**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER.** Hazardous liquid and vapor. May cause lung, liver, and kidney damage and respiratory system irritation upon prolonged contact. The use of this product may cause severe injury to you and your health. This product contains 1,3-dichloropropene (below, which has been determined to cause tumors in laboratory animals. Risks can be reduced by exactly following directions for use, precautionary statements, and by wearing the personal protective equipment specified in this labeling. Fatal if inhaled or swallowed. Poisonous liquid and vapor. Causes severe eye damage. Do not breathe vapor or gas. Do not get in eyes, on skin 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 to vapor or exposure to higher concentrations may cause painful irritation or temporary blindness.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. For more information, follow the instructions for Category H on the chemical resistance category selection chart. PPE constructed of saranex, neoprene, and chlorinated polyethylene provide strong 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, resistance available from the manufacturer).

**DIRECTIONS FOR USE**

**RECOMMENDED USES**

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.

**ACTIVE INGREDIENTS:**

<table>
<thead>
<tr>
<th>1,3-Dichloropropene</th>
<th>39.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Ingredients</td>
<td>59.6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

This product weighs 12.1 lbs./gal. @ 68°F (20°C).

Contains 4.7 pounds of 1,3-Dichloropropene and 7.2 pounds of Chloropicrin per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**POISON**

*Si Usado no entiende la etiqueta, busque a alguien para que le explique el Usado en detalle.*

**IF SWALLOWED:**

• 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.

**IF ON SKIN OR CLOTHING:**

• Take off contaminated clothing.

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

**FIRST AID**

<table>
<thead>
<tr>
<th>Inhaled</th>
<th>On Skin or Clothing</th>
<th>In Eyes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move person to fresh air.</td>
<td>Take off contaminated clothing.</td>
<td>Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</td>
</tr>
<tr>
<td>If person is not breathing, call 911 or an ambulance, and then give artificial respiration by mouth-to-mouth, if possible.</td>
<td>Rinse skin immediately with plenty of water for 15-20 minutes.</td>
<td>Remove contact lenses, if present, after 5 minutes, and then continue rinsing eyes.</td>
</tr>
<tr>
<td>Call a poison control center or doctor for further treatment advice.</td>
<td>Call a poison control center or doctor for treatment advice.</td>
<td>Call a poison control center or doctor for treatment advice.</td>
</tr>
</tbody>
</table>

**NOTE TO PHYSICIAN**

Because rapid absorption may occur through lungs if product is aspirated and cause systemic effects, the decision to induce vomiting or not should be made by a physician. Probable mucosal damage may occur at the time of ingestion. When and if vomiting is induced, give a measured quantity of a liquid emulsion, such as milk,/renderer emulsion, or three parts of milk to one part of oil. If vomiting occurs, do not give anything by mouth to an unconscious person.

**NOT FOR USE IN GREENHOUSES OR OTHER ENCLOSED AREAS AND NOT FOR USE IN DRIPL OR OTHER CHEMIGATION APPLICATIONS.**

**SOIL CHEMICALS CORPORATION D/B/A CARDINAL PROFESSIONAL PRODUCTS**

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

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

**Agricultural Use Requirements**

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

**Storage and Disposal**

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

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide and rinsates is a violation of Federal law. If these wastes cannot be disposed of by use according to the label, contact your state or local environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance. Because 1,3-dichloropropene is corrosive under certain conditions, flush all application equipment with water, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel oil mixture before storing. Do not use water. Dispose of rinsate by applicable Federal, State and local regulations.

**REPELLENTIAL LABEL**

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.

**Refillable Container:** Only the registrant is authorized to refill cylinders. Refill this container with pesticide from a registered refiller 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. 

**Containers and PPE:** Containers are the property of the manufacturer or distributor and must be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets.

**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.

**[See label booklet for complete Directions for Use.]**

**Soil Chemicals Corporation D/B/A Cardinal Professional Products**

P. O. Box 782 • Holister • CA 95042-0782 • (831) 630-2258

EPA Reg. No. 11220-CA-4

**NET CONTENTS**

100.0% TOTAL: ........................................................
NOTE TO PHYSICIAN

Because rapid absorption may occur through lungs if product is aspirated and cause systemic effects, the decision to induce vomiting or not should be made by a physician. Probable mucosal damage may contraindicate the use of gastric lavage. If lavage is performed, endotracheal and/or esophageal control is suggested. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. 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.

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY AND CARCINOGENICITY
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.

Pic-Clor 60
A multi-purpose liquid fumigant for preplant treatment of soil to control plant parasitic nematodes and to help manage certain soil-borne diseases and symphylans in cropland. Not for use in greenhouses or other enclosed areas and not for use in drip or other chemigation applications.

ACTIVE INGREDIENTS:
1,3-Dichloropropene..............................................................39.0%
Chloropicrin...........................................................................59.6%
OTHER INGREDIENTS: ............................................................1.4%
TOTAL: ....................................................................................100.0%

This product weighs 12.1 lbs./gal. @ 68°F (20°C).
Contains 4.7 pounds of 1,3-Dichloropropene and 7.2 pounds of Chloropicrin per gallon.

KEEP OUT OF REACH OF CHILDREN

FIRST AID

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

IF IN EYES:
• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.
• Remove contact lenses, if present, after 5 minutes, and then continue rinsing eyes.
• Call a poison control center or doctor for 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.

• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
• For additional information in case of an emergency, call toll free (1-800-424-9300.)

NOTE TO PHYSICIAN

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

IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY. TAKE PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY.
PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Hazardous liquid and vapor. May cause lung, liver, and kidney damage and respiratory system irritation upon prolonged contact. The use of this product may be hazardous to your health. This product contains 1,3-dichloropropene, which has been determined to cause tumors in laboratory animals. Risks can be reduced by exactly following directions for use, personal protective statements, and by wearing the personal protective equipment specified in this labeling. 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, on skin 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. 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 fumigant. Some materials that are chemical-resistant to 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. Where coversalls are required, they must be loose-fitting and constructed of woven fabrics (e.g., tight knit cotton or cotton/polyester), non-woven fabrics (e.g., tyvek or sonatara), or fabrics containing microporous Teflon.

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.

The PPE required when handling liquid fumigant must be immediately available and must be worn if the handler is to perform any handling activity with a potential for liquid fumigant contact. rendition and seals the soil at the same time, e.g., Yetter applicator) equipped with an organic-vapor (OV, NIOSH approval number prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P, or HE, NIOSH approval number prefix TC-84A).

If sensory irritation (tearing, burning of the eyes or nose) is experienced and handlers remain in the application block or buffer zone, handlers must wear at a 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).

See Directions for Use, Air Monitoring Requirements, Respiratory Protection and Stop Work Triggers, number 3, Handlers Applying the Fumigant with Equipment That Disrupts the Chisel Trace and Seals the Soil with One Implement, e.g., a Yetter applicator (not applicable in California) for when respiratory protection is required.

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

Dispose of Contaminated Clothing: Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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.
• 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.
• Groundwater Advisory: 1,3-dichloropropene is known to move through soil and under certain conditions has the potential to reach groundwater as a result of agricultural use. Application in areas where soils are permeable and groundwater is near the surface could result in groundwater contamination.

PHYSICAL OR CHEMICAL HAZARDS

• Combustible. Do not use or store near heat or open flame.
• Do not mix or allow coming in contact with oxidizing agent. A chemical reaction hazard may occur.
• Handle carefully! Do not drop or let container be impacted by heavy objects. An explosion hazard may occur.

USER SAFETY REQUIREMENTS

1. Never Fumigate Alone: It is imperative to always have an assistant and proper protective equipment in case of accidents.
2. Drivers' Responsibilities: Drivers of application equipment must advise other workers of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the tractor and how to safely work with the tractor and driver while fumigating.
3. Dispose of Contaminated Clothing: 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 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.

Clean and Maintain PPE: 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.

Contact With Mouth: Never sip this product by mouth or use mouth to blow out clogged lines, nozzles, etc.

Heat Illness Avoidance: Use measures to avoid or minimize heat illness while using this product. These measures include gradual adjustment to heat and respirator stress, fans for cooling, cooling vests, frequent breaks to cool down, frequent intake of drinking water, and maintaining weight from day to day.
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 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.

READ ALL DIRECTIONS FOR USE CAREFULLY BEFORE APPLYING. READ THE ENTIRE LABEL. USE ONLY ACCORDING TO LABEL DIRECTIONS. BEFORE BUYING OR USING THIS PRODUCT, READ "WARRANTY DISCLAIMER" AND "LIMITATION OF REMEDIES".

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 and bystanders; (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 factors are not favorable 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, (4) 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., pounds 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 only the rate of fumigant applied to the portion 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 banded 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 in 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; drip lines have been purged (if applicable).

Entry Restricted Period: This period begins at the start of the application and expires depending on the application method and if tarps are used when the area is removed and removed. Entry into the application block during this period is only allowed for appropriately PPE-equipped handlers performing handling tasks. See the Entry Restricted Period and Notification section for additional information.

Buffer Zone: An area established around the perimeter of each application block. The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.

Buffer Zone Period: Begins at the start of the application and lasts for a minimum of 48-hours after the application is complete. Non-handlers must be excluded from the buffer zone during the buffer zone period.

Difficult to Evacuate Sites: Pre-K to Grade 12 schools, state licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons.

Owner: Any person who has a present possessory interest (fee, leasehold, rental, or other) in an agricultural establishment. A person who has both leased such agricultural establishment to another person and granted 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 extends around the roadway, including bicycles.

Product Information
This product is a multi-purpose liquid fumigant for preplant treatment of soil to control nematodes, symphylans, wireworms and certain soil borne diseases in cropland. This product, a soil fumigant and nematicide, may be applied as a preplant soil treatment to control or to aid in reducing the damaging effects of certain soil borne diseases, such as root-knot (caused by Meloidogyne spp.), nematode resistant crop varieties that may aid in reducing crop losses from soil borne pests.

Additional use restrictions listed below apply to the following Florida counties: Broward, Broward, Charlotte, Citrus, Collier, Dade, DeSoto, Glades, Hardee, Hendry, Hernando, Highlands, Hillsborough, Indian River, Lake, Lee, Manatee, Martin, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Sarasota, Seminole, St. Lucie, Sumter, and Volusia. For all other Florida counties, follow the label affixed to the product container for PIC-CLOR 60.

Use PIC-CLOR 60 only on soils that have a relatively shallow hard pan or soil layer restrictive to downward water movement (such as spodic horizon) within six feet of the ground surface and are capable of supporting drainage.

Apply standard chisel injection equipment to inject PIC-CLOR 60 as deep as possible without placing the fumigant directly into the shallow subsurface irrigation water.

PIC-CLOR 60 may not be applied within 100 feet of drinking water wells.
Recontamination Prevention
PIC-CLOR 60 will help manage certain soilborne pests that are present in the soil treatment zone at time of fumigation. It will not control pests that are introduced into soil after fumigation. To avoid reinfection of treated soil do not use irrigation water, transplants, seed pieces, or equipment that could carry soilborne pests from infested land. Avoid contamination from moving infested soil onto treated beds through cultivation, movement of soil from below the treated zone, dumping contaminated soil in treated fields and soil contamination from equipment or crop remains. Clean equipment carefully before entering treated fields. Cultural practices, which provide post-harvest destruction of crop residues and weeds prior to fumigation and practices which prevent weed infestation following fumigation and prior to planting, will help prevent recontamination.

Equipment Clean-Up
Because PIC-CLOR 60 is corrosive under certain conditions, flush all application equipment with fuel oil, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel mixture before storing. Do not use water. Dispose of rinsate by incorporation into field just treated or by other approved means. Never introduce rinsate or unused PIC-CLOR 60 into surface or underground water supplies.

Fertility Interactions
Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when high rates of fertilizer and fumigant are applied to soils that are either cold, wet, acidic, or high in organic matter. To avoid injury to certain crops including red beets, carrots, corn, radishes, cole crops, legumes (beans), lettuce, onions, and sugar beets, fertilize when possible as indicated by soil tests made after fumigation. Use only fertilizers containing nitrates until after the crop is well established and the soil temperature is above 65°F. In mineral soils, do not apply more than 2/3 of the nitrogen requirements from fertilizers containing ammonium salts until the crop is well established and soil temperature is above 65°F. To avoid ammonia injury or nitrate starvation (or both) to crops grown on high organic soils, do not use fertilizers containing ammonium salts. When using high rates of Pic-Clor 60 as required by certain state nursery regulations, liming of highly acid soils before fumigation may stimulate nitrification and reduce the possibility of ammonia toxicity. Certain nursery crops such as citrus seedlings, Comus sp., Crataegus sp., spruce, and vegetable crops such as cauliflower have shown evidence of phosphorus deficiency following fumigation. To avoid this possible effect, additional phosphate fertilizer (foliar applied) is recommended where experience indicates a deficiency may occur.

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.

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

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/canisters of the type specified in the PPE section of this labeling are immediately available for each handler who will wear one (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 or canisters must 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, 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.

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

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.
When breathing zone samples are required,
• Air Monitoring Requirements
  b) must be followed.
  • Air-purifying respirators.)
    Handlers are required to start work in half-face
    sensitivity of at least 0.15 ppm for chloropicrin.
    Matheson-Kitagawa, Draeger, or Sensidyne)
  • Levels, a direct read detection device, such as an
    radius of the handler’s nose and mouth.
  • When using devices to monitor air concentration
    levels, a direct read detection device, such as an
    electronic device or a colorimetric device (e.g.,
    Matheson-Kitagawa, Draeger, or Sensidyne) 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.

1. Handlers Wearing Half-Face Air-Purifying
Respirators
(Handlers are required to start work in half-face
air-purifying respirators.)
The Air Monitoring Requirements section above
must be followed.
• If at any time any handler experiences sensory
irritation (tearing, burning of the eyes or nose)
while wearing a half-face respirator then either:
  o (OPTION 1) 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, or
  o (OPTION 2) Operations must cease and
    handlers not wearing air-purifying respirators
    (full facepiece or gas mask) must leave the
    application block and surrounding buffer zone.

For OPTION 1 [all handlers are wearing air-
purifying respirators (full facepiece or gas mask)]
a) Handlers can resume operations wearing
  half-face air-purifying respirators if all of the
  following conditions exist:
  • Two consecutive chloropicrin breathing zone
    samples taken at the handling site at least
    15 minutes apart must be less than 0.15 ppm, and
  • Handlers do not experience sensory
    irritation, and
  • 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 where
    the sensory irritation was first experienced.

2. Handlers in Enclosed Cabs (Not Applicable
in CA)
(Handlers in enclosed cabs are not required to
start work in half-face air-purifying respirators if
the conditions in the Personal Protective Equipment
(PPE) section are met).
The Air Monitoring Requirements section above
must be followed.
• If at any time a handler experiences sensory
  irritation (tearing, burning of the eyes or nose)
while in the enclosed cab, operations must cease
and handlers must leave the application block and
buffer zone.
  • Operations may resume in the enclosed cab
    provided that:
  o Two consecutive chloropicrin samples
    taken in the breathing zone of the handlers at
    the handling site at least 15 minutes apart
    must be less than 1.5 ppm,
  o Handlers do not experience sensory
    irritation, and
  o The filter has been changed.
  o 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 where
    the sensory irritation was first experienced.

For OPTION 2 (Operations ceased)
a) Handlers can resume operations wearing half-
face air-purifying respirators if all of the
following conditions exist:
  • Two consecutive chloropicrin breathing zone
    samples taken at the handling site at least
    15 minutes apart must be less than 0.15 ppm,
  • Handlers do not experience sensory
    irritation, and
  • 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 where
    the sensory irritation was first experienced.

3. Handlers Applying the Fumigant with
Equipment That Disrupts the Chisel Trace
and Seals the Soil with One Implement, e.g., a
Yetter Applicator (Not Applicable in California)
(Handlers applying the fumigant with equipment
that disrupts the chisel trace and seals the soil
with one implement, e.g., a Yetter Applicator
are not required to start work in half-face air-purifying
respirators).
The Air Monitoring Requirements section above
must be followed.
• If at any time any handler experiences sensory
  irritation (tearing, burning of the eyes or nose) then either:
  o (OPTION 1) 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, or
  o (OPTION 2) Operations must cease and
    handlers not wearing an air-purifying respirator
    (full facepiece or gas mask) must leave the
    application block and surrounding buffer zone.

For OPTION 1 [all handlers wearing air-
purifying respirators (full facepiece or gas mask)]
a) Handlers can remove air-purifying respirators
(full facepiece or gas mask) if all of the
following conditions exist:
  • Two consecutive chloropicrin breathing zone
    samples taken at the handling site at least
    15 minutes apart must be less than 0.15 ppm, and
  • Handlers do not experience sensory
    irritation. The Air Monitoring Requirements section above
must be followed.
  • If at any time a handler experiences sensory
    irritation (tearing, burning of the eyes or nose)
while in the enclosed cab, operations must cease
and handlers must leave the application block and
the surrounding buffer zone.
  • The filter has been changed.
  • 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 where
    the sensory irritation was first experienced.

For OPTION 2 (Operations ceased)
a) Handlers can resume operations if all of the
following conditions exist:
  • Two consecutive chloropicrin breathing zone
    samples taken at the handling site at least
    15 minutes apart must be less than 0.15 ppm, and
  • 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 where
    the sensory irritation was first experienced.

• Handlers can resume operations without
  wearing an air-purifying respirator (full facepiece
  or gas mask) if all of the following conditions exist:
  • Two consecutive chloropicrin breathing zone
    samples taken at the handling site at least
    15 minutes apart must be less than 0.15 ppm, and
  • 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 where
  the sensory irritation was first experienced or
  where sample(s) were greater than or equal
to 1.5 ppm.
• Handlers can resume operations with an
  air-purifying respirator (full facepiece or gas mask)
  if all of the following conditions exist:
  • Two chloropicrin breathing zone samples
    taken at the handling site at least
    15 minutes apart must be less than 1.5 ppm,
  • Handlers do not experience sensory
    irritation, and
  • Cartridges/canisters have been changed.
  • 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 where
    the sensory irritation was first experienced or
    where sample(s) were greater than or equal
to 1.5 ppm.

• Handlers can resume operations with
  an air-purifying respirator (full facepiece or gas mask)
  if all of the following conditions exist:
  • Two chloropicrin breathing zone samples
    taken at the handling site at least
    15 minutes apart must be less than 1.5 ppm,
  • Handlers do not experience sensory
    irritation, and
  • Cartridges/canisters have been changed.
  • 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 where
    the sensory irritation was first experienced or
    where sample(s) were greater than or equal
to 1.5 ppm.
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 anyone — other than a correctly trained and equipped handler 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 untarped 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 tarp 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 completed if tarp is 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.
- If early tarp removal occurs for a broadcast application, the entry restricted period is a minimum of 5 days after the application is complete.
- When listing application information for soil fumigant applications to comply with part 170.122 of the WPS, list the entry restricted period time frame in place of the REI.
- Post Fumigant Treated Area signs at all entrances to the application block no sooner than 24 hours prior to application.

Mandatory Good Agricultural Practices (GAPs)
The following GAPs must be followed during all fumigant applications.

Application Timing
Apply PIC-CLOR 60 at any time of the year when soil conditions permit. Conditions that allow rapid diffusion of the fumigant as a gas through the soil normally give the best results. Because PIC-CLOR 60 does not provide residual control of soil pests, it is used as a preplant application before planting each crop.

Tarps (when tarps are used in PIC-CLOR 60 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.
- Tarp must be installed immediately after the fumigant is applied to the soil.

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:
  - o on the day of, but prior to the start of the application, and
  - o 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 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 late as noontime. 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 smoke from a ground source that flattens out below a ceiling layer and moves laterally in a concentrated cloud.

Soil Preparation
- Soil must be in good tilth and free of large clods. Large clods can prevent effective soil sealing and reduce effectiveness of the application. If subsurface soil compaction layers (hardpans) are present within the intended fumigation treatment zone, a deep tillage to fracture these layers must occur prior to or during the soil fumigant application.
- A written tarp plan that is present must not interfere with the application or the soil seal. Non-decomposed plant material may harbor pests that will not be controlled by fumigation. Crop residue that is present must lie flat to permit the soil to be sealed effectively and limit the natural "chimneys" that may occur in the soil when plant 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 limits the efficacy of the fumigant. Plant residue on the field serves to prevent soil erosion from both wind and water.
- 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.

Soil Temperature
- The minimum soil temperature at the depth of injection is 40°F.
- 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 in any of 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 or 12 inches, whichever is shallower.
Soil Sealing

- **Broadcast Untarped Applications**: Use a disc or similar equipment to uniformly mix the soil to a depth of 3 to 4 inches to eliminate the chisel or plow traces. Following elimination of the chisel trace, the soil surface must be compacted with a cultipacker, ring roller, and roller in combination with tillage equipment. When using equipment similar to the Yetter applicator (chisel trace disruption and soil sealing are done with one implement), additional tillage and compaction are not required.

- **Bedded Applications**: Preformed beds must be sealed by disruption of the chisel trace using press sealers, bed shapers, cultipackers, or by resowing (e.g., resowing, lifting and replacing) the beds immediately following injection. Beds formed at the time of application must be sealed by disrupting the chisel trace using press sealers or bed shapers. When bedding, prebedders such as ripper hippers, hillers, or other prebedders may be used to disrupt the chisel trace and seal the soil. When using equipment similar to the Yetter applicator (chisel trace disruption and soil sealing are done with one implement), additional tillage and compaction are not required. Beds may be formed following the Yetter-type applicator in a normal interval consistent to area production practices.

- **Tarped Applications**: The use of a tarp does not eliminate the need to minimize chisel traces prior to application of the tarp, such as by using a Noble plow or other injection shank that disrupts the chisel traces. When bedding, prebedders such as ripper hippers, hillers, or other prebedders may be used to disrupt the chisel trace and seal the soil. When using equipment similar to the Yetter applicator (chisel trace disruption and soil sealing are done with one implement), additional tillage and compaction are not required. Beds may be formed following the Yetter-type applicator in a normal interval consistent to area production practices.

**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 dries rapidly and must not be considered in this determination.

- Soil moisture must be determined using one of the following methods:
  - The USDA Feel and Appearance Method for testing (see below), or
  - An instrument, such as a tensiometer.

- Available water capacity must be equal to or greater than 50% for shank applications. If there is less than 50% available water capacity 9 inches below the surface, the soil moisture must be adjusted. If irrigation is not available and there is adequate 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 pretreatment 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 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 with defined finger marks, very light soil/water staining on fingers, darkened color will not stick.

- For fine textured soils (clay, clay loam, and silt clay loam), the soil is moist enough (50 to 75% available water capacity) to form a smooth ball with defined finger marks, light soil/water staining on fingers, ribbons between 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 needed. Coarser textured soils can be fumigated under conditions of higher soil moisture than finer textured soils; however, if the soil moisture is too high, fumigant movement will be retarded and effectiveness of the treatment will be reduced. Previous and/or local experience with the soil to be treated or the crop to be planted can often serve as a guide to conditions that will be acceptable. If there is uncertainty in determining the soil moisture content of the area to be treated, a local extension service agent, soil conservationist, or pest control advisor (agriculture consultant) should be consulted for assistance.

**Application Depth**

- **Tarped Bedded and Tarped Broadcast Applications**: The injection point must be a minimum of 6 inches from the nearest final soil/air interface.

- **Untarped Bedded Applications**: The injection point must be a minimum of 12 inches from the nearest final soil/air interface.

- **Untarped Broadcast Applications**: The injection point must be a minimum of 18 inches from the nearest final soil/air interface.

**Application Methods and Equipment**

- **Broadcast Applications**: Use chisel (shank) or coulter (e.g., Yetter 30-inch Avenger), offset wing shank, Noble (sweep) plow, or plow-solé application equipment. For best results when using chisel equipment, use ripper-type, forward-swept shanks. Noble plow equipment is particularly useful for fall fumigation when the soil still contains some standing undecomposed plant material. Subsoiling may be necessary before application. Choose application equipment that allows the deepest application and best soil seal under existing conditions.
  - The fumigant outlet spacing varies with the type of application equipment used.
  - With chisel and coulter equipment, a fumigant shank spacing of 12 to 24 inches is recommended. Do not exceed the maximum shank and outlet spacing of 24 inches. The outlet spacing for this equipment may be up to 1/2 times the application depth but generally should be equal to the application depth and should not exceed the soil-shattering capability of the chisels.
  - With plow-solé equipment, 12-inch outlet spacing is recommended. Do not exceed an outlet spacing of 18 inches.
  - With Noble (sweep) plow equipment, use an outlet spacing of 9 to 12 inches along the sweeps.
  - Broadcast application can be made in the same direction or an angle to the direction of row planting.

- **Bedded Applications (for Row Spacing Greater Than 24 Inches)**: Use chisel equipment to treat a band of soil where the crop is to be planted, i.e., the plant row. When multiple chisels per plant row are used, space the chisels (fumigant outlets) no more than 12 inches apart.
  - With certain deep rooted crops such as potatoes and sugar beets, higher rates may be necessary to ensure adequate treatment of the zone of soil where primary root growth occurs; however in no case should the amount of fumigant applied exceed the maximum rate given in Table 1.
  - To prevent seed germination problems caused by improper seed-to-soil contact or improper planting depth, do not place the seed directly over the furrow left by the applicator (e.g., the applicator has lifted the chisel) after planting. Place the seed about 4 inches to one side of the chisel furrow. When two chisels are used per plant row, plant the seed offset from the chisel trace.

**Prevention of End Row Spillage**

- Do not apply or allow fumigant to spill onto the soil surface. For each injection line either have a check valve installed at the final injection point, or drain/purge the line of any remaining fumigant prior to lifting injection shanks from the ground.

- Do not lift injection shanks from the soil until the shut-off valve has been closed and the fumigant has been depressurized (passively drained) or purged (actively forced out via air compressor) from the system.

- The dispensing system must shut off the feed stream when chisels are raised out of the ground.

- Do not stop or park near any area where dribble from the fumigation equipment may fall into a waterway or drain field.

- A flow shutoff device must be placed as close as possible to the fluid discharge point. This can be a ball, poppet, or diaphragm check valve, or full flow shutoff device such as an electric or pneumatically actuated valve.

- Service any system immediately if continuous drip occurs.

- If mechanical check valves and orifices are used, place the check valve above the orifice. Also, isolate the check valve from upstream pressure by installing a main line shut off or bypass valve prior to the manifold.

- Pipe diameter from check valve to injection point must not exceed 1/4 inches ID National Pipe Standard (NPS). Preferably, use the smallest diameter pipe or tubing possible which achieves the required flow rate.

- Do not use any method of end-row spillage control other than that which is stated on this labeling.

- Alternative end-row spillage devices or methods, such as, but not limited to, micro-bore restricted flow tubing or line purge systems may be used if they provide equal or superior control versus check valves.

**Calibration, Set Up, Repair and Maintenance for Application Rigs**

- Brass, carbon steel, or stainless steel fittings must be used throughout. Polyethylene tubing, polypropylene tubing, Teflon® tubing or Teflon®-lined steel braided tubing must be used for all low pressure lines, drain lines, and compressed gas or air pressure lines. All other tubing must be Teflon®-lined steel braided.

- Galvanized, PVC, nylon, or aluminum pipe fittings must not be used.

- All rigs must include a filter to remove any particulates from the fumigant and for pressurized systems a check valve to prevent backflow of the fumigant into the pressurizing cylinder or the compressed air system.

- Rigs must include a flowmeter or a constant pressure system with orifice plates to ensure the proper amount of fumigant is applied.

- To prevent the backflow of fumigant into the compressed gas cylinder (e.g., nitrogen, other inert gas or compressed air), if used, applicators must:
Before using a fumigation rig for the first time, seal all tubing openings with tape to prevent proper drainage. At the end of the application hose. Place the wand in the soil until all residual connected to the system’s low point via a drain to inject fumigant into the soil, you may clear residual fumigant from compressed gas to inject fumigant into the fumigant lines using an application wand. To hasten dissipation especially if heavy rains or low temperatures occur during the treatment period, till the soil to the depth of fumigant application. Use a knife-like chisel without turning the soil to reduce the possibility of recontaminating the treated soil. Dissipation is usually complete when PIC-CLOR 60 is no longer evident at the application depth. Seed may be used as a bioassay to determine if PIC-CLOR 60 is present in the soil at concentrations sufficient to cause plant injury. Do not plant if PIC-CLOR 60 is detected.

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

- Leave the soil undisturbed and unplanted for at least 7 days after the application of PIC-CLOR 60 is complete. A longer undisturbed interval is required if the soil becomes cold or wet, and for deep-rooted tree, shrub and vine planting sites.
- After fumigation to prevent phytotoxicity, allow the fumigant to dissipate completely before planting the crop. Dissipation is usually complete when PIC-CLOR 60 can no longer be detected at the application depth. Under optimum soil conditions for dissipation, a period of 1 week for each 10 gallons per treated acre is generally required for complete dissipation. If tarp that qualify for either a 40% or a 60% buffer zone credit are used, a longer dissipation period may be needed. Rapidly germinating seed (i.e., lettuce or radish) and/or seed or transplants to be grown may be used as a bioassay to determine if PIC-CLOR 60 is present in the soil at concentrations sufficient to cause plant injury.
- To hasten dissipation especially if heavy rains or low temperatures occur during the treatment period, till the soil to the depth of fumigant application. Use a knife-like chisel without turning the soil to reduce the possibility of recontaminating the treated soil. Dissipation is usually complete when PIC-CLOR 60 is no longer evident at the application depth. Seed may be used as a bioassay to determine if PIC-CLOR 60 is present in the soil at concentrations sufficient to cause plant injury. Do not plant if PIC-CLOR 60 is detected.

Bulk and Non-Bulk Containers

- PIC-CLOR 60 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with liquid PIC-CLOR 60.
- All hoses, piping, and tanks used in connection with PIC-CLOR 60 shall be of the type appropriate for use under the pressure and vacuum conditions to be encountered.
- Do not use containers, pumps or other transfer equipment made of aluminum, magnesium or their alloys, as under certain conditions 1,3-dichloropropene may be severely corrosive to such metals.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of PIC-CLOR 60 when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move PIC-CLOR 60 beyond a pump must not exceed the manufacturer’s maximum pressure specification.

### TABLE 1

<table>
<thead>
<tr>
<th>PIC-CLOR 60 PRODUCT APPLICATION RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Vegetable Crops, Field Crops, Fruit and Nut Crops, Nursery Crops&lt;sup&gt;1,2,3,4,5&lt;/sup&gt;</td>
</tr>
<tr>
<td>48.6</td>
</tr>
<tr>
<td>Maximum Application Rates&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>Gallons/treated acre</td>
</tr>
<tr>
<td>24.3</td>
</tr>
</tbody>
</table>

<sup>4</sup>Do not exceed specified maximum application rates in Table 1 or in the footnotes below.

<sup>1</sup>Row treatment is not recommended for potatoes in irrigated areas of western and northwestern states.

<sup>2</sup>For cyst-forming nematodes, increase dosage to 39 gallons product per treated acre for all applications except untarped shank broadcast.

<sup>3</sup>For most soils containing less than 30% organic matter use 39 gallons product per treated acre for all applications except untarped shank broadcast.

<sup>4</sup>For mint apply 48.6 gallons product per treated acre for all applications except untarped shank broadcast.

<sup>5</sup>For burrowing nematode in citrus, inject on 18-inch centers, 12 inches deep. Keep free of plants susceptible to burrowing nematodes for 2 years before replanting citrus.

Note: To control symphytans (garden centipedes), use 3.85 to 4.86 gallons of product per treated acre for all applications except untarped shank broadcast, or 24.3 gallons of product per treated acre for untarped shank broadcast applications. Apply during late Summer or early Fall when the soil is warm.

To control wireworms, use dosage recommended for nematodes. For wireworm control in soils to be planted to potatoes in Idaho, Nevada, Oregon, Utah, and Washington, refer to footnote 1 above.
Calculating the Broadcast Equivalent Application Rate

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

- Pounds (or gallons) 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:

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

- 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 \((\text{total area of strips or beds} + \text{row spacing})/\text{application block size}\). 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.
- 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) = \frac{\text{strip or bed bottom width (inches)}}{\text{center-to-center row spacing (inches)}} \times \frac{\text{area of strips or beds + row spacing}}{\text{application block size}} \times \frac{\text{pounds product/ treated acre}}{\text{applied in the bed}}

\[
= \frac{30\text{-inch width beds}}{60\text{-inch row spacing}} \times \frac{9.75 \text{ acres}}{10 \text{ acres}} \times \frac{200 \text{ pounds product/ treated acre}}{10 \text{ acres}}
\]

\[
= 97.5 \text{ pounds product/ acre}
\]
Buffer Zone Requirements

A buffer zone must be established for every fumigant application. The following describes the buffer zone requirements: 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.
• 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).
  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.
• The buffer zone period begins at the start of the application and lasts for a minimum of 48 hours after the application is complete.

Buffer Zone Proximity

Before the start of application, the certified applicator must determine whether their buffer zone will overlap any chloroprocyn buffer zone(s).

To reduce the potential for off-site movement from multiple fumigated fields, buffer zones from multiple chloroprocyn 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 have 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 residential 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 chloroprocyn 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 roadways and rights of way UNLESS:
  1. The roadway is not occupied during the buffer zone period, and
  2. Entry by non-handlers is prohibited during the buffer zone period.

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.)

• For all other publicly owned and/or operated areas such as parks, sidewalks, permanent walking paths, playgrounds, and athletic fields, buffer zones must not include these areas UNLESS:
  1. The area is not occupied during the buffer zone period, and
  2. The area is not occupied during the buffer zone period.

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).

If the buffer zone is 50 feet, and the application qualifies for a buffer zone credit since the soil organic content is 1.5% and the clay content is greater than 27%, then the buffer zone can be reduced by 10% (10% organic content, 1.5% clay content credit), i.e., reduced by 10 feet based on the following calculation:

\[
\text{Buffer Zone Reduction} = 50 \times 10\% = 45 \text{ feet}
\]

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.
  o Some examples of points of entry include, but are not limited to, roadways, sidewalks, paths, and bike trails.
  o 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.
  o 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:
  o The printed side of the sign must face away from the application block toward areas from which people could approach.
  o Signs must remain legible during the entire posting period and must meet the general standards outlined in the WPS for sign size, text size, and legibility (see 40 CFR §170.120).
  o Signs must be posted no sooner than 24 hours prior to the start of the application and remain posted until the buffer zone period has expired.
  o Signs must be removed within 3 days after the end of the buffer zone period.
  o Buffer Zone signs which meet the criteria above will be provided at points of sale for applicators to use. Templates may be downloaded from http://www.epa.gov/pesticides/registration/soldfumigants/index.htm.
  o The Buffer Zone signs must contain the following information:
    o The ‘Do Not Walk’ symbol
    o DO NOT ENTER/NO ENTRE,
    o Chloropicrin/1,3-Dichloropropene PIC-CLOR 60 Fumigant BUFFER ZONE,
    o 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 where the buffer zone is greater than ½ mile (2,640 ft), then the application is prohibited.

When posting, the certified applicator must provide written agreement, prior to the start of the application, that they, their employees, and other persons will stay out of the buffer zone during the entire buffer zone period.

Buffer Zone Credits

The buffer zone distances for PIC-CLOR 60 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 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.
- 10% reduction in buffer zone distance, IF the organic content of the soil in the application block is > 1% - 2%; a 20% reduction in buffer zone distance, IF the organic content of the soil in the application block is > 2% - 3%; and a 30% reduction in the buffer zone distance, IF the organic content of the soil in the application block is > 3%.
- 10% reduction in 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%.
- 10% reduction in buffer zone distance if the Symmetry™ application system is used with a tarp that qualifies for a 40% credit and the application rate is ≤ 100 pounds per acre treated area. The 10% credit for the Symmetry™ application system is added to the buffer zone credit for the tarp. For example if the Symmetry™ application system is used with a tarp that qualifies for a 40% credit the total credit for the tarp and the application system would be 50%.

Examples of Buffer Zone Calculations with Credits Applied

If the buffer zone is 50 feet, and the application qualifies for a buffer zone credit since the soil organic content is 1.5% and the clay content is greater than 27%, then the buffer zone can be reduced by 10%, i.e., reduced by 5 feet based on the following calculation: 50 feet = (50 feet x 10%) = 45 feet. If the buffer zone is 50 feet, and the application qualifies for two buffer zone credits since the soil organic content is 1.5% and the clay content is greater than 27%, then the buffer zone can be reduced by 20%, i.e., reduced by 10 feet based on the following calculation: 50 feet - (50 feet x 20%) = 40 feet.
<table>
<thead>
<tr>
<th>Application Block Size (acres)</th>
<th>Strip Tarp Buffer Zone Distances in Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 4 5 6 7 8 9 10 15 20 25 30 35 40 50 60 70 80 90 100 110 120 130 140 150 160</td>
<td>1 2 3 4 5 6 7 8 9 10 15 20 25 30 35 40 50 60 70 80 90 100 110 120 130 140 150 160</td>
</tr>
<tr>
<td>294 25 40 55 70 85 101 117 133 149 165 215 265 313 360 403 445 510 575 640 705 770 835 900 965 1045 1126 1206 1287</td>
<td>302 25 41 57 72 87 104 120 137 153 170 211 271 322 370 415 457 525 591 658 725 792 859 926 993 1075 1158 1241 1323</td>
</tr>
<tr>
<td>311 25 42 58 74 90 107 124 141 158 174 227 277 321 368 415 457 525 591 658 725 792 859 926 993 1075 1158 1241 1323</td>
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<td>319 25 43 60 76 92 110 127 144 162 179 233 288 340 391 438 483 534 624 695 765 836 907 977 1048 1122 1197 1273 1350</td>
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<td>412 25 56 77 98 119 141 164 186 210 234 307 380 443 510 577 654 731 808 885 972 1060 1148 1236 1324 1412 1504 1594 1684</td>
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<tr>
<td>Application Block Size (acres)</td>
<td>126</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----</td>
</tr>
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</table>
Table 4. Bed Untarp (both preformed beds and beds listed/disk hilled at the time of application) Buffer Zone Distances in Feet

<table>
<thead>
<tr>
<th>Application Block Size (acres)</th>
<th>Buffer Zone Distances in Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>76</td>
<td>25</td>
</tr>
</tbody>
</table>

If after applying applicable credits the buffer distances are still greater than ½ mile (2,640 feet), then the application is prohibited.

Buffer for Compacted Untarp Beds (beds listed/disk hilled and compacted at the time of application in one pass) is 25 feet.
Table 5. Broadcast Tarp Buffer Zone Distances in Feet

| Application Block Size (Acres) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 |
| 311                           | 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30| 30 |
| 336                           | 34| 43| 52| 61| 76| 92| 107| 123| 139| 173| 207| 240| 272| 313| 354| 399| 444| 488| 531| 571| 611| 651| 686| 744| 801| 858| 915 |
| 344                           | 36| 46| 57| 68| 80| 109| 126| 143| 160| 193| 230| 251| 284| 321| 368| 415| 462| 519| 576| 633| 690| 747| 804| 861| 918| 975 |932 |

Note: Distances in feet are calculated for different application block sizes, varying from 15 to 160 acres. Each row represents a specific application block size, and the distances are given for various buffer zone sizes (15 to 25 feet) with increments of 5 feet up to 400 feet.
<table>
<thead>
<tr>
<th>Application Block Size (Acres)</th>
<th>Broadcast Application Rate (lbs/Prod/Acre)</th>
</tr>
</thead>
</table>


Table 6. Broadcast Untarp Buffer Distances in Feet

If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), then the application is prohibited.
Table 7. Broadcast Deep (18 inches) Untarp Buffer Zone Distances in Feet

| Application Block Size (Acres) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 |
|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
Restrictions for Difficult to Evacuate Sites

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

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

Emergency Preparedness and Response Measures:

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

Triggers for Emergency Preparedness and Response Measures

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

Fumigant Site Monitoring

NOTE: Fumigant Site Monitoring is ONLY required if the Emergency Preparedness and Response Measures are triggered AND directions from the Fumigant Site Monitoring 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.
  - Monitoring 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.

Handlers performing fumigant site monitoring outside of the buffer zone are not required to wear an air-purifying respirator.

Response Information for Neighbors

NOTE: Response Information for Neighbors is ONLY required 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 applicator 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 of exposure to 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 residences 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/fumigantstatedeclaration for a list of states and 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,
- Applicator and property owner contact information, and
- 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 telephones,
- 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 of the buffer zone, and/or
  - there are equipment/tarp/seat failure or complaints, or other emergencies.

Site-Specific Fumigation Management Plan (FMP)

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

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

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

Each site specific FMP must contain the following elements:
- Certified Applicator Supervising the Application
  - Name,
  - Phone number,
- Pesticide applicator license and/or certificate number,
- Specify if commercial or private applicator,
- Employer name,
- Employer address, and
- Date and location of completing EPA approved soil fumigant training program.

General site information
- Application block location (e.g., county, township-range-section quadrant), address, or global positioning system (GPS) coordinates
- Verify if 1,3-dichloropropene has been used on this application block in the previous two years
- Confirm that there will be no occupied structures within 100 feet of the application block during the 7 consecutive day period after the application is complete
- 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
  - roads
  - rights-of-ways
  - sidewalks
  - permanent walking paths
  - bus stops
  - wells
  - karst topography
  - 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.
- Tarp Plan (if tarp is used)
  - Schedule for checking tarps for damage, tears, and other problems.
  - Minimum size of damage that will be repaired.
  - Factors used to determine when tarp repair will be conducted.
  - Equipment/methods used to perforate tarps.
  - Target dates for perforating tarps, and
  - Target dates for removing tarps.
- Soil 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,
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
- Symmetry™ application system
- 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 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 (if applicable)
- Fumigant site monitoring (if applicable):
  - When and where it will be conducted
  - Response information for neighbors (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 be available for viewing by handlers involved in the application. If buffer zones extend onto areas not under the control of the owner, attach the written agreement and keep it with the FMP.

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 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 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
- 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 tarp were perforated and/or removed early.
- Complained details (if applicable):
  - Person filing complaint (e.g., on-site handler, person off-site).
  - Name, address, and phone number of person filing complaint, 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., implement emergency response plan, cease operations, continue operations with air-purifying respirators).
    - When using a direct read detection device:
      - Sample date(s), time(s), location(s), and concentration(s).
      - Handler task/activity monitored (if applicable), and
      - Reporting rotation (e.g., cease operations, continue operations with air-purifying respirators).

Fumigant Treated Area and Buffer Zone Signs:
- Dates of posting and removal.

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 less than 0.15 ppm.
Storage and Disposal

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

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

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide and rinsates 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. Because 1,3-dichloropropene is corrosive under certain conditions, flush all application equipment with fuel oil, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel oil mixture before storing. Do not use water. Dispose of rinsate by applicable Federal, State and local regulations. Never introduce rinsate or unused product into surface or underground water supplies.

Container Handling: Persons moving, handling, or opening containers must wear the personal protective equipment specified in the Personal Protective Equipment (PPE) section of this labeling. Open container only in a well-ventilated area. Remove the valve protection bonnet and safety cap only when fumigant is about to be removed from the cylinder. The safety cap and valve protection bonnet must be replaced when the cylinder is not in use. Do not subject cylinders to rough handling, or to abnormal mechanical shock such as dropping, bumping, dragging, or sliding. Do not use ropes, slings, hooks, toongs, and similar handling devices for unloading cylinders. To transport heavier cylinders, use a hand truck, fork truck, or similar device to which cylinders can be firmly secured.

Refillable Container: Only the registrant is authorized to refill cylinders. Refill this container 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.

Return of Containers: Cylinders are the property of the manufacturer or distributor and must be returned promptly by collect freight. Do not ship cylinders without safety caps or valve protection bonnets.

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 Disclaimer

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use: It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.); abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer. Limitation of Remedies: To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at the company’s election, one of the following: (1) Refund of purchase price paid by buyer or user for product bought, or (2) Replacement of amount of product used. To the extent consistent with applicable law, the company shall not be liable for consequential or incidental damages or losses. The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of the company or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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