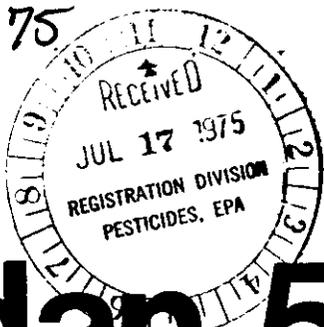


279-1380

8-25-1975

1/2



Code 190

Net Weight 50 Lbs.

# Thiodan 50 WP

## Insecticide

EPA REG. NO. 279-1380AA EPA Est., 279-NY-1

Active Ingredient:	
*Endosulfan (Hexachlorohexahydromethano-2,4,3-benzodioxathiepin oxide)	50.0%
INERT INGREDIENTS:	50.0%
*Thiodan, U.S. Pat. No. 2,799,685	100.0%

Thiodan is a registered trademark of Canadian Hoechst Limited

## WARNING

### KEEP OUT OF REACH OF CHILDREN.

Not for use or storage in or around the home.

Hazardous If Swallowed, Inhaled or Absorbed Through Skin! Do not breathe the dust or spray mist. Do not get in eyes, on skin or on clothing. In case of contact, immediately remove contaminated clothing and flush skin or eyes with plenty of water; for eyes, get medical attention. Wash thoroughly with soap and water after handling and before eating or smoking; wear clean clothing. During commercial or prolonged exposure in spray-mixing and loading operations, wear clean synthetic rubber gloves and a mask or respirator of a type passed by the U. S. Bureau of Mines for endosulfan protection. Do not apply or allow to drift to areas occupied by unprotected humans or beneficial animals.

**Note to physicians:** Thiodan is a central nervous system stimulant and may cause convulsions. There is no specific antidote. Barbituric acid derivatives may be used in treatment.

**For Emergency Assistance Call 716-735-3765.**

Workers entering treated fields within 24 hours of application should wear protective clothing.

This product is toxic to fish and wildlife. Keep out of any body of water. Birds feeding on treated areas may be killed. Do not apply when weather conditions favor drift from areas treated. 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 the label.

This product is toxic to bees and should not be applied when bees are actively visiting the area.

Rinse equipment and DISPOSE OF WASTES by burying in non-crop lands away from water supplies. Container should be disposed of by burying with wastes or by burning. Keep out of smoke.

**Dealers Should Sell in Original Packages Only.**

**Terms of sale or use:** On purchase or use of this product buyer and user agree to the following conditions:

**Warranty:** FMC warrants that this product, as of the time of sale by FMC, (1) conforms to the ingredient statement on the label, and (2) is reasonably fit for the purposes set forth in the Directions for Use. **Except as so warranted the product is sold as is. FMC makes no other warranty express or implied.**

**Damages:** Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages. Notice of any claim must be reported to FMC within 10 days of discovery by buyer or user, failing which buyer or user waives any claim for such damage.

**Excuse from non-controllable conditions:** Because of certain critical conditions created or incurred by buyer or user or over

which FMC has no control, buyer and user, as a condition of purchase or use, assume responsibility for and release FMC from, liability arising out of the handling or use of the product attributable to such causes. No person is authorized to vary or waive any statement contained herein.

## Directions for use

**Not for use or storage in or around the home.**

Apply the listed amount per acre when insects first appear and repeat as required to maintain effective control. Depending upon the type of equipment used, apply in sufficient water for thorough coverage, unless otherwise noted, for listed crops. Coverage of upper and lower leaf surfaces is essential for good control. Observe use limitations. If insect control is required beyond the following use patterns, supplement the control program with other suitable pesticides. Observe days interval between last application and harvest indicated by number in ( ) following the crop.

**Apples [21]:** Apple Aphid, Rosy Apple Aphid — Use 1 lb. per 100 gals. of water or a maximum of 4 to 5 lbs. per acre during the fruiting period. Do not exceed 3 applications during the fruiting period. If necessary use 1 1/2 lbs. per 100 gals. prior to petal fall. **White Apple Leafhopper** — For control of first generation use 1 lb. per 100 gals. of water; 4 to 5 lbs. per acre. Apply when nymphs first appear on the leaves.

— OR —

**Apples [30]:** Apple Rust Mite, Woolly Apple Aphid — Use 1 lb. per 100 gals. of water or a maximum of 8 lbs. per acre during the fruiting period. (For State of Washington dosage may be reduced to 0.75 lb. per 100 gallons of water or a maximum rate of 6 lbs. per acre. Do not exceed 2 applications during the fruiting period.)

**DO NOT FEED POMACE FROM TREATED APPLES TO LIVESTOCK.**

**Apricots [30], Nectarines [30], Peaches [30]:** Cat-facing Insects (Stink Bug type), Green Peach Aphid, Peach Twig Borer — Use 1 lb. per 100 gals.; 4 to 5 lbs. per acre. (8 lbs. per acre West Coast.) **Black Cherry Aphid, Black Peach Aphid, Rusty Plum Aphid** — Use 1 lb. per 100 gals.; 4 to 5 lbs. per acre. **Lesser Peach Tree Borer** — Use 1 1/2 lbs. per 100 gals. thoroughly wetting trunk and main branches. **Peach Silver Mite** — Use 1/2 lb. per 100 gals.; 4 to 5 lbs. per acre. Do not exceed 2 applications during fruiting season.

— OR —

**Apricots [21], Nectarines [21], Peaches [21]:** Peach Tree Borer — Use 1 1/2 lbs. per 100 gals. (1 lb. per 100 gals. on West Coast.) Spray all bark from ground to scaffold branches. For Peach Tree Borer control on peaches in Southeastern states, apply 3 to 5 lbs. per 100 gals. post-harvest. Best control is obtained with a single application during the first week of September. Spray all bark areas from ground level to scaffold limbs.

**Cherries [21]:** Black Cherry Aphid, Plum Rust (Nursery) Mite — Use 1 lb. per 100 gals.; 4 to 5 lbs. per acre. **Peach Tree Borer** — Use 1 1/2 lbs. per 100 gals. (1 to 1 1/2 lbs. per 100 gals. West Coast) and thoroughly wet all bark from ground to scaffold branches. **Time application with moth flight. Lesser Peach Tree Borer** — Use 1 1/2 lbs. per 100 gals.; 4 to 5 lbs. per acre thoroughly wetting trunks and main branches. **For Eye-spotted Bud Moth and Fruit-tree Leaf Roller (Pacific Northwest only)** — Use 1 lb. per 100 gals. at "popcorn" stage for bud moth control and during pre-pink stage of growth for leaf roller control. **For control of Mineola Moth (Michigan Only)** — Use 2 lbs. per 100 gals. in the delayed dormant period. Do not exceed 2 applications after shuck split.

**Cherry, Peach, Plum Nursery Stock:** Peach Tree Borer — Use 4 lbs. per 40 gals. water. Mix thoroughly. Wear rubber gloves during dipping operation. Immerse trees so that roots and crowns are covered well above grafting bud scar. Plant immediately or dry before returning stock to storage.

**Citrus, Nursery and Non-Bearing Stock:** Citrus Aphid — Use 1/2 lb. per 100 gals.; 5 lbs. per acre. Do not apply to bearing trees or to trees that will bear fruit within twelve months.

**Grapes [7]:** Grape Leafhopper, Grape Phylloxera (leaf form), Rose Chafer - Use 1 lb. per 100 gals.; 2 to 3 lbs. per acre. Do not use on Baco No. 1, Baco Noir, Concord, Seibel 7053 (Chancellor), Seibel 8357 (Colobel), Seibel 13053 (Cascade) varieties of grapes as severe injury is likely to occur.

**Pears [7]:** Consperse Stink Bug: **GROUND TREATMENT** — Use 1 lb. per 100 gals.; 200 to 400 gals. per acre applied to orchard floor around trees prior to bloom. Do not graze livestock in treated orchards. **Consperse Stink Bug: (FOLIAR TREATMENT), Pear Rust Mite** — Use 1 lb. per 100 gals.; 4 to 5 lbs. per acre. Do not

ACCEPTED  
AUG 25 1975  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under 279-1380



**FMC Corporation**  
**Agricultural Chemical Division**  
**Middleport New York 14105**

exceed 2 applications during the fruiting period. Stink bugs must be wet by spray to obtain control.

**Pear Leaf Blister Mite** — Apply 1/2 to 1 lb. per 100 gals. as a post harvest or dormant treatment.

**Pear Psylla** — Use 5 lbs. per acre in a minimum of 10 gals. of water by aerial application or in 40 gals. of water for semi-concentrate or in 300 gals. of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control. Do not exceed 5 applications during the fruiting period. Do not apply within 21 days of harvest, except if only 2 applications are made during the fruiting period, may be applied up to 7 days prior to harvest.

**Plums [7], Prunes [7]:** Fruit-tree Leaf Roller (Pacific Northwest Only) — Use 1 lb. per 100 gals.; 4 to 5 lbs. per acre. Apply during pre-pink stage of growth. Hop Aphid, Leaf Curl Plum Aphid, Plum Rust (Plum Nursery) Mite, Thistle Aphid — Use 1 lb. per 100 gals.; 4 to 5 lbs. per acre. For aphids, apply when eggs hatch during pre-bloom or petal fall. Summer applications should be made before leaves curl. Lesser Peach Tree Borer — Use 1 1/2 lbs. per 100 gals.; 4 to 5 lbs. per acre. Apply spray to thoroughly wet trunk and main branches. Peach Tree Borer — Use 1 1/2 lbs. per 100 gals.; 4 to 5 lbs. per acre except West Coast use 1 to 1 1/2 lbs. per 100 gals. Spray thoroughly to cover all bark areas from ground to scaffold limbs. Peach Twig Borer — Use 4 to 5 lbs. per acre.

**Beans [3], [Succulent and Dry, Southern Field Peas]:** Black Bean Aphid, Bean Leaf Skeletonizer, Cucumber Beetles, Green Stink Bug, Mexican Bean Beetle, Cowpea Curculio — Use 1 to 2 lbs. per acre. Do not exceed 3 applications per season. Do not feed treated threshings to livestock or allow to graze in treated fields. Do not use on Lima Beans that are to be removed from the field for processing. For control of cowpea curculio make 3 applications at 5 day intervals, starting when the pods are 1/2 inch long.

**Broccoli [7], Cabbage [7], Brussels Sprouts [14], Cauliflower [14]:** Cabbage Aphid, Cabbage Looper, Imported Cabbage Worm, Diamondback Moth Larvae, Cross-striped Cabbage Worm, Flea Beetles, Harlequin Bugs, Stink Bugs — Use 1 1/2 to 2 lbs. per acre. Armyworm, Cutworm — Use 2 lbs. per acre.

**Carrots [7]:** Green Peach Aphid — Use 1 to 2 lbs. per acre. Do not use tops for food or feed. Do not exceed 2 applications per season. Do not plant root crops other than carrots, potatoes, sugar beets, and sweet potatoes as follow-up crops.

**Celery [4]:** Green Peach Aphid, Cabbage Looper — Use 1 to 2 lbs. per acre. Do not exceed 3 applications. — OR — [7]: Green Peach Aphid — Use 1 lb. per acre. Unlimited number of applications.

**Collards [21]:** Cabbage Looper, Diamondback Moth Larvae, Harlequin Bug, Imported Cabbage Worm — Use 1 1/2 lbs. per acre. Do not exceed one application.

**Cotton:** Cotton Leaf Perforator — Use 2 lbs. per acre. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields.

**Cucumbers [0], Melons [0], Summer and Winter Squash [0]:** Aphids, Cucumber Beetle, Striped Flea Beetle, Melonworm, Pickleworm, Rindworm (on watermelons), Squash Beetle, Squash Bug, Squash Vine Borer — Use 1 to 2 lbs. per acre. For Vine Borer control, apply weekly to flower buds, stems, and vines beginning when moths first appear. For Cabbage Looper and Omnivorous Leaf Roller on Melons use 2 lbs. per acre.

**Eggplants [1]:** Blister Beetle, Colorado Potato Beetle, Flea Beetle, Green Peach Aphid, Green Stink Bug, Whitefly — Use 1 lb. per acre.

**Kale [21]:** Cabbage Flea Beetle, Imported Cabbage Worm, Harlequin Bug — Use 1 1/2 lbs. per acre. Do not exceed one application per season.

**Lettuce [14]:** Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm — Use 1 1/2 to 2 lbs. per acre. On Head Lettuce, do not exceed 3 applications after thinning. Remove wrapper leaves at harvest. Do not feed crop refuse to livestock. On Leaf Lettuce, do not exceed 2 applications per season.

**Mustard Greens [21]:** Aphids, Cabbage Looper, Imported Cabbage Worm — Use 1 1/2 lbs. per acre. Do not exceed one application per season.

**Peas, succulent [0]:** Pea Aphid, Pea Weevil — Use 1 to 2 lbs. per acre. Do not exceed 2 applications during the fruiting period. Use only on peas to be harvested by combine. Do not feed treated vines to livestock or allow to graze in treated fields.

**Peppers [4]\*:** Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot — Use 1 to 2 lbs. per acre. \*1 day if no more than 1 lb. per acre is used.

**Potatoes [0]:** Aphids, Colorado Potato Beetle, Green Stink Bug, Leaf-footed Bug, Potato Flea Beetle, Potato Leafhopper, Potato Tuberworm, Southern Armyworm, Whitefly — Use 1 to 2 lbs. per acre. European Corn Borer, Potato Psyllid — Use 1 1/2 to 2 lbs. per acre. False Chinch Bug — Use 2 lbs. per acre. Threelined Potato Beetle — Use 1 lb. per acre. Do not plant root crops other than carrots, potatoes, sugar beets, and sweet potatoes as follow-up crops.

**Pumpkins [0]:** Aphids, Cucumber Beetle, Squash Vine Borer — Use 1 to 2 lbs. per acre. For vine borer, apply weekly to flower buds, stems and vines, beginning when moths first appear.

**Safflower:** Green Peach Aphid — Use 2 lbs. per acre. Do not apply after flower heads open.

**Spinach [21]:** Green Peach Aphid, Crown Mite — Use 1 1/2 lbs. per acre. Do not exceed one application per season.

**Strawberries [4]:** Tarnished Plant Bug, Meadow Spittlebug, Strawberry Aphid — Use 2 lbs. per acre. Do not re-apply within 15 days or more than twice during any 35 day period when fruit is present. Cyclamen Mite — Thoroughly wet the foliage, stem, and crowns of the plant. For multiple applications, do not apply at intervals less than 35 days during the fruiting period. West Coast — Use 8 lbs. in 800 gals. water per acre. Other areas — Use 1 lb. per 100 gals.; 4 lbs. per acre in 400 gals. of water.

**Sugar Beets [30]:** Green Peach Aphid, Meadow Spittlebug — 1 to 2 lbs. per acre; Sugar Beet Webworm — 1 1/2 to 2 lbs. per acre. Make 1 or 2 applications as needed for control. Do not feed treated tops to livestock. Do not plant root crops other than carrots, potatoes, sugar beets and sweet potatoes as follow-up crops.

**Sunflower [0]:** Sunflower Moth — Use 2 lbs. per acre. Do not exceed 3 applications. Make the first application at the onset of bloom and make two more applications at 4 to 7 day intervals. Do not feed treated forage to livestock.

**Sweet Potatoes [South Central States Only]:** Banded Cucumber Beetle Larvae (aids in control of) — Apply 2 to 4 lbs. per acre broadcast, or 3/4 to 1 1/2 lbs. per acre in a 16 inch band over the row (48 inch spacing). Work into the soil to a depth of approximately 3 inches. A single treatment should be made just prior to plant set. Do not feed treated potatoes to livestock. Do not plant root crops other than carrots, potatoes, sugar beets, and sweet potatoes as follow-up crops.

**Tobacco [5]:** Budworm, Cabbage Looper, Flea Beetle, Green Peach Aphid, Hornworm — SEED BED: Use 1 lb. per 100 gals. Apply about 6 gallons of finished spray per 100 square yards. FIELD: Use 1 to 2 lbs. per acre to control above insects. For Stink Bugs — Use 2 to 3 lbs. per 100 gals. PLANT BED: Green June Bug Larvae — Use 1/2 lb. per 100 gals. drenching at rate of 1 gal. per sq. yd.

**Tomatoes [Field and Greenhouse] [1]:** Blister Beetle, Colorado Potato Beetle, Flea Beetle, Green Peach Aphid — Use 1 lb. per acre. Hornworm — Use 1 to 2 lbs. per acre. Tomato Fruitworm, Yellow-striped Armyworm — Use 2 lbs. per acre. Cabbage Looper, Stink Bugs — Use 1 1/2 to 2 lbs. per acre. Whitefly — Use 1 lb. per 100 gals.; 100 to 200 gals. per acre.

**Almond:** Peach Twig Borer — Use 4 to 5 lbs. per acre for control of early season infestation. Apply during popcorn, pink or petal fall in a minimum of 200 gals. dilute or 40 gals. per acre concentrate. (For areas less than one acre use 1 lb. per 100 gals.) Do not exceed one application per season.

**Filberts [0]:** Filbert Aphid — Use 1 lb. per 100 gals. or 3 to 4 lbs. per acre. Filbert Leafroller — Use 3 to 4 lbs. per acre. Do not graze livestock in treated groves.

**Macadamia Nut [0]:** Southern Green Stink Bug — Use 2 lbs. per 100 gals. Do not graze livestock in treated groves.

**Pecans:** Black Pecan Aphid, Pecan Nut Casebearer, Spittlebug — Use 1 1/2 lbs. per 100 gals. Do not apply after shuck split. Do not graze livestock in treated groves. For casebearer apply when eggs of first generation appear on tips of the young nuts. Another application may be required after second generation eggs are deposited. For spittlebug, apply when first leaves are half-grown and repeat as required.

**Walnut:** Walnut Aphid — Use 3 to 4 lbs. per acre. Do not apply after husk split. Do not graze livestock in treated groves.

**Dogwood, Lilacs:** Dogwood Borer, Lilac Borer — Use 1 to 2 lbs. per 100 gals. Apply in early June and repeat in 10 to 14 days. Drench all bark areas down to the ground level.

**Leatherleaf Fern:** Leatherleaf Fern Borer — Use 1 lb. per 100 gals. Begin treatment when first larvae feeding is observed in the mid-vein area at the base of the leaflets. Repeat at intervals of 2 to 3 weeks as necessary.

**Ornamentals [greenhouse & out of doors]:** Aphid, Cyclamen Mite, Rose Chafer, Whitefly — Use 1 lb. per 100 gals. On Chrysanthemums, best results will be obtained if applied before plants flower.

Do not use on Birch Trees. In greenhouse wear mask or respirator approved for Endosulfan protection.

**Taxus:** Taxus Bud Mite — Use 1 lb. per 100 gals. Apply 3 to 5 applications beginning in mid-May. Spray foliage, twigs and bark. Black Vine Weevil — Use 2 lbs. per 100 gals. Spray thoroughly and drench soil under plants. Apply when weevils first appear. Repeat in 14 days.

**Pines [Austrian, Jack, Red, Scotch, White]:** Zimmerman Pine Moth — Use 1 1/2 lbs. per 100 gals. Apply in mid-April and again, if necessary, in late fall. Thoroughly wet bark and main stem especially where branches join main stem.