RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY

Tri-Clor EC Fumigant

ACTIVE INGREDIENT:
Chloropicrin: 94%

OTHER INGREDIENTS: 6%

TOTAL: 100%

This product weighs 13.46 lbs./gal. @ 68 °F (20 °C)
Contains 12.7 lbs. of chloropicrin per gallon.

KEEP OUT OF REACH OF CHILDREN

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

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 to an unconscious person.

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.

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.

NOTE TO PHYSICIAN
Chloropicrin is a volatile liquid that is the active ingredient in tear gas. As a gas it is powerful lachrymator. Early symptoms of overexposure are lacrimation, respiratory distress, and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.

EMERGENCY PHONE NUMBER:
Chometown, 1-800-424-9300

USER SAFETY REQUIREMENTS

Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions are 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 on clothing. 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.

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

POISON

DANGER

PELIGRO

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

FOR USE PESTICIDE

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 prevent injury or death, the following items are permitted: A gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G). 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 and long pants, and
• Shoes and socks.

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-saturating respirator is required under this label’s Directions for Use, Protection for Handlers, Respiratory Protection and Stop Work Triggers sections, handlers must wear at minimum either:
• A NIOSH certified full facepiece air-saturating respirator equipped with an organic vapor (OV; NIOSH approval prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, or P, or HE, NIOSH approval number prefix TC-84A), or
• A gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G).

POISON

DANGER

PELIGRO

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

FIRST AID

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

DANGEROUS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Fatal if inhaled or swallowed. Poisonous liquid and vapor. Corrosive. Liquid causes skin burns and irreversible eye damage. Do not breathe vapor or gas. Do not get in eyes or on clothing. Chloropicrin is readily identifiable by smell. Exposures to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation occurs, exposure to higher concentration may cause painful irritation or temporary blindness.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. PPE constructed of saranex, neoprene, and chlorinated polyethylene provides short-term contact or splash protection against liquid in this product. Longer-term protection is provided by PPE constructed of viton, teflon, and EVA barrier laminates (for example, responder suits manufactured by Life-guard or silver shielded gloves manufactured by North). 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.

For any questions specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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. [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 by storage or disposal.

Pesticide Storage: Store in a dry, cool, well-ventilated area under lock and key. Post a danger signage area.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinseate 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 need for the product, return the cylinder to the registrant or distributor. Replace safety cap and valve protection bonnet before shipping.

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, longs, 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. Use safety cap and valve protection bonnet when cylinder is not in use.

Return of Container: Cylinders are the property of the registrant or distributor and must be returned to the registrant or distributor. Do not ship cylinders without safety caps or valve protection bonnets.

Refillable Container: Only the registrant or distributor is allowed to refill this container. This product may be refilled with pesticide only. Do not reuse a 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 the container to aerate for at least 5 days. After aeration, wash container using hot water; then offer container to qualified recycler or dispose of as directed by State or local regulations.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Fatal if inhaled or swallowed. Poisonous liquid and vapor. Corrosive. Liquid causes skin burns and irreversible eye damage. Do not breathe vapor or gas. Do not get in eyes or on clothing. Chloropicrin is readily identifiable by smell. Exposures to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation occurs, exposure to higher concentration may cause painful irritation or temporary blindness.
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. Do not place 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, tons 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 before shipping container.

Return of Container: Cylinders are the property of the registrant or distributor and must be returned promptly after use. Do not ship cylinders without safety caps or valve protection bonnets.

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.

Tri-Clor EC Fumigant

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Tri-Clor EC Fumigant

This container can be refilled with pesticide 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.

EOC FUMICANT

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 by a poison control center or doctor.
• Do not give anything to an unconscious person.

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.

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.

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

NOTE TO PHYSICIAN
Chloropicrin is a volatile liquid that is the active ingredient in tear gas. As a gas it is a powerful lachrymator. Early symptoms of overexposure are lachrymation, respiratory distress, and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.

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

Index

SITE-SPECIFIC FUMIGATION MANAGEMENT PLAN (FMP)

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

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

KEEP OUT OF REACH OF CHILDREN

DANGER

PELIGRO

POISON

Tri-Clor EC Fumigant

ACTIVE INGREDIENT:
Chloropicrin .......................................................... 94%
OTHER INGREDIENTS: ........................................... 6%
TOTAL: .................................................................. 100%

This product weighs 13.46 lbs./gal. @ 68° F (20° C).
Contains 12.7 lbs. of chloropicrin per gallon.

Trical, Inc.
8770 Highway 25 • P. O. Box 1327
Hollister, CA 95024-1327

Sold by:

TriCal, Inc.

WARRANTY

Date of Labeling: June 24, 2015

EPA Reg. No. 58266-5-11220
EPA Reg. No. 58266-5-11220
**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER. FATAL IF INHALED OR SWALLOWED. POISONOUS LIQUID AND VAPOR. CORROSIVE. LIQUID CAUSES SKIN BURNS AND IRREVERSIBLE EYE DAMAGE. DO NOT BREATHE VAPOR OR GAS. DO NOT GET IN EYES OR ON CLOTHING.**

**CHLOROPICRIN IS READILY IDENTIFIABLE BY SMELL. EXPOSURES TO VERY LOW CONCENTRATIONS OF VAPOR WILL CAUSE IRRITATION OF EYES, NOSE AND THROAT. CONTINUED EXPOSURE AFTER IRRITATION OCCURS, OR EXPOSURE TO HIGHER CONCENTRATION MAY CAUSE PAINFUL IRRITATION OR TEMPORARY BLINDNESS.**

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. 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 Life-guard or silvershield gloves manufactured by North). 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 and long pants, and
- Shoes and socks.

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, and
- 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 sections, handlers must wear at minimum either:

- A NIOSH certified full facepiece air-purifying respirator equipped with an organic vapor (OV, NIOSH approval prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P, or HE, NIOSH approval number prefix TC-84A), or
- A gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G).

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 air concentrations to acceptable levels, wear an 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.

**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 on clothing. 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.
- Chloropicrin has certain properties and characteristics in common with chemicals that have been detected in groundwater (chloropicrin is highly soluble in water and has low adsorption to soil).
- For untarped applications of 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 System Controls and Integrity 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 greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. The requirements in this box only apply to uses of this product that are covered by 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 section 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.
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 protect handlers, bystanders, and others in the area from the effects of the fumigant; (3) how to determine buffer zone distances; (4) how to complete an FMP and the post-application summary; (5) how to determine when weather and other site-specific conditions are suitable for fumigant application; (6) how to comply with required GAPs and how to document compliance with GAPs in the FMP; and (7) how to develop and implement emergency response plans.

Fumigant Safe Handling Information: Information that must be provided annually to handlers must include the following: (1) what fumigants are and how they work, (2) safe application and handling of soil fumigants, (3) air monitoring and respiratory protection requirements for handlers, (4) early signs and symptoms of exposure, (5) 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 field (including field borders, 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., pounds 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” is the ratio 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” relates to only 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.

Product Information
TRI-CLOR EC is a fumigant for the control of soil-borne pests (e.g., wireworms and nematodes) and diseases cause by certain species of Pythium, Phytophthora, Fusarium, and Verticillium. It is to be used in soil to be planted to fruit, nut, vegetable, field, flower, or ornamental crops. The product must be applied under permanent plastic mulch or in open beds. If applied to open beds (untrapped) the drip tape must be buried at minimum 5 inches.

Use Precautions
This fumigant is a highly hazardous material and must be handled with care only by certified applicators or persons under the direct supervision of a certified applicator who are trained with its proper use.

Comply with all local regulations and ordinances. Obtain an application permit from Agricultural Protection prior to application. In the buffer zone, obtain medical assistance at once in case of illness after exposure, and do not allow conditions which could incidentally cause further exposure until recovery is complete.

Never fumigate alone. It is imperative to always have an assistant and proper protection equipment, to aid in case of an accident.

Drivers of application equipment must advise other workers of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the tractor and how to work with the tractor driver while fumigating.

Handle this fumigant in the open, when possible, with the operator “upwind” from the container where there is good ventilation.

Keep the applicator and all other domestic animals out of the treated area during application and during tarp perforation and/or removal if a tarp is used.

For water-run applications, the “fumigant application rate” equals the amount 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 irrigated or subjected to organic application. To avoid injury to plant roots, fertilizer 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 above 65°F. Limiting 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/fumiganttrainingforagriculturalpesticides. Any certified applicator in the post-application period who supervises an area must complete the post-application period. The FMP must document the date and location where the soil fumigant training program was completed.

Handlers
The following activities are prohibited from being performed by any person other than those 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 emergency personnel not associated with the application).

Handling or disposing of fumigant containers.

Cleaning, handling, adjusting, or repairing the parts of equipment which may contain fumigant residues.

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 period through the restricted period 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 tarp are considered handlers for the duration listed below). Prohibited activities (except for trained and equipped handlers):

Participating in the application as supervisors, loaders, drivers, tractor co-pilots, shoveler, cross country fumigant 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

Repairing or monitoring tarp until 14 days after application is complete if tarp are not perforated and removed during those 14 days.

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

Handlers do not include local, state, or federal officials who are responsible for inspecting, sampling, or other similar official duties.

Protection for Handlers

Certifying Applicator Supervisor: For water-run applications (e.g., drip), a certified applicator must be in the line of sight of the application at the start of the application, while the application is being monitored, and throughout the application. Certified applicator supervisors must be in the line of sight of all applicators taking part in the application.

A certified applicator may leave but must return at least two hours to visually inspect the equipment to ensure proper function of the equipment. Certified applicator supervisors must directly supervise all WPS-trained handlers until the application is complete. WPS-trained handlers may perform these monitoring functions in the presence of a certified applicator but they must be under the supervision of a certified applicator and able to communicate with a certified applicator for information exchange between operators in the event the system breaks down and necessary adjustments should the need arise.

Individuals who take part in the 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 continuous communication with the certified applicator at all times during monitoring activities via a cellular telephone or other means.

The certified applicator or WPS trained handlers under the supervision of and in communication with the certified applicator must perform the monitoring activities in place of a certified applicator but they must be under the supervision of a certified applicator and able to communicate with a certified applicator for information exchange between operators in the event the system breaks down and necessary adjustments should the need arise.

The certified applicator must provide Fumigant Safe Handling Information to each handler or confirm that within the past 12 months, each handler associated with the certified applicator 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 at all times.

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

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 is no longer a party to the lease, and has full authority to manage and govern the use of such agricultural establishment is not an owner. See definitions in 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 part of the roadway. In a police substation, the roadway must be separated from the sidewalk or shoulder even if such sidewalk or shoulder is part of the roadway.

Entry Restricted Period: This period begins at the start of the application period and notification section for additional information.
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 (except for entry restricted period 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 must ensure that the establishment where the application is taking place are not authorized to, or responsible for, excluding these 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/canisters of the type specified in the 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/canisters available. (See Respirator Fit Testing, Medical Qualification, and Training section for additional requirements.)

Exception: Air-purifying respirators do not need to be made available for handlers performing fumigant site monitoring tasks outside of the buffer zone. Cartridges/canisters cannot be replaced when odor or sensory irritation from this product becomes apparent during use, if the measured concentration of chloropicrin is greater than or equal to 1.5 ppm, or after 8 hours of cumulative use, whichever occurs first.

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.
• 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 an air-purifying respirator (full facepiece or gas mask) is required or if operations must cease for any person performing a handling task outside the application block. (See Fumigant Treated Area signs list on this labeling for requirements about when tarps are allowed to be perforated. See Respirator Fit Testing, Medical Qualification, and Training section for additional requirements.)

If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose), then:
• An air-purifying respirator (full facepiece or gas mask) must be worn by all handlers who remain in the application block or surrounding buffer zone.
• Operations must cease and handlers not wearing an air-purifying respirator must leave the application block and surrounding buffer zone.
• Handlers can remove air-purifying respirators (full facepiece or gas mask) or resume operations if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show that 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, canisters of the type specified in the labeling must be used. The devices must have sensitivity of at least 0.15 ppm for chloropicrin. Persons using direct read detection devices must follow the manufacturer’s directions.
• 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 air-purifying respirators (full facepiece or gas mask) are worn, air monitoring samples must be collected at the breathing zone of a handler performing a representative handling task.
• If at any time: (1) a handler experiences sensory irritation (tearing, burning of the eyes or nose), then:
  o the handler must cease the handling task, and
  o the air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced or where the sample(s) were greater than or equal to 1.5 ppm.
• If a handler resumes work activities without air-purifying respirators (full facepiece or gas mask) if two consecutive breathing zone samples taken at the handling site at least 15 minutes apart show 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 an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced or where the sample(s) were greater than or equal to 1.5 ppm.

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 later in this labeling) for at least 5 days after the application is complete. Other protections for handlers as required on this labeling and in the Worker Protection Standard for Agricultural Pesticides.

Tarp perforation is allowed before the 5 days have elapsed after the application is complete, unless a weather condition exists which necessitates early tarp perforation (see Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only requirements.)

If it is determined by a person performing a handling task listed on this labeling – is PROHIBITED - from the start of the application until:
• 5 days (120 hours) after the application is complete for unharvested 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 and will not be removed for at least 14 days after the application is complete, or
• tarp removal is complete if tarps are both perforated and removed less than 14 days after the application is complete.

Tarp Perforation:
• Tarp perforation is allowed before the 5 days have elapsed after the application is complete, unless a weather condition exists which necessitates early tarp perforation (see Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only requirements.)

If it is determined by a person performing a handling task listed on this labeling – is PROHIBITED - from the start of the application until:
• 5 days (120 hours) after the application is complete for unharvested 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 and will not be removed for at least 14 days after the application is complete, or
• tarp removal is complete if tarps are both perforated and removed less than 14 days after the application is complete.

TARP PERFORATION DURING FLOOD PREVENTION ACTIVITIES FOR BEDDED APPLICATIONS ONLY:

Entry Restricted Period and Notification
Entry Restricted Period:
Entry Restricted Period (excluding 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 handling task listed on this labeling – is PROHIBITED - from the start of the application until:
• 5 days (120 hours) after the application is complete for unharvested 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 and will not be removed for at least 14 days after the application is complete, or
• tarp removal is complete if tarps are both perforated and removed less than 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.
• Fumigant Treated Area signs list the entry restricted period time frame in place of the RÉ.

Notification:
Notifiers of the application by warning them orally and by posting Fumigant Treated Area signs. The signs must bear the skull and crossbones symbol and state:
• “DANGER/PELIGRO,”
• “Area under fumigation, DO NOT ENTER / NO ENTRE,”
• “Chloropicrin Fumigant in USE,”
• “date and time of fumigation,”
• “TRI-CLOR EC FUMIGANT,” and
• “Name, address, and telephone number of the certified applicator in charge of the fumigation.

Post the Fumigant Treated Area sign instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, text size, and sign size (40 CFR §170.120).

Post Fumigant Treated Area signs at all entrances to the buffer zone no sooner than 24 hours prior to application.

Fumigant Treated Area signs must remain posted for no less than the duration of the entry restricted period.

Fumigant Treated Area signs must be removed within 3 days after the end of the entry restricted period.

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

Post the Fumigant Treated Area sign instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, text size, and sign size (40 CFR §170.120).

Post Fumigant Treated Area signs at all entrances to the buffer zone no sooner than 24 hours prior to application.

Fumigant Treated Area signs must remain posted for no less than the duration of the entry restricted period.

Fumigant Treated Area signs must be removed within 3 days after the end of the entry restricted period.
Mandatory Good Agricultural Practices (GAPs)

The following GAPs must be followed during all fumigation applications:

**Tarps** (when tarps are used in TRI-CLOR EC FUMIGANT applications):
- A written tarp plan must be developed and included in the FMP.
- Once a tarp is perforated, the application is no longer considered tarped.
- If tarps are used, they must be put in place before the application starts.
- Tarp edges must be buried along the furrow and at the ends of rows.

**Application Depth:**
- For Untarped Applications: The drip tape must be buried at a minimum of 5 inches.

**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 supervising the application:
  - 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.
- 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.
- Detailed 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, 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 masses can be off-site in unpredictable directions. These conditions typically exist within an hour prior to sunset and continue past sunrise and may persist as late as noontime. Unfavorable conditions are most 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 smoke from a ground source that flattens out below a ceiling layer and moves laterally in a concentrated cloud.

**Soil Preparation**
- Soil must be properly prepared and at the surface generally be free of large clods. The area to be fumigated must be tilted to a depth of 5 to 8 inches.
- Till fields with known plowpans because they can lead to puddling of the fumigant due to inadequate soil drainage.
- Field trash must be properly managed. Residue from a previous crop must be worked into the soil to allow for decomposition prior to the start of the application. Little or no crop residue shall be present on the soil surface. Crop residue that is present may interfere with the soil seal. Removing the crop residue prior to the start of the application is important to limit the natural “chimneys” that occur in the soil when 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 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.
- Beds should be listed, shaped and ready for planting.

**Soil Moisture:**
- For all soil types, pre-application moisture should be dry enough to prevent soil saturation and bed collapse once application and flushing are complete.
- Soil moisture should be at 50% of field capacity 2-3’ at the time of TRI-CLOR EC FUMIGANT application.

**Product and Dosage:**
- Plan the application by calculating the amount of fumigant required at the appropriate rate for the crop, acreage, and target pest. The fumigant must be metered into the water supply line and then passed through a mixing device, such as a centrifugal pump or static mixer, to assure proper agitation.
- TRI-CLOR EC must be applied through a drip irrigation system to wet the soil thoroughly in the area being treated. Drip emitters should be spaced 8-12 inches apart.
- Meter TRI-CLOR EC into the drip system according to the dosage. An adequate concentration of TRI-CLOR EC must be present in order to be effective. At no time should the concentration of TRI-CLOR EC exceed 4,500 ppm by weight in the drip line. For example, a 300 pounds per treated acre application rate would require 8,000 gallons of water per treated acre to deliver 4,500 ppm.

**System Controls and Integrity:**
- The irrigation system (main lines, headers, drip tape) must be thoroughly checked for leaks before the start of application. Leak detection requires that the irrigation system be at full operating pressure. The amount of time needed at full operating pressure will vary by irrigation system design. Look for puddling along major pipes (holes in pipes or leaky joints), at the top and ends of rows (leaky connection, open drip tape), and on the bed surface (damaged drip tape, malfunctioning emitters). Any leaks discovered during the pre-application check must be repaired prior to the start of the application.
- To inject fumigant, use a metering system (such as a positive pressure system, positive displacement injection pump, diaphragm pump, or a Venturi system) effectively designed and constructed of materials that are compatible with the fumigant and capable of being fitted with system interlocking controls. Do not use containers, pumps, or other equipment made of aluminum, magnesium or their alloys as chloropicrin can be corrosive to such metals.
- The system must contain:
  - A functional check valve, a vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination and backflow;
  - A functional, automatic, quick-closing check valve to prevent the flow of fluids back toward the fumigant container;
  - A functional, normally closed solenoid-operated valve located on the intake side of the injection point and connected to the system interlock to prevent the fumigant from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down; and
  - Functional interlocking controls to automatically shut off the fumigant injection when the irrigation water flow stops or decreases to the point where fumigant distribution is adversely affected.
- Crop injury and/or lack of effectiveness can result from non-uniform distribution of treated water.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**Site of Injection and Irrigation System Layout:** Site of injection must be as close as practical to the area being treated (such as direct injection of fumigant into the header pipe manifold or into an aboveground delivery pipe attached to the header). If the fumigant is injected into a main line, make sure the irrigation pipe is able to be closed off from the fumigant as the air mass can move off-site in unpredictable movements. Fumigant distribution is adversely affected.

- The system must contain:
  - A functional, normally closed solenoid-operated valve located on the intake side of the injection point and connected to the system interlock to prevent the fumigant from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down; and
  - Functional interlocking controls to automatically shut off the fumigant injection when the irrigation water flow stops or decreases to the point where fumigant distribution is adversely affected.
- Crop injury and/or lack of effectiveness can result from non-uniform distribution of treated water.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**Maximum Application Rate for Pre-Plant Soil Uses**
- 320 pounds TRI-CLOR EC FUMIGANT per treated acre

**System Flush:**
After application of the fumigant, continue to drip-irigate the area with water to flush the irrigation system. Do not allow the fumigant to remain in the irrigation system after the application is complete. The total volume of water, including the amount used for flushing the irrigation system, must be adequate to completely remove the fumigant from the lines, but should be less than the amount that could over-saturate the beds (bed collapse can occur from over-saturation) and should not exceed 1.5 acres (40,000 gallons) of water per acre. If common lines are used for both the fumigant application and water seal (if a water seal is applied) these lines must be adequately flushed before starting the water seal and/or normal irrigation practices.

**Planting Interval:**
- Do not disturb treated soil for 2 weeks. Wet soil retards diffusion of the fumigant thus requiring a longer aeration period. Aeration is usually complete when the odor of the fumigant is no longer evident.

**Requirements for Pre-Plant Drip Irrigation**

**Soil Fumigation in a Greenhouse**
- The maximum application block size that can be treated is 50,000 square feet.
- All applications must be tarped.
- During the application keep all doors, vents, and windows to the outside open, and keep all fans of mechanical ventilation systems running within the greenhouse.
- Leaks through which gases could enter adjacent enclosed areas must be sealed.

Maximum Application Rate for Pre-Plant Soil Uses
- 320 pounds TRI-CLOR EC FUMIGANT per treated acre
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:

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

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

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.

\[
\text{broadcast equivalent rate (pounds product/acre)} = \frac{30\text{-inch width beds} \times 9.75\text{ acres} \times 200\text{ pounds product/treated acre}}{60\text{-inch row spacing} \times 10\text{ acres}} = 97.5\text{ pounds product/acre}
\]
Buffer Zone Requirements

A buffer zone must be established for every fumigant application. The following describes the buffer zone requirements:

1. The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.
2. All non-handlers, including field workers, residence holders, pedestrians, and all others must be excluded from the buffer zone during the buffer zone period except for transit [see Buffer Zone Exemption for Transit on Roadways].

Buffer Zone Distances

1. The buffer zone period begins at the start of 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.
2. The buffer zone period begins at the start of the buffer zone period and lasts for a minimum of 48 hours after the completion of the buffer zone period.

Buffer zone proximity

1. Before the start of application, the certified applicator must determine whether their buffer zone will overlap any chloropicrin buffer zone(s).
2. To reduce the potential for off-site movement from multiple fumigated fields, buffer zones from multiple chloropicrin application blocks must not overlap unless:
   a. A minimum of 12 hours have elapsed from the time the earlier application(s) is complete until the start of the later application, and
   b. Sensory irritation is not experienced upon applicator re-entry.

Buffer Zone Exemption for Transit on Roadways

Vehicular and bicycle traffic on public and private roadways through the buffer zone is permitted. (NOTE: Buffer zones are not permitted to include bus stops or other locations where persons wait for public transit.)

2. Entry by non-handlers is prohibited during the buffer zone period.
3. Written permission to include the public area in the buffer zone during the entire buffer zone period.

Buffer Zone Exemption for Transit on Roadways

1. The buffer zone period has ended, and
2. Sensory irritation is not experienced upon applicator re-entry.

Buffer zones must include agricultural areas owned and/or operated by persons other than the owner of the application block.

1. The buffer zone will overlap any chloropicrin buffer zone(s).
2. The buffer zone period begins at the start of the buffer zone period, and
3. Written permission to include the public area in the buffer zone is granted by the appropriate local, state, and/or federal officials responsible for management and operation of the area.

Certified applicators must comply with all local laws and regulations.

See the Posting section for additional requirements that may apply.

Buffer Zone Distances

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

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).

For all other application Tables 1 to 3 must be used to determine the minimum buffer distances as appropriate for the method of application and the size of the application block. 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. Drip Tarp Greenhouse Buffer Zone Distances in Feet

<table>
<thead>
<tr>
<th>Application Block Size (Acres)</th>
<th>Buffer Zone (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 25,000</td>
<td>25</td>
</tr>
<tr>
<td>&gt; 25,000 and ≤ 30,000</td>
<td>50</td>
</tr>
<tr>
<td>&gt; 30,000 and ≤ 35,000</td>
<td>75</td>
</tr>
<tr>
<td>&gt; 35,000 and ≤ 40,000</td>
<td>100</td>
</tr>
<tr>
<td>&gt; 40,000 and ≤ 45,000</td>
<td>115</td>
</tr>
<tr>
<td>&gt; 45,000 and up to 50,000</td>
<td>130</td>
</tr>
</tbody>
</table>

### Buffer Zone Credits

The buffer zone distances for TRI-CLOR EC FUMIGANT 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.

- See [www.tarpcredits.epa.gov](http://www.tarpcredits.epa.gov) for a list of tarps that have been tested and determined to qualify for buffer reduction credits. Only tarps listed on this website qualify for buffer reduction credits.
- 15% reduction in buffer zone distance, IF potassium thiosulfate (KTS) is applied at a minimum rate of 300 pounds per acre.
- 15% reduction in buffer zone distance, IF ¼ to ½ inch of water is applied.
- 10% reduction in buffer zone distance, IF the soil 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 buffer zone distance, IF the soil temperature is measured to be 50 °F or less. Record temperature measurements at the application depth or 12 inches, whichever is shallower.
- 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**: Contact information for the certified applicator in charge of the fumigation.
- **FUMIGANT**: The ‘Do Not Walk’ symbol must be included on the buffer zone signs.
- **TRI-CLOR EC FUMIGANT (Chloropicrin)**: Buffer Zone, except for foliar applications or by-CGAC or WCA-10530.

### 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.
- **Examples of points of entry include, but are not limited to**, roadways, sidewalks, paths, and bike trails.
- **Examples of likely routes of approach include, but are not limited to**, 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 buffer zone.
  - The printed side of the sign must face away from the buffer zone.
  - The printed side of the sign must face away from the buffer zone.
  - The printed side of the sign must face away from the buffer zone.

### 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.
Preparedness and Response Measures

Emergency Preparedness and Response Measures

- **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 or less is permitted within 1/4 mile (1,320 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 offices and residences 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.
- Implement the emergency response plan immediately if a handler monitoring experiences sensory irritation.
- Handle performing fumigant site monitoring checks at the buffer zone are not required to wear an air-purifying respirator.

**Response Information for Neighbors**

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

The certified applicator supervising the application must ensure that residences and businesses that trigger the requirement have been provided the response information at least 1 week before the application starts. The information provided may include application dates that range for no more than 4 weeks. If the application does not occur when specified, the information must be delivered again.

Information that must be included:

- The location of the application block.
- Fumigant(s) applied including the active ingredient, name of the fumigant product(s), and the EPA Registration number.
- Contact information for the applicant and property owner.
- Time period in which the application is planned to take place (must not range more than 4 weeks).
- Early signs and symptoms to look for: The fumigant(s) applied, what to do, and who to call if you believe you are being exposed (911 in most cases).
- How to find additional information about fumigants.

The method used to share the response information for neighbors can be accomplished through mailings, door hangers, or other methods that will effectively inform the individual and businesses within the required distance from the edge of the buffer zone.

**Notice to State and Tribal Lead Agencies**

If your state and/or tribal lead agency requires notice, information must be provided to the appropriate state or tribal lead agency prior to the application. Please refer to [www.epa.gov/fumigantstatenotice](http://www.epa.gov/fumigantstatenotice) for a list of states and/or tribal lead agencies that require notice and information on how to submit the information.

The information that must be provided to state and tribal lead agencies includes the following:

- Location of the application blocks.
- Fumigant(s) applied including EPA registration number.
- Applicant and property owner contact information.
- Time period that fumigation may occur.

**Emergency Response Plan**

The certified applicator must include in the FMP a written emergency response plan that identifies:

- Evacuation routes,
- Locations of telecommunications,
- Contact information for first responders and local/state/federal/tribal personnel, and
- Emergency procedures/responsibilities (e.g., adding water to the field, repairing tarps, fixing equipment, evacuating upwind) if:
  - there is an incident,
  - sensory irritation is experienced outside the buffer zone,
  - there are equipment/tarp/teal failure or complaints, or other emergencies.

**Site-Specific Fumigation Management Plan (FMP)**

Prior to the start of application, the certified applicator must verify if the Emergency Preparedness and Response Measures are triggered for a 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 application.

Each site specific FMP must contain the following information:

- **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 soil fumigant training program.

- **General Application 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
    - french drains
    - nearby application blocks
    - surrounding structures (occupied and non-occupied)
    - locations of Buffer Zone signs, and
  - Descriptions 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.

- **Tarp Plan**
  - When and where it will be conducted.

- **Soil Conditions**
  - Description of soil texture and moisture in application block, and
  - Method used to determine soil moisture.

- **Buffer Zones**
  - Application method,
  - Injection depth,
  - Application rate from lookup table on label,
  - Application block size from lookup table on label,
  - Credits applied and measurements taken (if applicable),
  - Tarp brand name, lot number, thickness, manufacturer, batch number, and part number,
  - Potassium thiosulfate
  - Water seal,
  - Organic matter content
  - Clay content
  - Soil temperature
  - Buffer zone distance, and
  - Description of areas in the buffer zone that are not under the control of the owner of the buffer zone. If buffer zones extend onto other businesses under the control of the owner, attach the 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**
  - Fumigant site monitoring (if applicable):
    - When and where it will be conducted.
  - General information for neighborhoods (if applicable):
    - List of residences and businesses informed,
    - Name and phone number of person providing information, and
    - Method of providing the information.

- **State and/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 and the buffer zone owner, 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).**
Name and phone number of persons contacted by the certified applicator, and
- Date contacted.
- Handler (including Certified Applicators) Information:
  o Names, addresses and phone numbers of handlers
  o Names, addresses, and phone numbers for employers of handlers
  o 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, socks
  - Chemical-resistant apron
  - Chemical-resistant footwear
  - Protective eyewear (not goggles)
  - Chemical-resistant gloves
  - Air-purifying respirators
    - Respirator make, model, type, style, size, and cartridge/canister 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 soil 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 for Handlers section, verify that:
  - at minimum 2 handlers have the appropriate respirators and cartridges/canisters 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
  o If sensory irritation is experienced, indicate whether operations will cease or operations will continue with use of an air-purifying respirator
  o For monitoring the breathing zone:
    - Representative handler tasks to be monitored,
    - Monitoring equipment to be used, and
    - Timing of the monitoring.
- Good Agricultural Practices (GAPs)
  o Identify (e.g., list, attach applicable label section) applicable GAPs
  o Pesticide Product Labels and Material Safety Data Sheets (MSDS)
  o 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 for viewing by handlers involved in the application. The certified applicator or the owner of the application block must provide a copy of the FMP to any local/state/federal/tribal emergency response 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 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
- 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 of tarp damage discovery,
  - Location and size of tarp damage,
  - Description of tarp/tarp seal/tarp equipment failure, and
  - Date and time of tarp repair completion.
- Tarp perforation/removal details (if applicable):
  - Date and time tars were perforated,
  - Date and time tarp were removed, and
  - Record if tars were perforated and/or removed early. Describe the conditions that caused early tarp perforation and/or removal.

Spill and Leak Procedures
Evacuate everyone from the immediate area of the spill or leak. For entry into affected area to correct problems, wear the personal protective equipment specified in the Personal Protective Equipment (PPE) section of this labeling. Move leaking or damaged containers outdoors or to an isolated location. Observe strict safety precautions. Work upwind, if possible. Allow spilled fumigant to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Dispose of contaminated material on site or at an approved disposal facility. Only correctly trained and PPE-equipped handlers are permitted to perform such cleanup. Do not permit entry into the spill or leak area by any other person until the concentration of chloropicrin is measured to be 0.15 ppm or less.
- 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.
  - Evacuate everyone from the immediate area of the spill or leak. For entry into affected area to correct problems, wear the personal protective equipment specified in the Personal Protective Equipment (PPE) section of this labeling. Move leaking or damaged containers outdoors or to an isolated location. Observe strict safety precautions. Work upwind, if possible. Allow spilled fumigant to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Dispose of contaminated material on site or at an approved disposal facility. Only correctly trained and PPE-equipped handlers are permitted to perform such cleanup. Do not permit entry into the spill or leak area by any other person until the concentration of chloropicrin is measured to be 0.15 ppm or less.

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