHICH MAY HAVE A DELAYED ONSET. DO NOT BREATHE VAPOR OR GAS. INHALATION MAY CAUSE SERIOUS ACUTE ILLNESS OR DELAYED LUNG, NERVE, OR BRAIN INJURY. LEAVE THE FUMIGATION AREA IMMEDIATELY.

NOTE: CHLOROPRIN CAN BE TRAPPED INSIDE CLOTHING AND CAN CAUSE SKIN INJURY.

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). Where chemical-resistant materials are required, 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, long gloves, tight clothing, rubber or chlorinated polyethylene 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., short-sleeved shirt, short pants, 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 footwear 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 methyl bromide at concentrations up to 5 ppm (e.g., a 3M air-purifying respirator equipped with 3M Model 60928 Organic Vapor/Acid Gas/P100 cartridges).

IMPORTANT: A self-contained breathing apparatus (SCBA) is not permitted for routine handler tasks.

USER SAFETY REQUIREMENTS
- Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product’s concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS
Users should:
- 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 rinsate.
- 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 untargeted 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 Rigs section 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 satisfactory 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 with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and nurseries, and handlers of vegetables, fruits, and other crops. The pesticide contains requirements for training, decontamination, notification, and emergency assistance. The requirements in this box only apply to handlers. This product is subject to the requirements of the Worker Protection Standard (WPS). No instructions elsewhere on this labeling 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 (PPE) section of this labeling.

Agricultural Use Requirements
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 the new label requirements; (2) how to handle fumigant; (3) how to determine fumigation area sizes; (4) how to complete a FMP and the post-application soil fumigant training; (5) how to deal with buffer zones and other site-specific factors that are not favorable for fumigant application; (6) how to comply with required GAPs and how to document compliance with GAPs in the FMP; (7) how they work, the safe application and handling of soil fumigants, (3) air monitoring and respiratory protection training, (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.” The “treated area application rate” relates to the rate of fumigant applied to the treated area of the field that is fumigated (e.g., rate within the bed or strips). The “broadcast equivalent application rate” relates to the rate of fumigant applied within the entire perimeter of the application block. For bedded and strip applications, 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 at the application block.

Application is Complete: The time at which the fumigant has stopped being delivered/dispensed into the soil and the soil has been sealed.

Exit 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 targets are performed and removed. Entry into the application block during this period is only allowed for appropriately PPE-equipped handlers performing handling tasks. See the Exit 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 leased such agricultural establishment to another person and rented that same person the right and full authority to manage and govern the use of such agricultural establishment is not an owner. See definition of “owner” in WPS (40 CFR §170.3). Roadway: Portion of a street or highway improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk or shoulder even if such sidewalk or shoulder is used by persons riding bicycles. In the event a highway includes two or more separated roadways, the term roadway shall refer to any such roadway separately.

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 stimulates nitrification and reduces the possibility of ammonia toxicity.

Certified Applicator Training
Any certified applicator supervising a soil fumigant application must have successfully completed one of the soil fumigant training programs listed on the following EPA website www.epa.gov/fumiganttraining for the active ingredient(s) in this product. The training must be completed in the time frames listed on the website. The FMP must document the date and location where the soil fumigant training program was completed.

Product Information
Soil-borne pests controlled include wireworms and nematodes, weed and grass seeds, Granville Wilt, 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”.
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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 cleanup of 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 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 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 tarps 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 tarps; and
- Repairs on tarps until 14 days after application is complete if tarps are not perforated and removed during those 14 days.

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

Handlers do not include local, state, or federal officials performing inspection, sampling, or other similar official duties.

Protection for Handlers
Supervision of 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.

The certified applicator must provide Fumigant Safe Handling Information to each handler or confirm that within the past 12 months, each handler has received Fumigant Safe Handling Information in a manner that he/she can understand. Fumigant Safe Handling Information will be provided where this product is purchased or at www.epa.gov/fumiganttraining.

For all handling tasks at least two handlers must be present.

Exception: After the application is complete, only one trained handler is required to perform fumigant site monitoring tasks outside of the buffer zone.

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.
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 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,
- 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 physician 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.

Agricultural Pesticides. See www.tarpcredits.epa.gov for a list of tarps that have been tested and determined to qualify for buffer reduction credits.
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 the 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 penetrated 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. 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 contractor or applicator for the application:
• on the day of, but prior to the start of the application, and
• on a daily basis during the application time if the time period from the start of the application until the application is complete 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 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.

Daily National Weather Service Forecasts 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, and 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 nighttime. 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 patchy circles of a grassy round soil that forms out below a ceiling layer and moves laterally in a concentrated cloud.

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 the three days prior to the start of the application, then soil temperature must be measured and recorded in the FMP. Record temperature measurements at the application depth and 12 inches, whichever is shallower.

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 bedded or broadcast applications.
• A written tarp plan must be developed and included in the FMP for applications.
• Once a tarp is perforated, the application is no longer considered tarped.

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:
  o the USDA Feel and Appearance Method for testing (see below), or
  o an instrument, such as a tensiometer.
• Available water capacity must be equal to or greater than 50% for shank and broadcast applications. If there is less than 50% available water capacity 9 inches below the surface, the soil moisture must be adjusted. If there is no soil moisture below 9 inches, soil moisture can be adjusted by discing or plowing before the start of the application. To conserve existing soil moisture, pretreatment irrigation or permanent tillage should be done as close to the start of the application as possible.
• Measure soil moisture at a depth of 9 inches at either 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 water staining on fingers, will not ribbon.
For fine textured soils (sandy loam and fine sandy loam), the soil is moist enough (50 to 75% available water capacity) to form a ball with divided first feels, clustered sand grains on fingers, darkened color will not stick.
For medium textured soils (sandy clay loam, loam, and silt loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light staining on fingers, darkened color, pliable, and forms a weak ribbon between the thumb and forefinger.
For fine textured soils (clay, clay loam, and silty clay loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light staining on fingers, darkened color, pliable, and forms a weak ribbon between the thumb and forefinger.

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 necessary. Unfavorable soil 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 patchy circles of a grassy round soil that forms out below a ceiling layer and moves laterally in a concentrated cloud.

Bedded and Broadcast Shank Applications:
In addition to the GAPs required for all soil fumigation applications, the following GAPs apply for injection applications.

Soil Preparation
• Trash pulled by the shanks to the ends of the field must be covered with tarp, or soil, depending on the application method before making the turn for the next pass.
Prevention of End Row Spillage
For Untarped-Broadcast Applications (CA)
To prevent the backflow of fumigant into the rig, the operator must:
- 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, and check all fittings, valves, and connections for leaks using soap solution.
- Inspect the tubing for leaks after each application.
- Drain or purge the application line 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 the fumigant to freely drain. 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/or plow the soil to help aeration.

**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(^1) (lbs Product/Treated Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggplant</td>
<td>522</td>
</tr>
<tr>
<td>Cucumbits (including muskmelons, cantaloupe, watermelon, cucumber, squash, pumpkin, and gourds)</td>
<td>373</td>
</tr>
<tr>
<td>Forest Nursery Seedlings</td>
<td>447</td>
</tr>
<tr>
<td>Orchard Nursery Seedlings (raspberry, deciduous trees, roses)</td>
<td>597 clay loam soils with less than 30% clay</td>
</tr>
<tr>
<td>Strawberry Nurseries</td>
<td>447</td>
</tr>
<tr>
<td>Orchard Replant (walnuts, almonds, stone fruit, table and raisin grapes, wine grapes)</td>
<td>298</td>
</tr>
<tr>
<td>Ornaments</td>
<td>298</td>
</tr>
<tr>
<td>Peppers</td>
<td>298</td>
</tr>
<tr>
<td>Strawberry Fruit (^3)</td>
<td>261 California(^3)</td>
</tr>
<tr>
<td>Sweet Potato Slips</td>
<td>385</td>
</tr>
<tr>
<td>Tomato (grown for fresh market)</td>
<td>522</td>
</tr>
</tbody>
</table>

\(^1\)Do not exceed specified maximum application rates in Table 1. Row, 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.

\(^2\)The 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.

\(^3\)The maximum rate to control infestation of Pis quantum, 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.
Table 2. Maximum Application Rates for Quarantine Uses

<table>
<thead>
<tr>
<th>USDA-APHIS Quarantine Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Quarantine Uses (not USDA-APHIS Quarantine uses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forest Seedlings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conifer and hardwood seedling for reforestation, Christmas tree seedlings</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nursery Stock:</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ornamental Plants:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caladiums, chrysanthemums, flower bulbs, flowering plants, ornamental grasses, rhizomes, shrubs, trees, and other perennials and annuals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turf or Sod:</th>
</tr>
</thead>
<tbody>
<tr>
<td>For interstate and intrastate shipments to areas that require fumigation with methyl bromide to meet quarantine/phytosanitary requirements</td>
</tr>
</tbody>
</table>

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.

Calculating the Broadcast Equivalent Application Rate

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)

Pounds of product per treated acre is the ratio of total amount of product applied to the size of the total area treated (e.g., the rate of product applied in the bed). For bedded or strip applications, the total area treated is the summation of the area (i.e., length x width) of each treated bed bottom or strip that is located within the application block as shown by the black areas in Figure 1 (e.g., black areas are 0.6A or 60% of the area within the application block). The area of the space between the beds/strips is not factored in the total area treated.

The application block size is the acreage 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.

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 \((\text{total area of strips or beds + row spacing})/(\text{application block size})\). A sample calculation is provided below.

![Figure 1. Bedded/Strip Application (1 acre application block)](Image)

![Figure 2. Center Row Spacing](Image)

12 13
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) = strip or bed bottom width (inches) x area of strips or beds + row spacing x pounds product/ treated acre applied in the bed
center-to-center row spacing (inches) application block size

= 30-inch width beds 60-inch row spacing x 9.75 acres 10 acres x 200 pounds product/ treated acre
= 97.5 pounds product/acre

Buffer Zone Requirements

A buffer zone must be established for every fumigant application. The following describes the buffer zone requirements:
• The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.
• 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).
 o 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.
• For broadcast shank applications using any tart that qualifies for a 60% or greater reduction in buffer zone distance:
 1. The buffer zone period begins at the start of the application and ends after the tarps have been removed from the application block.
 2. As an alternative to (1) above, two buffer zone periods may be established where the first buffer zone period begins at the start of the application and lasts for a minimum of 48 hours after the application is complete. The second buffer zone period begins when the tarps are perforated and ends after the tarps have been removed from the application block.

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

Buffer zone proximity
• Before the start of application, the certified applicator must determine whether their buffer zone will overlap any methyl bromide buffer zone(s).
• To reduce the potential for off-site movement from multiple fumigated fields, buffer zones from multiple methyl bromide application blocks must not overlap.

UNLESS:
1. A minimum of 12 hours have elapsed from the time the earlier application(s) is complete until the start of the later application, and
2. Fumigant Site Monitoring or Response Information for Neighbors has been implemented if there are any residences or businesses within 300 feet of any of the buffer zones.

Structures under the control of the owner of the application block:
• Buffer zones must not include buildings used for storage, (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.

Areas not under the control of the owner of the application block:
• Buffer zones must not include residential areas (e.g., employee housing, private property), buildings (e.g., commercial, industrial), outdoor areas (e.g., lawns, gardens, play areas) and other areas that people may occupy, UNLESS:
  1. The occupants provide written agreement, prior to the start of the application, that they will voluntarily vacate the buffer zone during the entire buffer zone period, and
  2. Reentry by occupants and other non-handlers must not occur until:
   1) The buffer zone period has ended, and
   2) Sensory irritation is not experienced upon re-entry.
• Buffer zones must not include agricultural areas owned and/or operated by persons other than the owner of the application block, UNLESS:
  1. The owner of the application block can ensure that the buffer zone will not overlap with a methyl bromide buffer zone from any other property owners, except as provided in the Buffer Zone Proximity section, and
  2. The owner of the other property provides written agreement to the applicator that they, their employees, and other persons will stay out of the buffer zone during the entire buffer zone period.
• Buffer zones must not include roads and rights of way 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.

(Applications outside California: (see http://www.cdpr.ca.gov/docs/county/training/methbrom/mebrman.pdf) in accordance with Title 3, Division 6, Subchapter 4 of the California Code of Regulations in effect on January 1, 2011.

In all other cases, determine the buffer zone distance for your application using the directions under Applications outside California.

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

Applications in California:
Where a Restricted Materials Permit is required for soil fumigation (pursuant to citation for California law), use the buffer zone distance calculated for the application block that is specified in the Restricted Materials Permit issued by the County Agricultural Commissioner, provided that the buffer zone distance is equal to or greater than the buffer zone distance specified in the December 8, 2004 California Department of Pesticide Regulation Methyl Bromide Field Fumigation Guidance Manual (see http://www.cdpr.ca.gov/docs/county/training/methbrom/mebrman.pdf).

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 Broadcast Buffer Zone Distances (feet)

| Application Block Size (Acres) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 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 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |

Buffer zone distances cannot be greater than 1/2 mile (2,640 feet). If after applying applicable credits the buffer zone distances 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, regardless of buffer zone credits available.

- **Buffer Zone Reductions:**
  - Signage may be reduced by the percentages listed below.
  - Potassium thiosulfate (KTS) is applied at a rate of 10% reduction in buffer zone distance, *IF* the buffer zone is greater than 27%.

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.
- If the buffer zone is 50 feet, and the application qualifies for two buffer zone credits since the soil organic 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 placed 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 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/reregistration/soil_fumigants/index.htm](http://www.epa.gov/pesticides/reregistration/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

Diffficult 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 daycare 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 daycare 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 greater than 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**

- **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 or 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,
  - 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>
Fumigant 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, registrant, 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 the 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 FMP training program.

- **General site information**
  - Application block location (e.g., county, township-range-section quadrant), address, or global positioning system (GPS) coordinates
  - 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.

- **Apply if problems:**
  - 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
  - Fumonism, microphomina, and/or Verticillium for strawberry fruit.

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

- **Soil conditions**
  - 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
  -Creep retarder and measurements taken (if applicable)
  - Tarp brand name, lot number, thickness, and manufacturer, batch number, and part number
  - Potassium thiosulfate
  - Organic matter content
  - Clay content
  - Buffer Zone distance, and
  - 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 Safe Handling Information**
  - Respirator make, model, style, size, and cartridge type
  - Chemical-resistant apron
  - SCBAs
  - Respirator make, model, style, size, and cartridge type
  - 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 certified applicator’s FMP 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.
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 Post-Application Summary must contain the following elements:
- Actual date and time of the application
- Application rate/s
- Size of application block
- Weather Conditions
  - Summary of the National Weather Service weather forecast during the application and the 48-hours after the application is complete including:
    - wind speed, and
    - air stagnation advisory (if applicable).
  - Forecast must be checked 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 application is complete is greater than 24 hours.
- Tarp damage and repair information (if applicable):
  - Date and time tarps were perforated, and
  - Date and time of tarp repair completion.
- Tarp perforation/removal details (if applicable):
  - Date and time tarps were perforated, and
  - Record if tarps were perforated and/or removed early. Describe the conditions that caused early tarp perforation and/or removal.
- Complaint details (if applicable):
  - Person filing complaint (e.g., on-site handler, person off-site), and
  - Description of control measures or emergency procedures followed after complaint.
- Description of incidents, equipment failure, or other emergency and emergency procedures followed (if applicable).
- Air monitoring results:
  - When sensory irritation was experienced:
    - Date, time, location, and handler task/activity where irritation was observed and
    - Resulting action (e.g., cease operations, continue operations with air-purifying respirators, implement Emergency Response Plan).
  - When using a direct read detection device:
    - Sample date(s), time(s), location(s), and concentration(s), and
    - Handler task/activity monitored (if applicable), and
    - Resulting action (e.g., cease operations, continue operations with air-purifying respirators, implement Emergency Response Plan).
- Fumigant Treated Area and Buffer Zone Signs:
  - Dates of posting and removal.
- Any deviations from the FMP (e.g., changes in emergency response actions, changes in handler information, changes in handlers responsible for completing emergency tasks, changes in communication between certified applicator, owner, and other handlers).

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 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.