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8536-2

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Soil Chemicals Corporation  
P.O. Box 782  
Hollister, CA 95024

26 MAY 1993

Attn: Tom Duafala, Ph.D.

Subject: Chloropicrin 100  
EPA Registration No. 8536-2  
Your Submission of November 30, 1993

The submission noted above, a revised product label entailing changes to the application instructions involving the use of tarpaulins has been reviewed. Please note the following.

1. The new instructions "If plastic tarpaulin is used, it should remain for a minimum of 48 hours" and the movement of the tarpaulin from the Precautionary Statement section to the Application Statement section is acceptable.

2. The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments listed below. A stamped copy is enclosed for your records. Five copies of the finished printed labeling, including these comments must be submitted before releasing the product for shipment bearing the new labels.

a. Revise the Environmental Hazards statement to read as per PR Notice 93-16 (published July 29, 1993): "This product 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 in to 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."

b. Please note that continued acceptance of wood or timber preservative uses is dependent on this use pattern being supported in the reregistration of this active ingredient.

CONCURRENCES

SYMBOL	7507							
SURNAME	Tom Duafala							
DATE	26 MAY 1993							

**BEST AVAILABLE COPY**

If you should have any questions concerning this letter, you may call Robert Travaglino on (703) 305-6909.

Sincerely,



Ruth G. Douglas  
Product Manager (32)  
Antimicrobial Program Branch  
Registration Division (7505C)

**PRECAUTIONARY STATEMENTS**

**HAZARD TO HUMANS:  
AND DOMESTIC ANIMALS:**

**D A N G E R**

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 SOIL CHEMICALS CORPORATION FOR CORRECT PROCEDURE BEFORE USING. READ AND FOLLOW ALL LABEL DIRECTIONS AND THE PRODUCT LITERATURE SPECIFIC TO YOUR PARTICULAR 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-STRIKEN AND THAT IN TURN MAY LEAD TO ACCIDENTS.

**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 Soil Chemicals Corp.
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.

**RESPIRATORY EXPOSURE:**

RESPIRATORY PROTECTION: DO NOT BREATHE FUMES. A GAS MASK MUST BE CARRIED IN EACH SERVICE VEHICLE.

9. If the concentration of chloropicrin in the working area, as measured by direct reading devices (such as a Matheson-Kitagawa gas detector tube), does not exceed 0.1 ppm (0.67 mg/cu.m) no respiratory protection is required. If this concentration is exceeded at any time, all persons in the fumigation area must wear a NIOSH/MSHA approved air purifying respirator approved for organic vapors, self-contained breathing apparatus (SCBA), or a combination air supplied/SCBA respirator.

**EYE EXPOSURE:**

10. Wear safety glasses when working with this fumigant. Exposure of eyes to splashing liquid fumigant may render an individual helpless.
11. In case of eye exposure, flush eyes with clean water.

**SKIN EXPOSURE:**

WEAR FULL-BODY CLOTHING THAT IS CLEANED AFTER EACH WEARING OR DISPOSABLE PROTECTIVE CLOTHING. WHEN HANDLING LIQUID, USE GLOVES AND AN APRON THAT ARE RESISTANT TO CHLOROPICRIN. IF FULL-FACED RESPIRATORY PROTECTION IS NOT REQUIRED, WEAR GOGGLES OR FULL-FACE SHIELD FOR EYE PROTECTION WHEN HANDLING THE LIQUID.

12. 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.
13. Always have adequate clean water available to wash the skin

**RESTRICTED USE PESTICIDE**

For retail sale to and use only by Applicators, or persons under the supervision, and only for those uses listed by the Certified Applicator's certificate.

**CHLOROPICRIN  
FUMIGANT**

ACTIVE INGREDIENTS:

CHLOROPICRIN

INERT INGREDIENTS:

TOTAL

KEEP OUT OF REACH OF CHILDREN

**DANGER**



**PESTICIDE**

**P O I S O N**

IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY. TAKE PREVENTIVE MEASURES AND DOCTOR OR AN EMERGENCY TREATMENT CENTER.

**STATEMENT OF PRACTICAL TREATMENT**

**IF INHALED:** Get exposed person to fresh air. If person is warm, make sure person can breathe. If breathing has stopped, give artificial respiration, preferably mouth-to-mouth. Do not give anything by mouth to any unconscious person.

**IF ON SKIN:** Immediately remove contaminated clothing, shoes and other items covering contaminated skin area thoroughly with water.

**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes.

**PRECAUCION AL USARIO:** Si usted no tiene experiencia use este producto haste que la etiqueta le explique como usarlo.

**NOTE TO PHYSICIAN:** Chloropicrin is a liquid that is the active ingredient in fumigation. As a gas it is a powerful lachrymator. Symptoms of overexposure are lachrymation, irritation, and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.

**BEST AVAILABLE COPY**

SOIL CHEMICALS CORPORATION FOR CORRECT PROCEDURE BEFORE USING. READ AND FOLLOW ALL LABEL DIRECTIONS AND THE PRODUCT LITERATURE SPECIFIC TO YOUR PARTICULAR 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.

**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 Soil Chemicals Corp.
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.

**RESPIRATORY EXPOSURE:**

RESPIRATORY PROTECTION: DO NOT BREATHE FUMES. A GAS MASK MUST BE CARRIED IN EACH SERVICE VEHICLE.

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13. Always have adequate clean water available to wash the skin.

**PRECAUTIONS TO FOLLOW DURING FIELD FUMIGATION**

14. This fumigant should not be applied when there is an atmospheric inversion, since uncomfortable concentrations of Chloropicrin may drift to nearby areas.
15. 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.
16. 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.

SEE HANDLING PRECAUTIONS CONTINUED IN THIRD COLUMN

ACTIVE INGREDIENTS:	
CHLOROPICRIN	99%
INERT INGREDIENTS:	1%
TOTAL	100%

KEEP OUT OF REACH OF CHILDREN

DANGER



PELIGRO

POISON

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

**STATEMENT OF PRACTICAL TREATMENT**

IF INHALED: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration, preferably mouth-to-mouth. Do not give anything by mouth to any unconscious person.

IF ON SKIN: Immediately remove contaminated clothing, shoes and other items covering the skin. Wash contaminated skin area thoroughly with soap and water.

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

PRECAUCION AL USARIO: Si usted no lee ingles, use este producto haste que la etiqueta le ha sido explicada ampliamente.

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.



Soil Chemicals Corporation  
PRODUCTS  
For Pest Management  
PO Box 782  
Hollister, CA 95024

E.P.A. EST. 8536-CA-1, 2, 3, 4; FL-1  
E.P.A. REG. NO. 8536-2

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# CRIN 100 ANT

99%  
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100%

OF CHILDREN

PELIGRO

ON

SURE, GET MEDICAL  
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TREATMENT FACILITY

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Soil  
Chemicals  
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### DIRECTIONS CONTINUED:

- 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 corrected without exposure to the fumes. Approach from upwind, with respiratory protection if required and make necessary repairs.
- When changing the cylinders, be certain they are turned off and the fumigant system is not under pressure.

### PRECAUTIONS TO FOLLOW AFTER FIELD FUMIGATION

- Post all treated areas with warning signs. The signs are available from Soil Chemicals Corporation.
- Keep all animals, children, and unauthorized people away from areas under fumigation during 48 hour exposure period and during removal of tarpaulin.
- Do not feed domestic animals on crop residues unless an E.P.A. 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.

### ENVIRONMENTAL HAZARD

This fumigant is toxic to fish and wildlife. It should not be discharged where it will drain into lakes, streams, ponds or public water. Do not contaminate water by cleaning of equipment or disposal of wastes.

### 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 a manner inconsistent with its labeling.

## 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 or handling containers should wear protective clothing. Open container only in a well-ventilated area wearing protective clothing, and respiratory protection if necessary.

### RETURN OF CYLINDERS

Cylinders are the property of:  
Soil Chemicals Corp.    Soil Chemicals Corp.    Soil Chemicals Corp.  
2060 East 220th St.    8770 Highway 25    7610 Hwy. 41 North  
Long Beach, CA 90810    Hollister, CA 95023    Palmetto, FL 33561

- 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.
- Do not ship cylinders without safety caps or valve protection bonnets.
- When a cylinder is partially full and there is no further requirement for the product, contact Soil Chemicals Corp. for return instructions.
- 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 Chloropicrin, 6.1, UN 1580, PG I, Poison-Inhalation Hazard, Hazard Zone B and no exemptions from specifications, packaging, marking and labeling are allowed. Describe empty cylinders as having least contained Chloropicrin (Inhalation Hazard). Do not ship with food, feeds, or clothing.

### HANDLING

- 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.
- Cylinders should never be subjected to rough handling or to abnormal mechanical shock such as dropping, bumping, dragging, or sliding.
- Ropes, slings, hooks, tongs, and similar handling devices should not be used for unloading cylinders.
- 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 OR LEAK PROCEDURE

Evacuate immediate area of spill or leak. Use SCBA combination air-supplied SCBA respirator, or approved canister respirator for enclosed area to correct problem. Move leaking or

## GENERAL INSTRUCTIONS

THIS FUMIGANT IS A HIGHLY HAZARDOUS MATERIAL AND ONLY BY PERSONS TRAINED IN ITS PROPER USE. BEFORE FOLLOW ALL LABEL PRECAUTIONS AND DIRECTIONS. ALL WITH THIS FUMIGANT SHOULD BE TRAINED IN THE NEEDED RESPIRATOR EQUIPMENT, DETECTOR DEVICES, IURES, AND THE PROPER USE OF THE FUMIGANT.

### SOIL FUMIGATION

Chloropicrin is a preplant fumigant for the control of pests as listed: such as, wireworms and nematodes caused by certain species of Phythium, Phytophthora and Verticillium. It is to be used in soil to be crops listed below. Prior to application, the soil condition for planting and with sufficient moist seed germination.

### APPLICATION

Apply this fumigant by means of chisels spaced apart and at a depth of 6" below soil surface fumigant after application, drag or cultipack in chisels, or wet down treated area to a depth treated area with a plastic tarpaulin. If plastic used, it should remain for a minimum of 48 hours to areas adjacent to fields where valuable crops adjacent to buildings inhabited by humans or livestock.

Fumigation of small volumes of soil or mushroom c made by injecting chloropicrin 6 - 8 inches deep not to exceed 12 inch spacing.

### RECOMMENDED DOSAGES\*

PREPLANT SOIL FUMIGATION. LAND TO BE PLANTED TO:	POUNDS PER
Strawberries	150-5C
Tomatoes	300-5C
Floral Crops	500
Nursery Crops	500
Onions	200-4C
Plant & Seed Beds	300-5C
Eggplant	300-5C
Cucumbers	300-5C
Melons	300-5C
Sweet Potatoes	150-4C
Yams	150-4C
All Other Crops	150-4C
Mushrooms Casing Soil**	5-10 cc/c
Potting Soil	3-4 cc/c
Seed Beds	3-6 cc/c

\* If treated area is covered with a plastic tarp after application, dosage may be reduced by 33%  
\*\*In the case of Mushroom soil, seal with water wet newspapers.

Row or bed applications may be made at the broadcast amount used will be proportionately less per acre row spacing and width of treatment in the row or

### EXPOSURE AND AERATION

After application, leave the soil undisturbed. Wet soil retards diffusion of the fumigant. A longer exposure period. At the end of the exposure the soil by plowing or deep cultivation. If heated by low temperatures occur during the exposure the soil several times is essential for thorough aeration is usually complete when the odor of the longer evident.

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### FUMIGATION OF ENCLOSED SPACES

When used for fumigation of enclosed spaces structures, warehouses, vaults, chambers, greenhouses, boxcars, ships, or other transport vehicles trained in the use of this product must be present during introduction of the fumigant, testing, and do not fumigate sites which may be used for transport of raw agricultural commodities. SEE RESPIRATORY PROTECTION STATEMENT

SPACE FUMIGATION (Not containing raw agricultural control of mites, cockroaches, silverfish, and Chloropicrin per 1000 cubic feet. Increase dosage per 1000 cubic feet when absorbent materials are

APPLICATION INFORMATION: Prior to application, all other openings should be sealed to make the space airtight. Temperature at time of application should be higher. Introduce Chloropicrin into a shallow pan, or similar absorbent material located in the use fans to hasten evaporation of Chloropicrin in circulation. Ventilate area thoroughly for 12 re-aeration operations. Fans, dryness, and high aeration. SEE AERATION STATEMENT.

VAULT FUMIGATION: For the control of fleas, cockroaches, and moths in furniture and clothing of Chloropicrin. In heavily loaded vaults, increase an additional 1 pound per 1000 cubic feet.

APPLICATION INFORMATION: Introduce the Chloropicrin into a shallow pan or onto buried absorbent material located inside the structure to hasten evaporation of Chloropicrin and circulation. Exposure time is 24 hours. Ventilate and using fans for 12 to 24 hours prior to re-SEE AERATION STATEMENT.

99%  
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**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. Lining highly acid soils before fumigation stimulates nitrification and reduces the possibility of ammonia toxicity.

**ENVIRONMENTAL HAZARD**

This fumigant is toxic to fish and wildlife. It should not be discharged where it will drain into lakes, streams, ponds or public water. Do not contaminate water by cleaning of equipment or disposal of wastes.

**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 a manner inconsistent with its labeling.

**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 or handling containers should wear protective clothing. Open container only in a well-ventilated area wearing protective clothing, and respiratory protection if necessary.

**RETURN OF CYLINDERS**

Cylinders are the property of:  
Soil Chemicals Corp. 2060 East 220th St. Long Beach, CA 90810  
Soil Chemicals Corp. 8770 Highway 25 Mollister, CA 95023  
Soil Chemicals Corp. 7610 Hwy. 41 North Palmetto, FL 33561

- 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 Soil Chemicals Corp. 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 Chloropicrin, 6.1, UN 1580, PG I, Poison-Inhalation Hazard, Hazard Zone B and no exemptions from specifications, packaging, marking and labeling are allowed. Describe empty cylinders as having least contained Chloropicrin (Inhalation Hazard). Do not ship with food, feeds, or clothing.

**HANDLING**

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- 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 OR LEAK PROCEDURE**

Evacuate immediate area of spill or leak. Use SCBA combination air-supplied SCBA respirator, or approved canister respirator for entry into affected area to correct problem. Move leaking or damaged containers outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spilled material to evaporate, or to absorb onto vermiculite, dry sand, earth, or similar absorbent material which may be disposed of on site, or at an approved disposal facility. Do not permit entry into spill area or cleanup by unprotected persons until concentration of chloropicrin is determined to be less than 0.1 ppm.

**DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinseate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest E.P.A. Regional Office for guidance.

Fumigant after application. Drag or cultipack immediately channels, or wet down treated area to a depth of 1". A treated area with a plastic tarpaulin. If plastic tarpaulin used, it should remain for a minimum of 48 hours. Do not use areas adjacent to fields where valuable crops are grown adjacent to buildings inhabited by humans or livestock.

Fumigation of small volumes of soil for mushroom casing and seeds by injecting chloropicrin 6 - 8 inches deep in a grid not to exceed 12 inch spacing.

**RECOMMENDED DOSAGES\***

PREPLANT SOIL FUMIGATION, LAND TO BE PLANTED TO:	POUNDS PER ACRE
Strawberries	150-500
Tomatoes	300-500
Floral Crops	500
Nursery Crops	500
Onions	200-400
Plant & Seed Beds	300-500
Eggplant	300-500
Cucumbers	300-500
Melons	300-500
Sweet Potatoes	150-400
Yams	150-400
All Other Crops	150-400
Mushrooms Casing Soil**	5-10 cc/cu ft.
Potting Soil	3-4 cc/sq. ft.
Seed Beds	3-6 cc/sq. ft.

\* If treated area is covered with a plastic tarpaulin immediately after application, dosage may be reduced by 33%.  
\*\*In the case of Mushroom soil, seal with water plus plastic wet newspapers.

Row or bed applications may be made at the broadcast rates amount used will be proportionately less per acre depending 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 fumigant, thus requiring longer exposure period. At the end of the exposure period, the soil by plowing or deep cultivation. If heavy rains are predicted by low temperatures occur during the exposure period, the soil several times is essential for thorough aeration. Aeration is usually complete when the odor of the fumigant is longer evident.

**FUMIGATION OF ENCLOSED SPACES**

When used for fumigation of enclosed spaces (houses, structures, warehouses, vaults, chambers, greenhouses, vans, boxcars, ships, or other transport vehicles) two trained in the use of this product must be present at all times during introduction of the fumigant, testing, and aeration. Do not fumigate sites which may be used for the transport of raw agricultural commodities.  
**SEE RESPIRATORY PROTECTION STATEMENT**

**SPACE FUMIGATION** (Not containing raw agricultural commodities): control of mites, cockroaches, silverfish, and fungi use 1 lb of Chloropicrin per 1000 cubic feet. Increase dosage 1 1/2 to 1 lb per 1000 cubic feet when absorbent materials are present.

**APPLICATION INFORMATION:** Prior to application, all windows and other openings should be sealed to make the building gas tight. Temperature at time of application should be 60 degrees or higher. Introduce Chloropicrin into a shallow pan, or onto burlap sacks, or similar absorbent material located inside the structure. Use fans to hasten evaporation of Chloropicrin and to keep it in circulation. Ventilate area thoroughly for 12 to 24 hours following fumigation. Fans, dryness, and high temperature hasten aeration.  
**SEE AERATION STATEMENT.**

**Vault Fumigation:** For the control of fleas, mites, silverfish, cockroaches, and moths in furniture and clothing use 1 lb of Chloropicrin. In heavily loaded vaults, increase dosage to an additional 1 pound per 1000 cubic feet.

**APPLICATION INFORMATION:** Introduce the desired amount of Chloropicrin into a shallow pan or onto burlap sacks or similar absorbent material located inside the structure or vault. Use fans to hasten evaporation of Chloropicrin and to keep it in circulation. Exposure time is 24 hours. Ventilate by opening doors and using fans for 12 to 24 hours prior to re-entry.  
**SEE AERATION STATEMENT.**

ACCEPTED  
with COMMENTS  
in EPA Letter Datch

26 MAY 1984

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

85362

# INSTRUCTIONS

THIS LABEL AND SHOULD BE USED BEFORE USING. READ AND UNDERSTAND ALL PERSONS WORKING IN THE HAZARDOUS. THE USE OF THIS LABEL IS AN EMERGENCY PROCEDURE.

## TREATMENT OF WOOD, TIMBERS, POLES, PILES AND GLUE-LAMINATED BEAMS FOR CONTROL OF INTERNAL WOOD DECAY BY FUNGI AND INSECTS

Carefully pour or inject Chloropicrin into drilled holes, then plug the holes with a 2 1/2" - 3" treated wood plug. When pouring or injecting fumigant and plugging holes, wear safety goggles to avoid splashing any liquid into the eyes. Holes in poles and piles should be positioned in a spiral pattern by drilling each hole 6 - 12" vertically from the preceding hole and rotating it by 90 degrees. Drill holes at a steep downward angle and avoid drilling through seasoning checks. If a treating hole intersects an internal rot pocket, plug that hole and drill new hole into solid wood above and, if possible, below the rot. For in-ground poles the first hole should be drilled at the ground level. Fill and plug the lowest hole before filling next higher hole. The suggested number of holes per treated structural timber and dosage are indicated in the following table:

POLE CIRCUMFERENCE	NOLE DIAMETER	LENGTH OF NOLE	NOLES PER POLE	PINTS OF FUMIGANT/POLE
LESS THAN 32"	5/8"	15"	6	3/4
	5/8"	18"	5	3/4
	3/4"	15"	4	3/4
	3/4"	15"	6	1
32" - 45"	3/4"	18"	5	1
	3/4"	21"	4	1
	3/4"	24"	3	1
	7/8"	21"	3	1
More than 45"	3/4"	24"	6	2
	7/8"	21"	5	2
	7/8"	24"	4	2
	7/8"	24"	4	2

For piles treated near the cutoff tops, cap the cutoff as recommended by the American Wood Preserver's Assoc. Standard PA to contain the chemical and prevent reinfestation.

To treat glue-laminated beams, use at least 0.04 pints of chemical per cubic foot of wood to be treated. Drill treating holes into the top laminate through all glue lines when treatment is necessary. Stagger holes to minimize strength reductions of timbers. A vapor barrier wrap may be needed to confine chemical vapor. Do not treat inside an inhabited building.

Have at least one gas mask with appropriate canisters available at the treating site. Wear protective gear and stand upwind when injecting the fumigant.

## PLACARDING OF AREAS FUMIGATED

The applicator must placard or post all entrances to the fumigated area with signs bearing in English and Spanish.

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation. DO NOT ENTER/NO ENTRENAR."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of applicator.

Only a certified applicator may remove placards, and only if the concentration of chloropicrin is below 0.1 ppm (0.7 mg/cu. ft.).

## AERATION AND REENTRY

After fumigation, treatment areas must be aerated until the concentration of chloropicrin is below 0.1 ppm. Do not allow entry into area by any person before this time unless provided with a safety protection device (SCBA, a combination air-supplied/approved canister respirator).

## WARNING AGENT

Chloropicrin may be used for clearing structures prior to painting with methyl bromide or sulfuryl fluoride. Prepare structures for fumigation, and seal all except one entrance. Use 1 or 10,000 - 15,000 cubic feet of space to be fumigated. When structure is evacuated, seal the entrance and start the fans. Check for tightness. Five to ten minutes later, introduce methyl bromide or sulfuryl fluoride.

CHLOROPICRIN 100 is compatible when mixed with Chlorinated C<sub>3</sub> Hydrocarbons

## WARRANTY

NOTICE: Seller warrants that the product conforms to its 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 implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, extends to the use of this product contrary to the instructions, or under abnormal conditions, or under conditions reasonably foreseeable to seller, and buyer assumes the responsibility for any such use.

SPECIMEN



ON the control of soil-borne nematodes, and diseases Phytophthora, Fusarium, etc. to be planted to the soil should be in moisture to support

applied no more than 12" surface. To seal in tarpaulin immediately behind a depth of 1", or cover with plastic tarpaulin for 48 hours. Do not apply to crops are growing nor to livestock.

subsoil coating soil may be done deep in a grid pattern

- DOSAGES\***
- 150-500
  - 300-500
  - 500
  - 500
  - 200-400
  - 300-500
  - 300-500
  - 300-500
  - 150-400
  - 150-400
  - 150-400
- 5-10 cc/cu ft  
3-4 cc/sq ft  
3-4 cc/sq ft.

plastic tarpaulin immediately covered by 334. The water plus plastic or

the broadcast rates but the per acre depending on the row or bed

disturbed for 10 to 14 days. fumigant, then requiring a 24-hour exposure period, aerate. If heavy rains accompany the exposure period, working or thorough aeration. Aerator of the fumigant is no

## CLOSED SPACES

closed spaces (barns and other sheds, greenhouses, trucks, airport vehicles) no persons must be present at all times during setting, and aeration periods. Use used for the storage or use.

agricultural commodities: For fish, and fungi use 1 pound of case dosage 1 1/2 to 1 3/4 pounds if birds are present.

location, all windows, doors, make the building gas tight. should be 60 degrees F or shallow pan, or onto buries located inside the structure. Chloropicrin and to keep fumigant for 12 to 24 hours before and high temperatures speed

of flies, mice, silverfish, and clothing use 1 to 2 pounds with. Increase dosage 20% by feet.

use the desired amount of onto buries sacks or similar structure or vault. Use fumigant and to keep fumigant in place. Ventilate by opening, allow for re-entry.

not apply	3/4"	18"	5	1
being met	3/4"	21"	4	1
	3/4"	24"	3	1
all may be	7/8"	21"	3	1
different	3/4"	24"	6	2
	7/8"	21"	5	2
	7/8"	24"	4	2

More than 45"

For piles treated near the cutoff tops, cap the cutoff as recommended by the American Wood Preserver's Assn. Standard WA to contain the chemical and prevent reinfestation.

To treat glue-laminated beams, use at least 0.06 pints of chemical per cubic foot of wood to be treated. Drill treating holes into the top laminate through all glue lines when treatment is necessary. Stagger holes to minimize strength reductions of timbers. A vapor barrier wrap may be needed to confine chemical vapor. Do not treat inside an inhabited building.

Have at least one gas mask with appropriate canisters available at the treating site. Wear protective gear and stand upwind when injecting the fumigant.

Chloropicrin may be used for clearing structures prior to fumigating with methyl bromide or sulfuryl fluoride. Prepare structure for fumigation, and seal all except one entrance. Use 1 ounce per 10,000 - 15,000 cubic feet of space to be fumigated. When building is evacuated, seal the entrance and start the fans. Check seals for tightness. Five to ten minutes later, introduce methyl bromide or sulfuryl fluoride.

CHLOROPICRIN 100 is compatible when mixed with Chlorinated C<sub>3</sub> Hydrocarbons

**WARRANTY**

NOTICE: Seller warrants that the 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.

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SPECIMEN



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INHALATION HAZARD