5 GAL. NET

VAPOROOTER® PLUS

A FOAMING FUMIGANT

RIDS SEWER LINES OF ROOTS

ROOT GROWTH CAUSES SEPTIC SPOTS IN SEWAGE FLOW.
ANAEROBIC DIGESTION IN THIS RETARDED FLOW CAUSES GREASE DEPOSITS AND GENERATION OF HYDROGEN SULFIDE.

ACTIVE INGREDIENTS:	
Sodium methyldithiocarbamate (anhydrous)	28.40%
Dichlobenil — 2,6-dichlorobenzonitrile	1.73%
INERT INGREDIENTS:	69.87%
	100.00%

Weight per gallon — 9.78 lbs.

A FORMULATION OF VAPAM**
PLUS DICHLOBENIL

*Airrigation's Reg. T.M.
**Stauffer Chemical Company's Reg. T.M. and U.S. Pat. Nos. 2,766,554; 2,7[illegible]

WARNING
KEEP OUT OF REACH OF CHILDREN

ACCEPTED
12-9-71
UNDER THE FEDERAL INSECTICIDE FUNGICIDE AND [illegible] ACT FOR [illegible] ED UNDER NO. 9993-2

Harmful if inhaled or swallowed.
Irritating to eyes, nose, throat, and skin.
(See left panel for additional warnings.)

manufactured exclusively for

AIRRIGATION ENGINEERING COMPANY, INC.

Post Office Box H Carmel Valley, California 93924 PHONE: 408-659-2000

AGITATE BEFORE USING. RINSE CAN AND ADD TO BATCH

[redacted]

LABEL SPECIMEN

WARNING

- Avoid breathing vapor or spray mist.
- Do not get in eyes, on skin, or clothing.
- In case of contact, immediately remove contaminated clothing or shoes and flush with plenty of water, and apply soothing lotion; for eyes, flush with water for at least 15 minutes and get medical attention.
- Wash and dry clothing and shoes before re use
- When applying in enclosed areas, wear a mask or respirator of a type passed by the U. S. Department of Agriculture for VAPAM** protection.
- Keep children and pets out of area being treated.
- Do not store near feed or foodstuffs.
- Keep container tightly closed when not in use.
- Do not store below 0 F. or above 90 F.
- **PERFORATE EMPTY CONTAINER, CRUSH, BURY with waste in safe area away from crops and water supplies.**

PRODUCT INFORMATION

VAPOROOTER PLUS is a water-soluble, foam-type, surface-active formulation of VAPAM** plus dichlobenil. When properly applied to sewer mains, VAPOROOTER PLUS kills and inhibits the regrowth of plant roots in the interior of the mains.

VAPOROOTER PLUS liquid is converted into a gaseous fumigant and is maintained in an active foam state on pipe and root surfaces when the sewer mains are properly sprayed or soaked with the VAPOROOTER PLUS solution. Dichlobenil, a new root-regrowth inhibitor, is a slightly soluble crystalline solid which is readily absorbed by the root and adsorbed on organic and inorganic colloids of sludge and clay, in the tile joint. The presence of dichlobenil in the tile joints furnishes a residual control of root regrowth by inhibiting the development of the actively-dividing meristem cells in the root tips. Therefore, new root shoots of branches which may regrow from outside the pipe joints (where cracks or leaks occur) are retarded or inhibited in their growth (710707)

VAPOROOTER PLUS is a nonsystemic chemical for control of roots in sewer mains, drain-lines, and other conduits. Root removal helps control septic spots that produce slimes and fatty acid deposits. These organic materials often generate hydrogen sulfide in the sewer main. Only the roots and organic deposits in the sewer pipe are affected by VAPOROOTER PLUS

PROCEDURE FOR CONTROLLING ROOT GROWTH IN SEWER MAINS BY SOAKING THE LINE WITH VAPOROOTER PLUS SOLUTION

1. Determine which of the collection lines have known root problems. Start with the first manhole section in the upstream end of the line and be sure there are four or five sections downstream which can be soaked progressively with the same solution by passing the solution downstream.

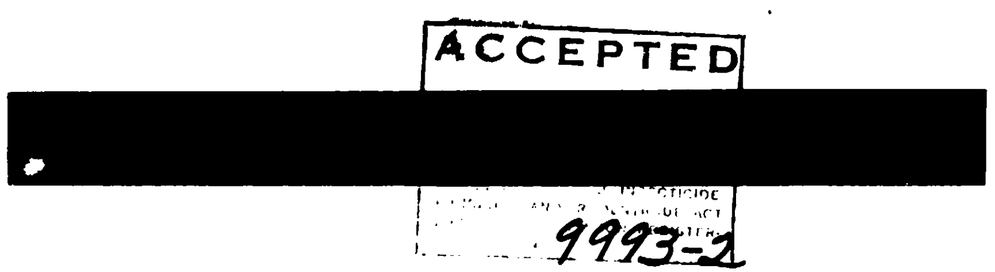
2. Plug the main securely at the manhole on the downstream end of the first section to be soaked. Add water to the upstream manhole of this section at the rate of approximately 40 gallons a minute. While this water is being added to the manhole, add VAPOROOTER PLUS concentrate in sufficient quantity to assure that the required amount of water to fill the section of the main and the taps will have 1% volume/volume of VAPOROOTER PLUS in solution

   EXAMPLE: Assuming the first section to be soaked is a 6-inch main 400 feet in length, it will require 1.5 gallons per foot, or 600 gallons to fill the main, and a 1% volume/volume solution of VAPOROOTER PLUS will require the addition of 6 gallons of VAPOROOTER PLUS concentrate.

3. After this solution has been allowed to stand in the line for at least 30 minutes, and preferably for an hour, then the next downstream manhole should have

EPA Reg. No. 9993-2-AA

*Reg. TM
**Reg. TM (Stauffer)



the main plugged and the upstream plug should be removed, allowing VAPOROOTER PLUS solution to fill this section of the line. Again this re-used batch of solution should remain in the line for 30 minutes to an hour. By following this method of passing the same batch of solution down line for four or five sections of line, it is feasible to use the same batch of solution to treat 1500 to 2000 feet of line at a total cost for VAPOROOTER PLUS of 5c per foot of 6" sewer mains.

4. Where the same batch cannot be used in several downstream sections of root-infested lines, we can furnish special plugs that make it practical to pump and transport the VAPOROOTER PLUS solution to another line. House cleanouts or back flow valves on service lines can be plugged with our special inflatable plugs to guard against flooding.

5. The spray method will be necessary to treat some sewers that are impractical to soak, due to the location of the root problem, and line grades as related to service taps.

SEWER PIPE CAPACITY

Pipe Diameter	1-foot length
4 inches	0.65 gal.
6 inches	1.47 gal.
8 inches	2.61 gal.
10 inches	4.1 gal.
12 inches	5.9 gal.

DIRECTIONS FOR USE OF SPRAY PROCEDURE

Add three parts water to one part VAPOROOTER PLUS, and spray interior of 6-inch and 8-inch mains at rate of one gallon of this solution to each 100 feet. Spray 10-inch and 12-inch mains at rate of one and one-half gallons of solution to each 100 feet.

The spray equipment should be of the hydraulic type to produce line pressure of 100 to 180 pounds per square inch. Two hollow-cone, fog-type nozzles should be mounted on a carriage that will maintain the nozzle position near center of pipe being sprayed. One hollow-cone spray should be directed forward — the other to the rear — in a manner to contact all pipe surfaces at angles of 60° to 80°. The spray must have good hydraulic impact and strike the pipe and roots from all sides. This type of application gives the most effective removal of slimes and fatty acids from the pipe and root surfaces and produces the most effective foam characteristics. The effectiveness of the fumigant VAPAM™ is enhanced by good foam formation of the small-bubble type and removal of organic films from the surfaces of the pipe and roots.

USE WARNINGS

USE PROMPTLY AFTER MIXING WITH WATER. DO NOT ALLOW SOLUTION TO STAND.

Wash and flush all equipment with water after each day's use. Disassemble valves and nozzles and clean carefully.

KEEP OFF DESIRABLE LAWNS AND PLANTS.

Do not spill or discard solution waste within three feet of the drip-line of plants, shrubs, or trees. If excessive spillage occurs on the street or other paved areas in the vicinity of greenhouses, where growing plants are present or where fumes may enter other buildings containing growing plants, immediately flush the spill thoroughly with water spray at moderate pressure, to prevent fumes from drifting toward critical areas.

DO NOT USE IN CONFINED AREAS WITHOUT ADEQUATE VENTILATION.

SPECIAL NOTICE

VAPOROOTER PLUS should not be used to treat roots in storm sewers or other drains where waste water will not be treated or controlled. VAPOROOTER is effective for killing roots in storm sewers or drains. VAPOROOTER has no dichlobenil or other additive which may have an extended effect on soil or plant growth. Hence, it is safe to use under these conditions.

NOTICE: Airrigation Engineering Company makes no warranty, express or implied, including the warranties of merchantability and/or fitness for any particular purpose, concerning this material, except those which are contained on this label.

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