

ACCEPTED
464-239
NOV 29 1974
FOR RECORDING AND INDEXING
EPA UNDER NO. 464-239-ZA SUBJECT
TO ATTACHED COMMENTS



ACTIVE INGREDIENTS:
1,3-Dichloropropane, 1,2-Dichloropropane,
and related chlorinated aliphatics 99%
INERT INGREDIENTS 1%
EPA Registration No. 464-239-ZA
EPA Est. No. 33780-SC-1, 464-TY-1, 464-CA-1
Superscript used corresponds to letter in Lot No.

DANGER

KEEP OUT OF REACH OF CHILDREN
HAZARDOUS LIQUID AND VAPOR - MAY BE FATAL
IF INHALED, ABSORBED THROUGH SKIN OR
SWALLOWED - CAUSES BURN OF SKIN OR EYES
Do Not Get in Eyes, on Skin, or on Clothing. Wear Eye
Protection Appropriate to the Circumstances When
Handling This Material. Wash Thoroughly after Hand-
ling and Before Eating and Smoking. Wash Contami-
nated Clothing and Air Contaminated Shoes Thor-
oughly Before Reuse. Use Only with Adequate Ven-
tilation. Do Not Breathe Vapor.

COMBUSTIBLE - DO NOT USE, POUR, SPILL
OR STORE NEAR HEAT OR OPEN FLAME

VIDDEN^{*} D

SOIL FUMIGANT

A Clean, Clear, Non-Clogging Liquid for Preplant Treatment
of Crop Lands to Control Plant Parasitic Nematodes and Certain Other Soil Pests

FIRST AID TREATMENT—ANTIDOTE
In case of contact, immediately remove contaminated
clothing and shoes and wash skin with soap and plenty
of water. **For eyes,** flush with flowing water for at least
15 minutes and get medical attention.
In case of spillage indoors have available an approved
full face mask equipped with a fresh black canister
meeting specifications of the U.S. Bureau of Mines for
organic vapors, a full face self contained breathing
apparatus or full face air-supplied respirator.
If inhaled, remove to fresh air. Use artificial respiration
if breathing has stopped. Get immediate medical atten-
tion. Keep patient absolutely quiet.
If swallowed, call a doctor. Induce vomiting by giving
an emetic such as 2 flat teaspoonfuls of table salt in a
glass of warm water.

AGRICULTURAL CHEMICAL

Do Not Ship or Store with Food, Feeds, or Clothing

PRECAUCION AL USUARIO Si usted no lee inglés,
no use este producto hasta que la etiqueta le haya sido
explicado ampliamente.

TRANSLATION TO THE USER If you cannot read
English do not use this product until the label has
been fully explained to you.



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THE DOW CHEMICAL COMPANY

AND SUBSIDIARIES

MIDLAND, MICHIGAN 48640, USA ZURICH, SWITZERLAND HONG KONG, BCC
CORAL GABLES, FLORIDA 33134, USA SARNIA, ONTARIO, CANADA

* Trademark of THE DOW CHEMICAL COMPANY

86-1141 PRINTED IN U.S.A. IN SEPTEMBER, 1974

REPLACES SPECIMEN LABEL 86-1141 PRINTED IN NOVEMBER, 1973

REVISIONS INCLUDE: (1) EPA ESTABLISHMENT NUMBERS ADDED
(2) AGRICULTURAL CHEMICAL STATEMENT ADDED (3) DOT
FLAMMABLE LIQUID LABEL ADDED.

VIDDEN D

SOIL FUMIGANT

SPECIMEN LABEL
BACK

GENERAL INFORMATION

Use VIDDEN D soil fumigant only as a preplanting soil treatment to control plant parasitic nematodes (rootknot, meadow (lesion), citrus, cyst formers (golden sugar beet, soybean), burrowing (ring, spiral, sting, pin, stubby root, stilet, dagger, and certain others), also to control wireworms and garden centipedes (symphylans). Fumigate land to be planted to the crops listed below by applying VIDDEN D under the conditions recommended under DIRECTIONS FOR USE, DOSAGE AND USE RECOMMENDATIONS, and USE PRECAUTIONS. Read the entire label before using VIDDEN D.

Vegetable Crops:

| | | | | |
|------------------|-------------|----------------|----------|-----------------|
| asparagus | cauliflower | horseradish | parsnips | shallots |
| beans | celery | kale | peas | spinach |
| beets | collards | kohlrabi | peppers | squash (summer) |
| blackeyed peas | corn | leeks | pimentos | squash (winter) |
| broccoli | cowpeas | lettuce | potatoes | sweet potatoes |
| brussels sprouts | cucumbers | melons | pumpkins | swiss chard |
| cabbage | egg plant | mustard greens | radishes | tomatoes |
| cantaloupe | endive | okra | rutabaga | turnips |
| carrots | garlic | onions | salsify | watermelons |

Field Crops:

| | | | |
|-------------------|-----------|---------------|-------------|
| alfalfa | flax | oats | sorghum |
| barley | grasses | pasture grass | soybeans |
| birdsfoot trefoil | hops | peanuts | sugar beets |
| buckwheat | lespedeza | popcorn | sugar cane |
| clover | millet | rice | tobacco |
| corn | milfo | rye | vetch |
| cotton | mint | safflower | wheat |

Citrus Fruit Tree Planting Sites:

| | | | | | | |
|------------|----------|--------|-------|---------|------------|----------|
| grapefruit | kumquats | lemons | limes | oranges | tangerines | tangelos |
|------------|----------|--------|-------|---------|------------|----------|

Deciduous Fruit and Nut Tree Planting Sites:

| | | | |
|-------------|--------------|------------|--------------|
| almonds | dates | olives | plums |
| apples | figs | peaches | pomegranates |
| apricots | filberts | pears | prunes |
| cashew nuts | hazelnuts | pecans | quince |
| cherries | hickory nuts | persimmons | walnuts |
| chestnuts | nectarines | pineapple | |

Bush and Vine Planting Sites:

| | | | |
|---------------|--------------|---------------|--------------|
| blackberries | currants | huckleberries | youngberries |
| blueberries | deberries | loganberries | |
| boysenberries | gooseberries | raspberries | |
| cranberries | grapes | strawberries | |

Nursery Crops including floral plants, ornamentals, shrubs, and bushes, forest, shade fruit and nut trees and vine and bramble fruits of all types.

DIRECTIONS FOR USE

WHEN TO TREAT: Apply VIDDEN D either in the spring or fall, whenever soil type and conditions permit. For best results with annual crops, treat the soil each year. In northern states, late summer or early fall treatment (before October 15) is best for land to be planted to early spring crops, especially transplanted crops such as celery, tomatoes, and nursery and orchard stock. Early fall treatment permits planting a fall cover crop. **Note:** Treat muck soils only in the early fall and plant as late as possible in the spring. Treat fine textured (clay) soils only when they are near or at the wilting point. Do not use VIDDEN D to treat any type of soil when it is cold and/or wet.

SOIL PREPARATION: VIDDEN D gives best results when conditions permit rapid diffusion of the fumigant through the soil and the soil surface can be sealed to prevent excessive fumigant loss during the exposure period. The soil should be in good seed bed condition, free of clods and undecomposed plant material, moisture at about one half of field capacity, and temperature between 40° and 80° F at the depth of injection. If undecomposed plant debris is present it should be plowed down and allowed to decompose before applying VIDDEN D. Tillage deeper than 12 inches is necessary for good fumigant penetration in soils where a hard or "plow" pan occurs at plow depth. Where deep tillage is used, the tillage equipment may often be modified to simultaneously apply the fumigant and thus avoid going over the field twice.

APPLICATION: VIDDEN D may be applied either as an overall (broadcast) or row treatment, using suitable application equipment that will ensure placement of the fumigant at least 6 to 8 inches below the final soil surface. For overall application use either plowable or chisel equipment with the chisels spaced 12 inches apart. When the fumigant is injected at a depth of 12 inches or more (deep tillage) the chisel spacing may be up to twice the application depth but should not exceed 30 inches. Application may be made in the same direction or at an angle to the direction of the planting row, whichever is most convenient. For row application, use chisel equipment with one chisel per row or two chisels spaced 12 inches apart to treat only the soil where the crop is to be planted. When one chisel per row is used, adjust the fumigant flow rate to distribute about 1 1/2 times more fumigant per chisel than is recommended for overall application. When two chisels are used per row, apply at the same flow rate per chisel as for overall. In both cases, the amount of fumigant required per acre will decrease as the distance between rows is increased and vice versa. At time of planting, avoid placing the seed row directly over the furrow left by the applicator chisel. When a single chisel is used per row, place the seed 3 to 4 inches to one side of the chisel furrow; when two chisels are used, plant in the center of the area between the chisel furrows.

EXPOSURE PERIOD

See label.

EXPOSURE PERIOD

See label.

AERATION AND PREPARATION OF SOIL BEFORE PLANTING

See label.

See label.

See label.

See label.

See label.

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DOSAGE AND USE RECOMMENDATIONS

to control Nematodes, Symphylans, and Wireworms

| Crops (consult list of individual crops under General Information) | Type of Treatment ^a | Soil Type | Dosage | |
|--|--------------------------------|--------------|-------------------------------|--------------------------------|
| | | | Gallons Per Acre ^b | Fl Oz / 1000 ft Row Per Chisel |
| Shallow Rooted Plants | | Mineral | 7 1/2 to 10 | 77 to 103 |
| Field Crops | Row (42") | Muck or Peat | 15 to 20 | 154 to 206 |
| Floral Crops | Overall | Mineral | 15 to 25 ^c | 44 to 73 |
| Grasses and Turf | Broadcast | Muck or Peat | 40 to 60 | 117 to 176 |
| Small Fruits | Overall | Mineral | 40 to 60 | 117 to 176 |
| Vegetables | | | | |
| Ornamentals | Row (42") | Mineral | 9 | 93 |
| Strawberries | Overall | Mineral | 20 to 25 | 59 to 73 |
| Sugar Beets | Row (42") | Mineral | 15 | 154 |
| Root Knot Nematode | Overall | Mineral | 20 to 30 | 59 to 88 |
| Sugar Beet Nematode | Row (42") | Mineral | 40 to 60 | |
| Pineapple ^d | Row | Mineral | 60 | 176 |
| Citrus, Florida ^e | Overall | Mineral | | |

Overall: Gallons Per Acre to Penetrate Various Depths

| | Mineral Soil | 3 ft | 4 ft | 5 ft | 6 ft |
|---------------------------|--------------|------|------|------|------|
| Nursery and Field | | | | | |
| Citrus Fruit Trees | | | | | |
| Deciduous Fruit Trees | Sand | 25 | 35 | 45 | 55 |
| Forest Trees | Sandy Loam | 45 | 50 | 60 | 80 |
| Grapes | Silt Loam | 70 | 85 | 105 | 125 |
| Nut Trees | Clay Loam | 90 | 115 | 140 | 170 |
| Ornamentals (deep rooted) | | | | | |

- Use the higher rates in heavier soil.
- For cyst forming nematodes increase dosage to 10 gallons per acre (88 fl oz / 1000 ft row per chisel).
- For soils with less than 10% organic matter use 30 gallons per acre.
- For Row or pineapple application may be made at time of or just before planting.
- For burrowing nematode in citrus report on 18 inch centers, 12 inch deep. Keep free of plants except for burrowing nematode for 2 years before replanting to citrus.
- Row treatment is not recommended for potatoes in irrigated areas of west and north western states.
- The VIDDEN D is an aid in the control of bacterial canker and decline of peach trees by application as a preplant overall treatment of light sandy soils at the rate of 40 to 60 gallons per acre (117 to 176 fl oz / 1000 ft row per chisel) preferably in the fall when the soil is warm. 50 to 85 fl oz / 6 inch depth and inject the fumigant at a depth of 10 to 12 inches with chisels mounted on 12 inch centers. Follow directions for soil preparation, sealing, exposure, and aeration as specified elsewhere on this label.

NOTE: To control symphylans (garden centipedes) use only amount of 10 to 15 gallons per acre and apply during late summer or early fall when the soil is warm. To control wireworms use the higher dosages recommended for the nematodes in row or broadcast treatments.

Do not use containers, pumps, or other transfer equipment made of aluminum, magnesium or their alloys as under certain conditions VIDDEN D may be severely corrosive to such metals.

Do not use VIDDEN D in areas where it may be injurious to plants, animals, or humans.

Do not use VIDDEN D in areas where it may be injurious to fish, shellfish, or aquatic life.

Do not use VIDDEN D in areas where it may be injurious to birds, bees, or other beneficial insects.

Do not use VIDDEN D in areas where it may be injurious to soil microorganisms.

Do not use VIDDEN D in areas where it may be injurious to soil structure.

Do not use VIDDEN D in areas where it may be injurious to soil fertility.

Do not use VIDDEN D in areas where it may be injurious to soil pH.

Do not use VIDDEN D in areas where it may be injurious to soil salinity.

Do not use VIDDEN D in areas where it may be injurious to soil moisture.

Do not use VIDDEN D in areas where it may be injurious to soil temperature.

Do not use VIDDEN D in areas where it may be injurious to soil oxygen.

Do not use VIDDEN D in areas where it may be injurious to soil carbon dioxide.

Do not use VIDDEN D in areas where it may be injurious to soil nutrients.

Do not use VIDDEN D in areas where it may be injurious to soil enzymes.

Do not use VIDDEN D in areas where it may be injurious to soil hormones.

Do not use VIDDEN D in areas where it may be injurious to soil vitamins.

Do not use VIDDEN D in areas where it may be injurious to soil minerals.

Do not use VIDDEN D in areas where it may be injurious to soil organic matter.

Do not use VIDDEN D in areas where it may be injurious to soil humus.

Do not use VIDDEN D in areas where it may be injurious to soil clay.

Do not use VIDDEN D in areas where it may be injurious to soil silt.

Do not use VIDDEN D in areas where it may be injurious to soil sand.

Do not use VIDDEN D in areas where it may be injurious to soil gravel.

Do not use VIDDEN D in areas where it may be injurious to soil rocks.

Do not use VIDDEN D in areas where it may be injurious to soil shells.

Do not use VIDDEN D in areas where it may be injurious to soil bones.

Do not use VIDDEN D in areas where it may be injurious to soil teeth.

Do not use VIDDEN D in areas where it may be injurious to soil hair.

Do not use VIDDEN D in areas where it may be injurious to soil nails.

Do not use VIDDEN D in areas where it may be injurious to soil muscles.

Do not use VIDDEN D in areas where it may be injurious to soil nerves.

Do not use VIDDEN D in areas where it may be injurious to soil glands.

Do not use VIDDEN D in areas where it may be injurious to soil organs.

Do not use VIDDEN D in areas where it may be injurious to soil systems.

Do not use VIDDEN D in areas where it may be injurious to soil structures.

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Do not use VIDDEN D in areas where it may be injurious to soil relationships.

Do not use VIDDEN D in areas where it may be injurious to soil networks.

Do not use VIDDEN D in areas where it may be injurious to soil communities.

Do not use VIDDEN D in areas where it may be injurious to soil ecosystems.

Do not use VIDDEN D in areas where it may be injurious to soil biomes.

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