# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS:

DANGER

THIS FUMIGANT IS A HIGHLY HAZARDOUS MATERIAL AND MUST BE HANDLED WITH CARE ONLY BY THOSE INDIVIDUALS EXPERIENCED WITH ITS PROPER USE. CONSULT YOUR DEALER REPRESENTATIVE OR THE DISTRIBUTOR FOR CORRECT PROCEDURE BEFORE USING. READ AND FOLLOW ALL LABEL DIRECTIONS AND PRODUCT LITERATURE SPECIFIC TO YOUR REQUIREMENTS.

POISONOUS LIQUID AND VAPOR. INHALATION MAY BE FATAL. CHLOROPICRIN IS READILY IDENTIFIABLE BY SMELL. EXPOSURE TO VERY LOW CONCENTRATIONS OF VAPOR WILL CAUSE IRRITATION OF EYES, NOSE, AND THROAT. CONTINUED EXPOSURES AFTER IRRITATION IS EVIDENT, OR HIGHER CONCENTRATIONS, MAY CAUSE PAINFUL IRRITATION TO EYES OR TEMPORARY BLINDNESS. LIQUID WILL CAUSE CHEMICAL BURNS TO SKIN OR EYES. DO NOT GET ON SKIN, IN EYES, OR ON CLOTHING. HARMFUL OR FATAL IF SWALLOWED.

CHLOROPICRIN FUMIGANT HAS THE CAPACITY TO CAUSE MARKED IRRITATION TO THE UPPER RESPIRATORY TRACT, AND IS A STRONG LACHRYMATOR (TEAR PRODUCING EYE IRRITANT). LOW CONCENTRATIONS, BELOW THOSE NECESSARY TO CAUSE SERIOUS SYSTEMIC INTOXICATION, ARE CAPABLE OF CAUSING SEVERELY PAINFUL EYE IRRITATION, HENCE WILL NOT BE VOLUNTARILY TOLERATED. HOWEVER, THE EFFECT MAY BE SO POWERFUL THAT A PERSON MAY BECOME TEMPORARILY BLINDED AND PANIC-STRICKEN AND THAT IN TURN MAY LEAD TO ACCIDENTS.

#### AIR CONCENTRATION LEVEL

The acceptable air concentration level for persons exposed to chloropicrin is **0.1 ppm** (0.7 mg/m³). If the air concentration level exceeds 0.1 ppm, an air-purifying respirator must be worn. If the air concentration level exceeds 4 ppm, an air supplying respirator must be worn. The air concentration level is measured by a direct reading detection device, such as a Sensidyne pump or a Matheson-Kitaqawa.

#### PERSONAL PROTECTIVE EQUIPMENT

#### Applicators and other handlers must wear:

- Loose-fitting or well ventilated long-sleeved shirt and long pants, or equivalent, e.g., coveralls
- Shoes and socks
- Full-face shield or safety glasses with brow and temple shields
- When the air concentration level is above 0.1 ppm and a respirator is required, protect the eyes by wearing a full-face respirator.
- No respirator is required, if the air concentration level of chloropicrin in the working area is measured to be 0.1 ppm or less.

#### A respirator is required under the following circumstances:

- If the air concentration level exceeds 0.1 ppm at any time, applicators and other handlers must wear a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P, or HE prefilter.
   If the air concentration level exceeds 4 ppm at any time, applicators and other handlers must wear (a)
- If the air concentration level exceeds 4 ppm at any time, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TC-19C) OR (b) a self-contained breathing apparatus (SCBA) (MSHA/NIOSH approval number prefix TC-13F).

#### **WORK SAFETY REQUIREMENTS**

- Do not wear jewelry, gloves, goggles, tight clothing, rubber protective clothing or rubber boots when handling.
   Chloropicrin is heavier than air and can be trapped inside clothing and cause skin injury.
- Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product.
   Do not reuse them.
- Clean Personal Protective Equipment (PPE) after each day's use. Immediately after contamination remove outer clothing, shoes, and socks and do not reuse until thoroughly aerated or ventilated. Keep such clothing and shoes outdoors until thoroughly aerated. Then follow the PPE manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE and work clothing separately from other laundry.
- Follow PPE manufacturer's instructions for cleaning/maintaining protective eyewear, face shields and respirators.

#### USER SAFETY RECOMMENDATIONS

#### Users should:

- 1) Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 2) Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3) Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.
- 4) Supply your physician with information on Chloropicrin, which is available from your Dealer Representative or the Distributor.

#### RESTRICTED USE PESTICIDE

#### **DUE TO ACUTE TOXICITY**

For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

### Pic Plus Fumigant

ACTIVE INGREDIENT: Chloropicrin	. 85.5%
OTHER INGREDIENTS*:	14.5%
TOTAL:	100.0%

\* Contains petroleum distillates

This product weighs 12.0 pounds per gallon.

#### KEEP OUT OF REACH OF CHILDREN





**PELIGRO** 

### **POISON**

PELIGRO: Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

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

#### **FIRST AID**

IF INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>

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

#### NOTE TO PHYSICIAN

- Chloropicrin is a volatile liquid that is the active ingredient in tear gas. As a gas it is a powerful lachrymator. Early symptoms of overexposure are lachrymation, respiratory distress, and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.
- Contains petroleum distillate--vomiting may cause aspiration pneumonia.

#### **EMERGENCY PHONE NUMBER**

■ Chemtrec: 1-800-424-9300

See side panels for additional precautionary statements.

#### **ENVIRONMENTAL HAZARD**

This fumigant is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

#### CHEMICAL HAZARD

Do not use containers or application equipment made of magnesium, aluminum, or their alloys, as under certain conditions this fumigant may be severely corrosive to such metals. Do not permit water to be used to clean the fumigant pressure system as corrosion will result. Diesel oil is satisfactory for this purpose.

#### DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN ANY 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 PROTECTED HANDLERS MAY BE IN THE AREA DURING APPLICATION. FOR ANY REQUIREMENTS SPECIFIC TO YOUR STATE OR TRIBE, CONSULT THE AGENCY RESPONSIBLE FOR PESTICIDE REGULATION.

#### **PLACARDING OF FUMIGATED AREAS**

The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing:

• skull and crossbones symbol

- "DANGER/PELIGRO"
- "Area under fumigation, DO NOT ENTER/NO ENTRE"
- "Chloropicrin Fumigant in use"
- · the date and time of fumigation
- name, address, and telephone number of the applicator

DO NOT ALLOW ENTRY BY UNPROTECTED PERSONS INTO THE FUMIGATED AREA UNTIL THE SIGNS ARE REMOVED. SUCH SIGNS MUST ONLY BE REMOVED WHEN THE AIR CONCENTRATION LEVEL OF CHLOROPICRIN IS MEASURED TO BE 0.1 PPM OR LESS. SIGNS MUST REMAIN LEGIBLE DURING THE ENTIRE POSTING PERIOD. ONLY A CERTIFIED APPLICATOR (OR SOMEONE UNDER HIS/HER SUPERVISION) MAY REMOVE WARNING SIGNS AT ENTRANCES TO FUMIGATED STRUCTURES.

#### PRECAUTIONS TO FOLLOW

PRIOR TO FUMIGATION: (1) Before using fumigant, read and follow all directions on the label and in the product literature. (2) Comply with all local regulations and ordinances. Obtain an application permit from Agricultural Regulatory agencies as required. (3) It is advisable to supply your physician with information on chloropicrin, which is available from the company. (4) Obtain medical assistance at once in case of illness after exposure, and do not allow conditions which could accidentally cause further exposure until recovery is complete. (5) Never fumigate alone. It is imperative to always have an assistant and proper protection equipment, as listed below, to aid in case of accidents. (6) Drivers of application equipment must advise other workers of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the tractor and how to work with the tractor and driver while fumigating. (7) Handle this fumigant in the open, when possible, with the operator "upwind" from the container where there is good ventilation. (8) Check the fumigant pressure system, when used, for leaks before beginning application. (9) A gas mask must be carried in each service vehicle. (10) Do not spill. If liquid fumigant splashes or spills on shoes or clothing, remove them at once as fumes from the contaminated area will be an intolerable source of irritation. If the liquid contacts skin where rings or bandages are worn, remove them, and wash the exposed skin with soap and water. Air expose shoes or clothing outside and do not wear until free of all traces of fumigant. (11) Always have adequate clean water available to wash the skin.

DURING FIELD FUMIGATION: (1) This fumigant should not be applied when there is an atmospheric inversion, since uncomfortable concentrations of chloropicrin may drift to nearby areas. (2) Do not lift injection shanks to turn at end of a pass until the fumigant has drained from the system following closure of the shutoff valve. (3) Trash pulled by the shanks to the ends of the field when fumigating must be covered by lifting the shanks, then covering the trash with polyethylene film before making the turn for the next pass. (4) In case of the rupture of a hose or fitting while applying the fumigant, immediately stop the tractor and motor. Get off the tractor and get to a place where the problem can be observed without exposure to the fumes. Approach from upwind, with respiratory protection if required and make necessary repairs. (5) When changing the cylinders, be certain they are turned off and the fumigant system is not under pressure.

**AFTER FIELD FUMIGATION:** Do not feed domestic animals on crop residues unless an EPA tolerance exists for such use. Examples are, but not limited to, seeded or volunteer cover crops growing on soil which has been fumigated as a preplant treatment for a registered crop use.

**NOTE CAREFULLY:** Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when heavy rates of fertilizer and fumigant are applied to soils that are either cold, wet, acid, or high in organic matter. To avoid injury to plant roots, fertilize as indicated by soil tests made after fumigation. To avoid ammonia injury and/or nitrate starvation to crops, avoid using fertilizers containing ammonia salts and use only fertilizers containing nitrates until after the crop is well established and the soil temperature is about 65 °F. Liming highly acid soils before fumigation stimulates nitrification and reduces the possibility of ammonia toxicity.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 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. It also contains specific instructions and exceptions pertaining to the statements in this labeling about personal protective equipment, restricted-entry intervals, and notification to workers. 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.

ENTRY RESTRICTIONS: Greenhouse Soil Fumigation: Entry (including early entry that would otherwise be permitted under the WPS) by any person—other than a correctly trained and equipped handler who is performing a handling task permitted by the WPS— is PROHIBITED in the entire greenhouse (entire enclosed building/ structure) from the start of application until 48 hours after application AND until the air concentration level of chloropicrin in the working area is measured to be 0.1 ppm or less. Until the aeration of the soil is complete (usually 10-14 days), non-handlers are permitted in the greenhouse ONLY while the air concentration level of chloropicrin in the working area remains 0.1 ppm or less. If tarps are used for the application, non-handler entry is prohibited during tarp removal and until the air level is measured to be 0.1 ppm or less. Outdoor Soil Fumigation: Entry (including early entry that would otherwise be permitted under the WPS) by any person—other than a correctly trained and equipped handler who is performing a handling task permitted on this labeling—is PROHIBITED from the start of application until 48 hours after application. In addition, if tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

NOTIFICATION: Notify workers of the application by warning them orally and by posting fumigant warning signs, as described in the "Placarding of Fumigated Areas" section of this labeling. Post the fumigant warning sign instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, size, and timing of posting and removal. Greenhouses—Soil Fumigation: Post the fumigant warning signs outside all entrances to the entire greenhouse (entire enclosed building/structure). Outdoor Soil Fumigation: Post the fumigant warning signs at entrances to treated areas.

PPE FOR ENTRY DURING ENTRY-RESTRICTED PERIOD: PPE for entry that is permitted by this labeling is

listed in the "Hazards to Humans and Domestic Animals" section of this labeling.

#### **GENERAL INSTRUCTIONS**

THIS FUMIGANT IS A HIGHLY HAZARDOUS MATERIAL AND SHOULD BE USED ONLY BY PERSONS TRAINED IN ITS PROPER USE. BEFORE USING, READ AND FOLLOW ALL LABEL PRECAUTIONS AND DIRECTIONS. ALL PERSONS WORKING WITH THIS FUMIGANT SHOULD BE TRAINED IN THE HAZARDS, THE USE OF REQUIRED RESPIRATOR EQUIPMENT, DETECTOR DEVICES, EMERGENCY PROCEDURES, AND THE PROPER USE OF THE FUMIGANT.

#### SOIL FUMIGATION

- PIC PLUS is a preplant fumigant for the control of soil-borne pests, such as wireworms and nematodes, and
  diseases caused by certain species of *Phythium*, *Phytophthora*, *Fusarium*, and *Verticillium*. It is to be used in soil
  to be planted to the crops listed below. Prior to application, the soil should be in condition for planting and with
  sufficient moisture to support seed germination.
- Keep pets, livestock, and other domestic animals out of the treated area during application, during the exposure
  period as specified for applications in Directions for Use, and during removal of tarpaulin, if used.

#### **BROADCAST APPLICATION**

- Apply PIC PLUS by means of chisels spaced no more than 12 inches apart and at a depth of 8 inches below soil
- To seal in fumigant after application, drag or cultipack immediately behind chisels, or wet down treated area to a depth of 1 inch, or cover treated area with a plastic tarpaulin. If plastic tarpaulin is used, it should remain for a minimum of 48 hours.
- Do not apply to areas adjacent to fields where valuable crops are growing nor adjacent to buildings inhabited by humans or livestock.
- Fumigation of small volumes of soil or mushroom casing soil may be made by injecting chloropicrin 6 8 inches
  deep in a grid pattern not to exceed 12 inch spacing.

## RECOMMENDED DOSAGES PREPLANT SOIL FUMIGATION<sup>1</sup>

LAND TO BE PLANTED TO	POUNDS PER ACE
Tobacco	50 - 250
Floral Crops, Nursery Crops	500
Plant & Seed Beds	300 - 500
Eggplant, Cucumbers, Melons, Tomatoes	300 - 500
Sweet Potatoes, Yams	150 - 400
Onions	200 - 400
Strawberries	150 - 500
All Other Crops <sup>2</sup>	150 - 500
Mushrooms Casing Soil <sup>3</sup>	5 -10 cc/cu.ft.
Potting Soil	3-4 cc/sq.ft.
Seed Beds	3-6 cc/sq.ft.

 $^1\mbox{lf}$  treated area is covered with a plastic tarpaulin immediately after application, dosage may be reduced by 33%.

- <sup>2</sup> Not to be used with aquatic crops or for forestry uses.
- <sup>3</sup> In the case of Mushroom soil, seal with water plus plastic or wet newspapers.

#### NOTE:

**ROW OR BED APPLICATIONS** may be made at the broadcast rates but the amount used will be proportionately less per acre depending on the row spacing and width of treatment in the row or bed.

**EXPOSURE AND AERATION:** After application, leave the soil undisturbed for 10 to 14 days. Wet soil retards diffusion of the furnigant, thus requiring a longer exposure period. At the end of the exposure period, aerate the soil by plowing or deep cultivation. If heavy rains accompanied by low temperatures occur during the exposure period, working the soil several times is essential for thorough aeration. Aeration is usually complete when the odor of the furnigant is no longer evident.

#### STORAGE AND DISPOSAL

STORAGE: Store in a cool, dry, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage or disposal. Persons moving, handling, or opening containers must wear the personal protective equipment (including prescribed respirator) specified in the Hazards to Humans section of this labeling. Open container only in a well-ventilated area.

RETURN CYLINDERS TO:

Hendrix and Dail, Inc. 1101 Industrial Boulevard

Greenville, NC 27834

Cylinders are the property of Hendrix and Dail, Inc. and should be returned promptly by collect auto freight. (1)

When a cylinder is empty, the valve should be closed, the safety cap screwed onto the valve outlet, and the protection bonnet replaced prior to its return to the shipper. (2) Do not ship cylinders without safety caps or valve protection bonnets. (3) When a cylinder is partially full and there is no further requirement for the product, contact the company for return instructions. (4) Containers should never be refilled by the consumer or used for any other product or purpose.

SHIPPING: This fumigant is classified in the U.S. Department of Transportation Hazardous Materials Regulations as TOXIC BY INHALATION LIQUID, N.O.S. (Chloropicrin), 6.1, UN 3382, PG I, Zone B, and no exemptions from specifications, packaging, marking, or labeling are allowed. Describe empty cylinders as having last contained a Toxic by inhalation liquid. Do not ship with foods, feeds, or clothing. HANDLING: (1) The valve protection bonnet and safety cap should be removed 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. (2) Cylinders should never be subjected to rough handling or to abnormal mechanical shock such as dropping, bumping, dragging, or sliding. (3) Ropes, slings, hooks, tongs, and similar handling devices should not be used for unloading cylinders. (4) A suitable hand truck, fork truck, or similar device to which the cylinders can be firmly secured should be used for transporting the heavier cylinders.

SPILL AND LEAK PROCEDURES: Evacuate everyone from the immediate area of the spill or leak. For entry

into affected area to correct problem, wear the personal protective equipment (including prescribed respirator) specified in the Hazards to Humans 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 furnigant to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Such material should be disposed of on site or at an approved disposal facility. Only correctly trained and PPE-equipped handlers are permitted to perform such cleanup. Do not permit entry into the spill or leak area by any other person until the concentration of chloropicrin is measured to be 0.1 ppm or less.

**DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate its 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.

#### **WARRANTY**

NOTICE: SELLER WARRANTS THAT THIS PRODUCT CONFORMS TO ITS CHEMICAL DESCRIPTION AND IS REASONABLY FIT FOR THE PURPOSES STATED ON THE LABEL WHEN USED IN ACCORDANCE WITH DIRECTIONS UNDER NORMAL CONDITIONS OF USE, BUT NEITHER THIS WARRANTY NOR ANY OTHER WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXPRESS OR IMPLIED, EXTENDS TO THE USE OF THIS PRODUCT CONTRARY TO LABEL INSTRUCTIONS, OR UNDER ABNORMAL CONDITIONS, OR UNDER CONDITIONS NOT REASONABLY FORESEEABLE TO SELLER, AND BUYER ASSUMES THE RISK OF ANY SUCH USE.

April 12, 2005



Hendrix and Dail, Inc. 1101 Industrial Boulevard Greenville, NC 27834 (252) 758-4263

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