

ACCEPTED

DEC 15 1975

UNDER THE FERTILIZER, FUNGICIDE AND HERBICIDE ACT  
FOR ECONOMIC POISON REGISTERED  
UNDER NO. 15887-16 SUBJECT  
TO ATTACHED CONDITIONS

HI  
BRAND

#### PRODUCT INFORMATION

VAPAM is a water soluble liquid. When applied to properly prepared soil, the liquid is converted into a gaseous fumigant. After sufficient interval of time, the gas dissipates leaving the soil ready for planting. Vapam is recommended for the control of the following soil-borne pests that attack ornamental, food and fibre crops: Weeds and germinating weed seeds [annual bluegrass, Bermudagrass, chickweed, dandelion, ragweed, henbit, lambsquarters, Amaranthus sp. (pigweed, careless weed) watergrass, Johnsongrass, nutgrass, wild morningglory and purslane] nematodes, symphyllids (garden centipede); and soil-borne diseases (Rhizoctonia, Pythium, Phytophthora, Verticillium, Sclerotinia, Oak root fungus and club root of crucifers).

#### USE PRECAUTIONS

Keep children and pets out of treated area. Keep off desirable lawns and plants. Do not apply within 3 feet of the drip line of desirable plants, shrubs or trees. Do not use in confined areas without adequate ventilation OR where fumes may enter nearby houses containing growing plants. Do not use in greenhouses where desirable plants are present. Keep container tightly closed when not in use. Do not store near feed or food.

**FISH CAUTIONS:** This product is toxic to fish. Keep out of lakes, streams or ponds. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment, or disposal of wastes. Apply this product only as specified on this label.

#### DIRECTIONS FOR USE

Before applying Vapam always cultivate thoroughly area to be treated, breaking up clods and loosening soil deeply and thoroughly. A week before treatment, moisten soil after cultivation to the desired depth; sprinkle or flood irrigate. This step is essential for all methods of use. Immediately before application, cultivate lightly if the soil has crusted.

To prevent loss from evaporation, use only at times when air temperature is moderate and there is little wind movement. Soil temperature must be in the range of 60°-90°F. at a 3 inch depth. For other conditions, see section, "Cultivation & Planting After Application". Do not apply to the soil surface, as in the sprinkler method, when air temperature is over 90°F. or when low humidity or high winds would cause loss of Vapam before it can be drenched into the soil with additional water. If fumes become unpleasant during treatment, apply more water to seal the fumes into the soil where they should be confined to achieve maximum fumigant benefit.

The activity of Vapam is increased by the use of a tarp (plastic, paper or fabric) spread loosely over the treated area and secured to prevent removal by wind. Keep covered for a minimum period of 48 hours. Seven days after treatment cultivate area to depth of 2 inches to aerate the soil. Do not seed earlier than 21 days after application when tarping method is used.

USE PROMPTLY AFTER MIXING WITH WATER. DO NOT ALLOW SOLUTION TO STAND. Flush all equipment with water after each day's use. Disassemble valves and clean carefully.

#### CULTIVATION AND PLANTING AFTER APPLICATION

On well drained soils of light to medium texture which are not excessively wet or cold following application, planting may take place 14 to 21 days after treatment. If soils are heavy or especially high in organic matter or remain wet and or cold (below 60°F.) following application of Vapam, a minimum interval of 30 days should be observed. Where dosages are greater than 100 gal. per acre, wait at least 60 days. On heavy, wet soils, light surface cultivation to break up crusting and promote drying of the soil should be done 5 to 7 days after application. This cultivation may be repeated as necessary. To avoid reinfesting treated soils, cultural practices should be such that untreated soils are not mixed with treated soils.

**SPECIAL INSTRUCTIONS:** When treating potting soil, or heavier field soils, including soils high in clay or organic matter, it is especially important that the soil be allowed to aerate and dry thoroughly after using Vapam. During cold and/or wet weather, frequent shallow cultivations may aid the escape of Vapam from the soil. If in doubt, transplant a seedling plant and examine for injury before planting crop.

#### USES, APPLICATION METHODS & RATES

FOR SHALLOW PESTS IN SEED BEDS, PLANT BEDS, LAWNS AND OTHER LIMITED AREAS:

**SPRINKLING CAN METHOD:** Place 1 pt. Vapam (1½ pt. on very heavy soils or for deep-rooted weeds) in a sprinkling can, fill with water, and sprinkle uniformly over 50 sq. ft. of well-prepared soil. Sprinkle immediately with water until soil is sealed, or tarp for 48 hours.

**HOSE PROPORTIONER METHOD:** Add 1 qt. Vapam to 3 qt. water in a bucket or other container and apply, using a hose proportioner, to an area of 100 sq. ft. Sprinkle with water until soil is sealed, or tarp for 48 hours.

(continued)

NET CONTENTS

GALLON

VAPAM®

#### SOIL FUMIGANT SOLUTION FOR ALL CROPS

ACTIVE INGREDIENTS: Sodium methyldithiocarbamate (anhydrous) 32.7%  
INERT INGREDIENTS 67.3%  
100.0%

#### CAUTION

HARMFUL IF INHALED OR SWALLOWED • IRRITATING TO EYES, NOSE, THROAT AND

Avoid breathing vapor or spray mist.

Do not get in eyes, on skin, on clothing.

In case of contact, immediately remove contaminated clothing or shoes and flush skin with plenty of water, and apply soothing lotion; for eyes, flush with water for at least 15 minutes and get medical attention.

DO NOT REUSE CONTAINER. DESTROY WHEN EMPTY.

Wash and dry clothing and shoes before re-use.

When applying in enclosed areas wear a respirator of a type approved by the U. S. Bureau of Mines for Vapam protection.

READ ALL LABEL DIRECTIONS BEFORE USING

EPA Establishment No. 15887-TX-1

EPA Reg. No. 15887

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**READ ALL LABEL DIRECTIONS BEFORE USING**  
**DO NOT STORE BELOW 0°F.** Product crystallizes at lower temperatures. Warm or store at higher temperatures and mix to redissolve crystals and assure uniformity before use.

The activity of Vapam is increased by the use of a tarp (plastic, paper or fabric) spread loosely over the treated area and secured to prevent removal by wind. Keep covered for a minimum period of 48 hours. Seven days after treatment cultivate area to depth of 2 inches to aerate the soil. Do not seed earlier than 21 days after application when tarping method is used.

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#### GALLON

#### SOIL FUMIGANT SOLUTION FOR ALL CROPS

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INERT INGREDIENTS	67.3%
	100.0%

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**DO NOT REUSE CONTAINER. DESTROY WHEN EMPTY.**

#### Keep Out of Reach of Children

Wash and dry clothing and shoes before re-use.

When applying in enclosed areas wear a mask or respirator of a type approved by the U. S. Bureau of Mines for Vapam protection.

EPA Establishment No. 15887-TX-1

EPA Reg. No. 15887-16

**Agricultural Chemicals of Dallas**

3707 E. Kiest Blvd. Dallas, Texas

**ROTARY TILLAGE:** front of tillage. Follow immediate surface. Light escape.

**FIELD APPLICATION:** SOIL INJECTION: Vapam 4 in. roller to soil after rolling. Vapam per acre. **SPRINKLER:** large water. Vapam per acre (soil), run sprayer. **VERY LIGHT SOIL:** For control of 3 or more weeds per acre.

**CHECK OR FLOOD:** water during upon the kind per acre.

**SOIL COVER:** sprayed or d equipment. C The soil should be mended rate equivalent to

**TREATMENT:** eased tree a shallow basin water while sufficient water For control of Increase dosage penetrate to planting site.

**TREATMENT:** A. **SPRINKLE:** 1. Spread soil pre-treated

**NOTICE:** the water mater

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EPA Establishment No. 15887-TX-1

EPA Reg. No. 15887-16

**Agricultural Chemicals of Dallas**  
3707 E. Kiest Blvd. Dallas, Texas

**ROTARY TILLER:** Spray or sprinkle diluted Vapam immediately in front of tiller. Use 1 qt. Vapam in 2½ gal. water per each 100 sq. ft. Follow immediately with a roller to smooth and compact the soil surface. Light watering or a tarp after rolling will help prevent gas escape.

**FIELD APPLICATION—WHERE ENTIRE AREA IS BEING TREATED:**  
**SOIL INJECTION:** Space thin injection shanks 5 in. apart and inject Vapam 4 in. deep into well prepared soil. Follow immediately with a roller to smooth and compact surface. Light watering or a tarp after rolling helps prevent gas escape. For field use, 40 to 100 gal. Vapam per acre is recommended.

**SPRINKLER SYSTEM:** Use only those sprinkler systems which give large water droplets to prevent excessive loss. Use 75 to 100 gal. Vapam per acre. For control of shallow pests (top 1 ft. or less of soil), run sprinklers 5 to 10 min. In next 10 to 20 min. inject into the sprinkler system all Vapam needed for the area covered. On very light soils keep surface moist by sprinkling for 2 or 3 days. For control of pests deeper than 18 in. in the soil, divide Vapam into 3 or more equal parts and apply at intervals during the sprinkling period.

**CHECK OR FLOOD IRRIGATION:** Meter Vapam at a steady rate into water during irrigation. Use 50 to 100 gal. Vapam per acre, depending upon the kind of pest and depth desired, in 3 to 18 inches of water per acre.

**SOIL COVERING METHODS:** (Bed-over methods). Vapam may be sprayed or dripped onto the soil immediately ahead of bed-shaping equipment. Cover the Vapam with soil to a depth of 3 to 6 inches. The soil should be rolled and compacted immediately. The recommended rate of Vapam is 50 to 100 gal. per acre, approximately equivalent to 1 to 2 pints per 100 ft. of 12-inch row.

**TREATMENT OF TREE REPLANT SITES:** After removing dead or diseased tree and as much of the root system as possible, make a shallow basin over the planting site. Add Vapam to the stream of water while filling the basin. Use 1 qt. Vapam per 100 sq. ft. in sufficient water (depending on soil type) to penetrate at least 6 ft. For control of oak root fungus, use a basin at least 20 x 20 sq. ft. Increase dosage to 2 qt. Vapam per 100 sq. ft. in sufficient water to penetrate to the depth of root system. If water is tanked to the planting site, add Vapam to the water and mix before filling basin.

**TREATMENT OF POTTING SOIL:**

**A. SPRINKLE METHOD:**

1. Spread soil in a smooth layer 4 inches high on concrete or on pre-treated soil.

2. Sprinkle Vapam at rate of 1 pint in 5 gallons of water per 100 sq. ft. of surface area.  
3. Layers can be treated one on top of another.  
4. Sprinkle top layer with sufficient additional water to seal the surface, or cover with tarp (plastic, kraft paper, etc.).

**B. SHREDDER:**

1. Dilute Vapam in sufficient water to obtain even distribution. As soil is ejected from shredder, spray uniformly on soil stream at rate of 1 fl. oz. Vapam per 2 cu. ft. of soil.  
2. After all soil is treated and piled, apply light water seal to entire surface or cover with tarp.

**TOBACCO PLANT BEDS:** Fall applications are recommended wherever possible. Read and follow DIRECTIONS FOR USE carefully. Treatment in the South should generally be made before November 30.

**A. TARP METHOD:** Prepare the bed 5 to 7 days before application to insure best conditions for weed seed germination and fumigant action of Vapam. The bed should be free of clods, level and in good tilth. Apply 1 to 1½ gal. of Vapam in a minimum of 40 gal. of water per 100 sq. yds. Apply uniformly over the entire bed. Cover the bed immediately with a plastic cover. Keep covered no less than one day, but no more than two days. The cover need not be tented, but should be secured to prevent wind from uncovering the treated area. Seven days after date of Vapam application, loosen the treated soil to a depth of 2 in. Do not seed tobacco earlier than 21 days after Vapam application.

**B. DRENCH METHOD:** Apply 2½ gal. Vapam in 150 to 200 gal. of water per 100 sq. yd. Application may be made with sprinklers, sprayers with nozzles or any suitable equipment. Follow directions given above for seed bed treatment.

**SYMPHYLID CONTROL:** Soil should be in good seed bed condition to a depth of 8 to 10 inches. Maintain adequate moisture during spring season. Treat during July-August when symphyliids are in the upper soil surface. Apply 20 gal. Vapam per acre using blade or chisel injector. Inject below level of symphyliid concentration, usually 6 to 8 inches. Pack soil immediately after application.

**EARLY MATURITY DISEASES OF POTATOES IN OREGON:** Apply 40 gals. Vapam per acre using thin shank injector rig.

**PEPPERMINT—Verticillium wilt control:** When infestation is limited to small spots in a field, spread can be reduced by treating the soil with 100 gals. Vapam per acre using injector blade or thin shank injector rig.

**NOTICE:** Agricultural Chemicals of Dallas 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 Agricultural Chemicals of Dallas's label.

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