



THIOBEN 90
FUNGICIDE – MITICIDE
FOR DUSTING

ACTIVE INGREDIENT:

Sulfur 90.0%

INERT INGREDIENTS: **10.0%**

TOTAL 100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rise slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for further treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.</p>	
NOTE TO PHYSICIAN	

See side/back panel for additional "Precautionary Statements."

EPA Reg. No. 82571-1

EPA Est. No.071953-TX-1

Manufactured by: **Martin Operating Partnership, LP**

Net Weight

P.O. Box 191, Kilgore, TX 75663

50 Lbs. (22.68 kg)

PRECAUTIONARY STATEMENTS
CAUTION
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

"May be harmful if swallowed, inhaled or absorbed through the skin. Avoid inhalation of vapors, spray or dust. Avoid contact with eyes, skin and clothing."

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters. Do not apply when weather conditions favor drift from areas treated. Do not apply where run-off is likely to occur.

PHYSICAL HAZARDS

Sulfur dust suspended in air ignites easily. Keep away from heat, sparks, or flame. Do not smoke while applying this product.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply this product through any type of irrigation system.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also

contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. Exception: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is coveralls, chemical resistant gloves made of any waterproof material, shoes plus socks, and protective eyewear.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store product in its original labeled container in a cool, dry, locked place out of reach of children.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

TO USE AS A DUST

Choose a suitable Hand or Power Duster as needed, or select a Certified Ground or Aerial Applicator who uses specialized dusting equipment designed to deposit the dust on all plant surfaces. For best results apply when wind velocity is below 5 mph. Observe precautions concerning use on sulfur sensitive plants and temperatures at the time of application.

WHEN TO USE - Apply to crops as needed in season when mites or diseases first appear and when insect "buildup" and plant disease damage are imminent. Repeat as directed for continued control. Contact your State Agricultural Extension Service for crop spray or dusting schedules which give the proper timing for applications in your locality.

**HOW MUCH DUST TO USE
WHEN TO APPLY THE LOWER
RECOMMENDED RATE**

1. During periods of minimal to moderate disease or insect infestation.
2. For regular season Cover Sprays.
3. When temperatures are up in the high 80s and low 90s.

**WHEN TO APPLY THE HIGHER
RECOMMENDED RATE**

1. When mites or the diseases are damaging the crop and when weather conditions are favorable for their continued damage.
2. When temperatures are below and will not exceed 90°F within the following 3 days after the application.

AS A DUST - The lower rate would be 50 lbs. of the 50 to 80 lb. rate per acre. The higher rate would be 80 lbs.

PRECAUTIONS

In order to obtain effective mite and disease control, both the upper and lower sides of plant foliage and fruit must be thoroughly covered with spray solution. Poor spray coverage will result in poor mite and disease control. When growing crops for "processing." Consult the processor before applying sulfur. Do not use on any crop unless sulfur has been shown to be safe for that crop in your locality. Sulfur may burn foliage when temperatures exceed 90°F. Sulfur will cause severe fruit and leaf injury to sensitive plants. Use only on varieties known to be tolerant to sulfur. Do not apply within 14 days of oil spray for all crops except CITRUS. FOR CITRUS do not apply within 21 days of an oil spray.

**CROPS AND APPLICATION RATES
AS A DUST FOR FRUIT AND NUTS**

ALMONDS, CHERRIES, PLUMS, PRUNES: For BROWN ROT, POWDERY MILDEW, LEAF SPOTS, SILVER MITES, FLAT MITES, SPIDER MITES. Use 10 to 30 lbs. per acre. Apply at bloom or early petal fall, repeat as necessary, usually 10 to 14 day intervals or after periods of wet weather for disease control. For BROWN ROT on CHERRIES use 40 to 50 lbs. per acre applied 2 to 3 weeks before harvest. FOR BROWN ROT and PRUNE ROT on Plums and Prunes use 30 to 35 lbs. per acre 5 weeks before harvest. Repeat each 7 days if wet weather prevails and disease threatens during the harvest period.

APPLES AND PEARS: For POWDERY MILDEW, SCAB, BLISTER MITES, SILVER MITES & SPIDER MITES. Use 10 to 30 lbs. per acre. Apply Pre-Bloom and Petal Fall. Apply with cover sprays as needed throughout the season. For SCAB use 30 to 35 lbs. per acre at "Green Tip" and again at "Pink Bud." Pink bud treatments will also control POWDERY MILDEW. Do not apply during or shortly before frost conditions. **PRECAUTION:** Certain varieties of apples and pears are sensitive to sulfur sprays under certain conditions. Do not apply unless the varieties are known to be tolerant of sulfur.

AVOCADO: For BROWN MITES use 10 to 30 lbs. per acre. Apply at the first sign of mite build up and repeat as needed for control or at 10 to 14 day intervals.

BLACKBERRY: (Rubus spp.) For RED BERRY MITE (*Acalitus essigi*). Start applications is early "bud swell" and repeat applications as necessary for mite control. Use 10 to 15 lbs. per acre.

BLACKBERRIES, BOYSENBERRIES, GOOSEBERRIES, LOGANBERRIES: To control POWDERY MILDEW. Apply 5 1/3 to 13 1/3 lbs. per acre. Begin when new shoots are 6 inches long and before blossoms are open or when disease first appears. Repeat at 7 to 10 day intervals or as necessary.

BLUEBERRIES, CURRANTS, DEWBERRIES, HUCKLEBERRIES: For control of POWDER MILDEW. Apply 4 1/2 to 9 lbs. per acre. Begin when new shoots are 6 inches long and before blossoms open or when disease first appears. Repeat at 7 to 10 day intervals or as necessary.

CITRUS: Citrus Flat Mite, Yuma Spider Mite, Six spotted Mite and Citrus Rust Mite. Apply when mites appear and repeat as necessary. Do not apply within 21 days of an oil spray.

CITRUS: AS A DUST for SIX SPOTTED MITE and CITRUS RUST MITE use 50 to 80 lbs. per acre. For CITRUS FLAT MITE use 80 to 100 lbs. per acre as needed. For YUMA MITE use 100 lbs. per acre. For CITRUS THRIP use 100 lbs. per acre in Mid March, Petal Fall and again 2 to 4 weeks later. Do not apply within 21 days of an oil spray.

DATES: To control BANKS GRASS MITES. Use 45 to 112 lbs. per acre, applying by ground or air. Use the higher rates by air. Thorough coverage is essential for good control.

FIG: AS A DUST for FIG RUST MITE use 40 lbs. per acre in spring and again in the early summer.

GRAPES: For POWDERY MILDEW, BUD MITES, BLISTER MITES, & SPIDER MITES. Apply in late dormant or with 1.) "Cutworm spray," 2.) in early shoot period; 3.) then through season at 14 day "cover spray" intervals or with or without pesticides. For POWDERY MILDEW use 6 to 20 lbs. per acre when shoots are 6, 12, & 18 inches long. Thereafter, repeat each 10 to 14 days to harvest. For RUST apply 15 to 20 lbs. per acre. Begin when new shoots are 6 inches long. Repeat before blossoms open and continue as necessary. **NOTE:** Concord and Labrusca type grapes may be injured by sulfur. Do not apply if temperatures during or shortly after treatment are expected to exceed 100°F.

MANGO: For POWDERY MILDREW. Apply 9 to 26 ½ lbs. per acre. Begin before bloom. Repeat in bloom, after fruit set and 3 weeks later or as necessary.

OLIVES: For BUD MITES. Use 2 pounds per acre. Apply at the first sign of mite build up and repeat for controls as needed or at 10 to 14 day intervals.

PEACHES, NECTARINES: For BROWN ROT, POWDERY MILDEW, SILVER MITES, and SPIDER MITES. Use 10 to 30 lbs. per acre. Apply at bloom or early petal fall. Repeat as necessary, usually 10 to 14 days intervals or after periods of wet weather for disease control. For POWDERY MILDEW use 50 pounds per acre at petal fall, 2 weeks later and again at beginning of pit hardening. For RUST and POWDERY MILDEW use 50 lbs. after pit hardening. For SILVER MITE use 25 to 35 lbs. per acre after thinning. For BROWN ROT use 50 to 60 lbs. per acre 4 weeks pre-harvest and again 2 weeks later.

PISTACHIOS: For MITES. Use 50 lbs. per acre, making ground or air applications. This product may be applied to non-bearing and bearing pistachio trees up to the day of harvest.

RASPBERRIES: For POWDERY MILDEW. Apply 6 to 15 lbs. per acre. Spray each week starting at first bloom color. Continue until all fruit is set, then repeat as weather requires.

STRAWBERRIES: For POWDERY MILDEW and RED SPIDER MITES. Start in early leaf stage and repeat applications at 10 to 14 day intervals or as necessary for control with or without pesticide sprays. Use 3 to 20 lbs. per acre pre-harvest. See WHEN TO USE.

WALNUTS: For PACIFIC MITE, ALMOND MITE, TWO SPOTTED MITE, RED SPIDER MITE. Apply 9 to 17 ¾ lbs. per acre and repeat as necessary. Apply with mite sprays during season to increase the effectiveness.

PRECAUTION: Certain varieties of walnuts are sensitive to sulfur sprays under certain conditions. Do not apply unless the varieties are known to be tolerant of sulfur.

AS A DUST FOR VEGETABLES

ASPARAGUS: For RUST. Apply 20-35 lbs. per acre. Begin after cutting stops. Repeat at 7-10 day intervals through season.

BEANS, PEAS, BROCCOLI, CABBAGE, CAULIFLOWER, COLLARDS, KALE and PEPPERS for POWDERY MILDEW and on BEANS, PEAS AND PEPPERS for SPIDER MITES.

Start in the early leaf stage. Repeat application every 10 to 14 days with or without pesticides or immediately after a rain. For POWDERY MILDEW & SPIDER MITES use 3 to 20 lbs. per acre. Do not apply to varieties susceptible to sulfur injury. See WHEN TO USE.

CARROTS, ONIONS AND GARLIC: For control of PETROBIA MITE. Use 25 to 30 lbs. per acre as needed for control. See WHEN TO USE.

CUCUMBERS, SQUASH: For POWDERY MILDEW. Apply 25 lbs. per acre when disease first appears and continue as necessary. **PRECAUTION:** Certain varieties of cucumbers and squash are sensitive to sulfur sprays under certain conditions. Do not apply unless the varieties are known to be tolerant of sulfur.

MELONS: For POWDERY MILDEW use 25 lbs. per acre. For SPIDER MITES use 20 to 50 lbs. per acre. Do not apply to varieties susceptible to sulfur injury. Melon foliage is extremely sensitive to sulfur burn. Observe use precautions and apply only when temperatures are well below 90°F. See paragraphs on WHEN TO USE and HOW MUCH SPRAY OR DUST TO USE.

POTATOES: For control of POWDERY MILDEW. Use 4 to 9 lbs. per acre. Apply at first sign of infection and repeat at three week intervals.

TABLE BEETS: For POWDERY MILDEW, RED SPIDER MITE. Apply 3 to 5 lbs. per acre at 10 to 30 day intervals with or without other possibilities as soon as the first symptoms appear.

TOMATOES: For RUSSET MITES. Thorough coverage of upper and lower sides of leaves and fruit is required for effective control. Apply when mites are present in damaging numbers and repeat at 10 to 14 day intervals as needed. Use 30 to 40 lbs. per acre. If crop is being grown with the aid of stakes or poles, apply 10 to 13 lbs. pre acre per foot of average plant height. (Plants 4ft. height=40 to 52 lbs. per acre.)

AS A DUST FOR FILED CROPS

CORN, BARLEY, OATS, RYE, SORGHUM, SOYBEANS, WHEAT: For suppression of RED SPIDER MITE, TWO-SPOTTED MITE, BANKS GRASS MITE, and PACIFIC MITE; for control of ATLANTIC MITE (small grain only) and for control of POWDERY MILDREW (soybeans only). Apply 30 to 50 lbs. per acre. For SOYBEANS, apply 6 2/3 to 11 1/8 lbs. per acre. Apply when disease first appears and repeat as necessary or with the regularly scheduled insect program.

COTTON and SEED ALFALFA: For MITES. Apply when mites first appear to build up on new growth and damage to plants is imminent. Thorough spray coverage must be made to the upper and lower portions of all foliage. On **COTTON** for ATLANTIC MITE use 15 to 50 lbs. per acre when first observed in flower heads and before defoliation has occurred. Repeat as needed. On **SEED ALFALFA** for ATLANTIC MITE, use 15 to 40 lbs. per acre when first observed in flower head and before defoliation of more than the bottom leaves has occurred. Repeat as needed throughout seed-set. May cause some flower burn. Use lower rate on immature plants.

GRASS SEED CROPS: For MITES, RUST. Apply 30 lbs. per acre. Apply when mites or disease first appear and repeat as necessary.

HOPS: SPIDER MITES, use 2 to 6 lbs. Start application in the early leaf stage and repeat as needed or at 10 to 14 day intervals.

PEANUTS: For POWDERY MILDEW, SPIDER MITES and LEAF SPOT diseases, apply 3 to 5 lbs. per acre. Start in the early leaf stage and repeat applications as necessary or at 10 to 14 day intervals.

SPEARMINT, PEPPERMINT: For POWDERY MILDEW. Apply 3 ½ to 5 1/3 lbs. per acre when mint is 5-6" tall or when disease appears. Repeat twice at 30 day intervals. Do not apply within 30 days of harvest.

SUGAR BEETS: For POWDERY MILDEW & SPIDER MITES: Apply at first signs of insects or disease. Repeat applications should be made at 10 to 30 day intervals or as necessary throughout the season. Under most disease conditions only one or two applications will be needed. For SPIDER MITES use 45 to 50 lbs. per acre. For POWDERY MILDEW use 25 to 50 lbs. per acre. For PUCCINIA RUST use 7 ½ to 12 ½ lbs. per acre. Apply at the first signs of disease. Repeat at 7 to 10 day intervals. This product may be applied by ground or air. Use the higher rate when applying by air. The use of this product in hot weather over 90°F may cause foliage burn. See paragraphs on HOW MUCH TO USE.

ORNAMENTALS

AS A DUST use 45 to 50 lbs. per acre for POWDERY MILDEW of **ALDER, AZALEA, BUTTONBUSH, CATALPA, CHRYSANTHEMUM, DAHLIA, DELPHINIUM, HONEYSUCKLE, HORSE CHESTNUT, HYDRANGEA, LILAC, LINDEN, MATRIMONY VINE, PHLOX, RHODODENDRON, ROSE, STAGHORN SUMAC, SWEETPEA, SYCAMORE, TRUMPET VINE, WITCH-HAZE, ZINNIA, RUSTS SPP. OF ASTER, CARNATION, CHRYSANTHEMUM, ROSE AND SNAPDRAGON.** Make full coverage applications on both sides of leaves. Begin before disease appears. Repeat at 7 to 10 days intervals. See WHEN TO USE. Apply to plant foliage, stems and flowers to leave a "barely visible" dust residue. Do not over apply during full sun or during times when temperatures exceed 90°F.

USE AS A SOIL AMENDMENT FOR pH ADJUSTMENT

After checking with your local Cooperative Agricultural Extension Service, your soil requirements should be obtained from a soil sample analysis. Many soils will respond to an application of Sulfur to decrease the pH (Acidity). If soils are known to respond to this treatment and Sulfur is recommended to amend the acidity, apply 1 to 2 lbs. of this product per 100 Sq. Ft. of soil surface. Do not apply more than 2 lbs. per 100 Sq. Ft. at one time. If more is needed, split the applications by applying the second increment in 6 to 8 weeks. For best results on small garden areas, rake or till the Sulfur into the top 4 to 6 inches of soil.

HOW MUCH TO USE ON SOIL

pH of Soil	Pounds of Sulfur per 100 Sq. Ft. of Soil. to Change pH to 5.2		
	Sandy Soil	Loam Soil	Muck or Peat
7.0	2	3	6
6.5	1	2	5
6.0	1	2	4

For (pH) treatment of individual plants 4 to 5 feet in height use 1 level tablespoonful per plant every 2 months. Do not apply sulfur during extremely hot (95°F) and humid days.

NOTICE

Buyer and user assume all risk and liability of use, storage and/or handling of this product not in accordance with the terms of this label.