

**RESTRICTED USE PESTICIDE**

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.

**CHLOR-O-PIC®**

ACTIVE INGREDIENTS	By. Wt.
Chloropicrin.....	96.5%
INERT INGREDIENTS.....	3.5%

JAN 22 1989

EPA Reg. No. 5785-11

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**POISON**

**PELIGRO**

**PRECAUCION AL USUARIO:** Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

**Statement of Practical Treatment.**

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

**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 an unconscious person.

**ON SKIN:** Immediately remove contaminated clothing, shoes, and other items covering 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.

**SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.**

© Copyright 1988 Great Lakes Chemical Corp.

EPA REG. NO. 5785-17-AA

GREAT LAKES CHEMICAL CORPORATION  
WEST LAFAYETTE, IN 47906



### ENVIRONMENTAL HAZARDS

This product is toxic to fish and wildlife. Keep out of lakes, streams, and ponds. Do not contaminate water by cleaning of equipment or disposal of wastes. Open dumping is prohibited.

Do not allow Chlor-O-Pic or its vapors to come into contact with any desirable living plants. Avoid spilling, dripping or otherwise contacting Chlor-O-Pic with crops in adjacent fields as plant injury may result. Do not apply Chlor-O-Pic when there is little or no air movement or during air inversion conditions.

**SPILL AND LEAK PROCEDURES.** Evacuate immediate area of spill or leak. Use a NIOSH/MSHA approved air purifying respirator approved for organic vapors, self-contained breathing apparatus (SCBA), or a combination air supplied/SCBA 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 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 area by unprotected persons until concentration of chloropicrin is determined to be less than 0.1 ppm.

### PHYSICAL OR CHEMICAL HAZARDS

Chlor-O-Pic may be corrosive under certain conditions. DO NOT USE WATER to clean equipment. Flush equipment with kerosene or fuel oil. Do not use handling equipment or containers made from magnesium, aluminum, or alkali metals. Chlor-O-Pic is a nonflammable liquid.

### 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 and Handling. Store upright 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.

Disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Return empty cylinders freight collect to the Great Lakes Chemical Corporation location from which shipment was made. Close cylinder valve by turning clockwise until hand tight. Disconnect lines. Replace safety caps and bonnet. Return partial cylinders only after consulting Great Lakes Chemical Corporation for proper shipping instructions.

**AERATION AND REENTRY.** After fumigation, treated areas must be aerated until the level of chloropicrin is below 0.1 ppm. Do not allow entry into the treated area by any person before this time unless provided with an accepted respiratory protection device.

Chlor-O-Pic is a highly hazardous material and must 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 must be trained in the hazards, use of required respirator equipment and detector equipment, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces (house and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships and other transport vehicles, two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

**I. SPACE FUMIGATION DIRECTIONS**

When using Chlor-O-Pic as a space fumigant, the applicator must placard or post all entrances to the fumigated area with signs bearing the information previously listed under "Placarding of Fumigated Areas".

**A. SPACE FUMIGATION.** For specific treatment sites, parts to be controlled, rates of application and exposure times, see Table I.

General Application Information. Prior to application, all openings should be sealed to make the structure as gas tight as possible. For rat and mouse control in structures not tightly constructed seal any cracks or openings which might allow fumigant to escape or allow rodents to enter or leave the premises. Temperature at the time of application should be 60°F. or higher. For fumigation of potato houses, the air inside should be saturated with moisture at a temperature of at least 70°F. For rodent control, warm the space as much as possible. In all cases, extinguish flames and shut off heating elements prior to application. Introduce Chlor-O-Pic into a shallow pan (except aluminum) or onto absorbent material such as burlap sacks located inside the structure. Arrange a fan to direct an air stream over the pan or absorbent material to hasten evaporation. Additional fans should be used as necessary to keep the fumigant in circulation. At the end of the exposure period, ventilate the area by opening doors, windows and exhaust ports (if so equipped) and continue to run fans for 12 to 24 hours. Observe all aeration, reentry, and placarding instructions listed earlier. In cases where vaults are inside another structure, do not allow exhausting gas to concentrate in the adjacent occupied space in excess of 0.1 ppm .

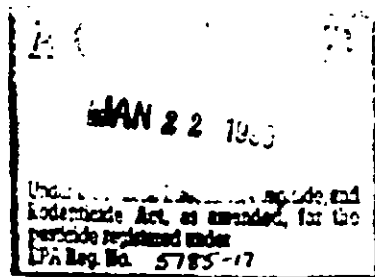
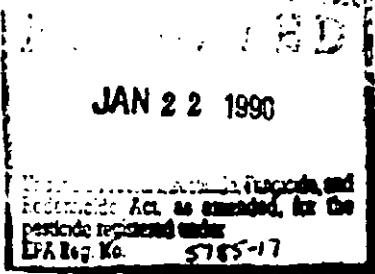


TABLE I  
CHLOR-O-PIC

## RECOMMENDED DOSAGES FOR STRUCTURAL FUMIGATION

Treatment Site	Pests	Rate	Exposure Time (Hrs)	
Empty structures and structures containing materials such as empty bags, boxes and crates and furniture	mites, cockroaches, silverfish	1 - 2.5 lb. <sup>a</sup> per 1000 cu.ft.	12 - 24	
Potato Houses (empty)	fungi	0.35 - 0.7 lb. per 1000 cu.ft.	12 - 24	
Vaults containing furniture and clothing	centipedes, cockroaches, fleas, mites, moths, silverfish, spiders	vault loaded less than 75% of capacity	1-2 lb per 1000 cu.ft.	12 - 24
		vault loaded more than 75% of capacity	2-3 lb per 1000 cu.ft.	12 - 24
Empty structures such as grain bins (subfloor aeration space), seed corn dryers, seed storage buildings, warehouses and grain mills	insects, mites, and fungi	structures with tight construction	1.5-2.5 lb per 1000 sq. ft.	12 - 24
		structures with loose construction	2.5-4 lb per 1000 sq. ft.	12 - 24
	rats and mice	structures with tight construction	1.5-2.5 lb per 1000 sq. ft.	12 - 24
		structures with loose construction	2-4 lb per 1000 sq. ft.	12 - 24

<sup>a</sup> Use more than 1 lb/1000 cu. ft. only when premises contain significant quantities of absorbent material.

B. WARNING AGENT. Chlor-O-Pic may be used for clearing structures prior to fumigating with methyl bromide or sulfuryl fluoride. Use 1 ounce per 10,000 cubic feet of space to be fumigated. Dispense Chlor-O-Pic into a shallow pan made of plastic or metal (except aluminum) and arrange a fan to direct an air stream across the pan to hasten evaporation. After all the liquid has evaporated and the building is evacuated, seal the last entrance and start the fans. Check seals for tightness. Five to ten minutes later, introduce methyl bromide or sulfuryl fluoride.

## II. SOIL FUMIGATION

Chlor-O-Pic may be used as a preplant soil fumigant for control of many economic soilborne pests if present in soil at time of treatment. Soil fumigation with Chlor-O-Pic provides control or suppression of plant-parasitic disease causing organisms including nematodes, the bacterial pathogen Pseudomonas solanacearum, fungi in the genera Cylindrocladium, Fusarium, Phytophthora, Pyrenochaeta, Pythium, Rhizoctonia, Sclerotinia, Sclerotium, and Verticillium, the clubroot organism Plasmodiophora, and the soil pox organism Actinomyces ipomoea. Control of certain soil-infesting insects such as cutworms, grubs and wineworms may also be obtained as well as suppression of weeds if used with a tarpaulin.

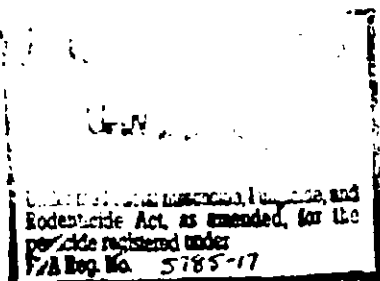
WHEN TO TREAT: Fumigate with Chlor-O-Pic at least 14 days prior to planting whenever soil conditions are suitable. For best results, soil should be tilled to a fine, loose condition with soil temperature at depth of application between 60°F and 85°F. Do not fumigate when soil temperature is below 50°F. Soil should contain adequate moisture to support good seed germination. Fall treatment is suggested for fields that will be planted too early to allow for adequate soil temperatures.

SOIL PREPARATION: For best fumigant penetration and soil sealing, plant remains should be worked into the soil long enough before treatment to allow for maximum decomposition. Deep tillage (e.g. 12 to 18 inches) often improves results. Till the soil to a very fine condition, leaving as few clods as possible. Optimum seedbed moisture is an essential factor for effective fumigation. Do not fumigate dry soil.

Application: For field application as an overall treatment, inject Chlor-O-Pic with a chisel type applicator having chisels spaced no more than 12 inches apart and injecting the fumigant 6 - 8 inches below the soil surface. To seal in fumigant after application, cover treated area with a plastic tarp. Alternate sealing methods include the use of a drag, cultipacker, roller or float to firm the soil surface immediately behind chisels, or the application of water to wet the surface of soil 1 inch deep. For application as a row or bed treatment in the field, Chlor-O-Pic should be applied using one chisel shank per row to inject fumigant 6 - 8 inches below the original soil surface and sealed by listing a high, wide bed over the row or firming the bedded area with a bed-shaper. Fumigation of small areas or volumes of soil, potting mix or mushroom casing may be made by applying Chlor-O-Pic with a probe type point-injection device to a 6 - 8 inch depth in a grid pattern with injection points on a 12-inch spacing. For all applications involving the use of a plastic tarpaulin, remove the tarp after 24 - 48 hours of exposure. Refer to Table II for dosage rates for specific crops.

TABLE III  
CHLOR-O-PIC SOIL FUMIGATION USES

Field soils to be planted to:	Lbs per acre, overall <sup>a</sup> , non-tarp <sup>b</sup>
Cucumbers, eggplant, melons	300 - 500
Onions	200 - 400
Sweet potatoes	150 - 400
Tobacco	150 - 500
All Other Crops	150 - 500
Special small areas or volumes of:	cc/cu. ft. or sq. ft.
Mushroom casing	5 - 10/cu. ft.
Potting mix	3 - 4/sq. ft.
Seed bed	3 - 6/sq. ft.



- <sup>a</sup> Row or bed applications are made at the overall rate, but amount used is proportionately less per acre depending on the row spacing and width of treatment in the row or bed.
- <sup>b</sup> If treated area is covered with a plastic tarp immediately after application, reduce dosage by 33%

**WHEN TO PLANT:** The soil should not be disturbed for 14 days following treatment. Do not plant seeds or transplants until the fumigant odor has left the soil. Cool or wet weather following treatment will retard diffusion of the fumigant, requiring a longer exposure and aeration period. Should these conditions occur, hasten aeration by working the bed to the depth of injection, taking care to avoid reinfestation of the fumigated zone with contaminated equipment and untreated soil.

### III. DIRECTIONS FOR TREATMENT OF DOUGLAS FIR TREE STUMPS TO REDUCE INOCULUM OF LAMINATED ROOT ROT, Phellinus weirii

Drill vertical treatment holes of 1.25" diameter to a depth slightly below the soil line at the stained areas of affected stumps. Drill a minimum of 4 holes, one in each quadrant of the stump top, for stumps 13" or less in diameter. Drill at least 8 treatment holes (2 per quadrant) for larger stumps. Distribute the total amount of fumigant equally among all holes. Refer to TABLE III for the appropriate amount of fumigant.

Seal treatment holes by plugging with hemlock dowels 2" long and 1-5/16" in diameter, beveled slightly at one end to facilitate driving them in. Seal the ends of the plugs by dipping the beveled end into resorcinol glue and allow the glue to harden before inserting the plugs.

8  
9

TABLE III

CHLOR-O-PIC DOSAGE RATE TABLE FOR DOUGLAS FIR TREE STUMPS  
TO REDUCE INOCULUM OF Mellinus weirii

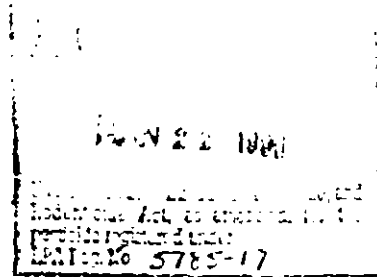
<u>Stump Diameter Inches</u>	<u>Fluid Ounces Per Stump</u>
8	3
12	7
16	12
20	19
24	30
28	43
32	59
36	78
40	102

JAC

JAN 22 1940

Under the Federal Insecticide, Fungicide, and  
Rodenticide Act, as amended, for the  
purpose is registered under  
EPA Reg. No. 5785-17





Seller warrants that this product complies with the specifications expressed in this label. SELLER MAKES NO OTHER WARRANTIES; AND DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE INTENDED PURPOSE. Seller's liability for default, breach, or failure under this label shall be limited to the amount of the purchase price. Seller shall have no liability for consequential damages.