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FRONT PANEL

Net Wt. 4, 6, 10, 50, 2000 Lbs.

TENNESSEE BRAND

TRI-BASIC COPPER SULFATE

ACTIVE INGREDIENT: Basic Copper Sulfate *. 98%
INERT INGREDIENTS 2%
(* Metallic copper equivalent . . . 53%)

Use of this Product in accord with this label:

- Application as fungicide on crops on this label.
- Manufacturing or formulating algicides, and fungicides for terrestrial crops or wood treatment.

12 pts — Keep out of reach of children

18 pts — WARNING/AVISO

Precaucion al usuario: Si usted no lee ingles, no use este producto hastaque ie etiqueta haya sido explicado ampliamento.

12 pts — PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS:
Causes temporary eye injury. Do not get into eyes or on clothing. Wear goggles. Harmful if swallowed. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. May cause skin sensitization in certain individuals.

ENVIRONMENTAL HAZARDS:
This product is toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water by cleaning of equipment or disposal of wastes.

12 pts — STATEMENT OF PRACTICAL TREATMENT

IF IN EYES, flush eyes with water. Seek medical attention if irritation persists. IF SWALLOWED, drink 1 or 2 glasses of water and induce vomiting by touching the back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons until spray has dried.

Front Panel - Continued

Use the higher rates and shorter spray intervals if disease potential is heavy. Spray to cover all plant surfaces.

See reverse side for other precautions, mixing directions and use recommendations. For specific information regarding the proper strength, time of application, and frequency of application to any particular crop in a local area consult the State Agricultural Experiment Station or State Extension Service Specialists. Observe all cautions and limitations on the label of all products used in mixtures.

TENNESSEE CHEMICAL COMPANY
Copperhill, Tennessee 37317

EPA Reg. No. 1109-13 EPA Est. No. 1109-TN-1
Form No. 9-13A86

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ADDITIONAL PRECAUTIONARY STATEMENTS

12 pts

ENVIRONMENTAL HAZARD STATEMENTS

8 pts

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water by cleaning of equipment or disposal of wastes.

8 pts

ENDANGERED SPECIES RESTRICTIONS: It is a violation of Federal laws to use any pesticide in a manner that results in the death of an endangered species or adverse modification of their habitat.

The use of this product may pose a hazard to certain Federally designated endangered species known to occur in specific areas within the following counties:

State (Bulletin No.)	Species	Counties Where Found
California (EPA/ES-85-13)	Solano Grass	Solano
Tennessee (EPA/ES-85-04)	Slackwater Darter	Lawrence, Wayne, Hancock
(EPA/ES-85-07)	Freshwater Mussels	Claiborne, Hawkins, Sullivan
Alabama (EPA/ES-85-05)	Slackwater Darter	Lauderdale, Limestone, Madison
Virginia (EPA/ES-85-06)	Freshwater Mussels	Grayson, Smyth, Scott, Washington, Lee

Before using this product in the above counties you must obtain the EPA Bulletin specific to your area. This Bulletin identifies areas within these counties where the use of this pesticide is prohibited, unless specified otherwise. The EPA Bulletin is available from either your County Agricultural Extension Agent, the Endangered Species Specialist in your State Wildlife Agency Headquarters, or the appropriate Regional Office of the U.S. Fish and Wildlife Service. THIS BULLETIN MUST BE REVIEWED PRIOR TO PESTICIDE USE.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

12 pts

RE-ENTRY STATEMENT

Do not enter treated area without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. The oral warning should be that workers shall not be in field during spraying and not return until sprays have dried on plants. If workers must be in field during this time, workers must wear goggles for eye protection and protective clothing including a hat or similar head covering, long sleeve shirt, long legged trousers, or a coverall type garment, all of closely woven fabric covering the body, arms, and legs, shoes and socks. If accidentally exposed, if in eyes flush eyes with plenty of water; if on body remove by washing and wash clothes before reuse. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: WARNING. Area treated with basic copper sulfate on (date of application). Do not enter without appropriate protective clothing until spray in treated area has dried on plants.

12 pts

Storage and Disposal

12 pts

STORAGE: Store product in a secure dry place and keep product dry. When opening, closing or handling open packages, or pouring product, wear goggles to prevent dusting into eyes. Spilled product should be swept up, used if clean, or disposed of on site and/or waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Store product only in original container. During storage, store pesticides separately to prevent cross contamination of other pesticides, fertilizers, food and feed.

12 pts

DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Do not reuse this container. 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, stay out of smoke.

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Mixing Directions and Recommendations For Use on Growing Crops.

Mixing Sprays: Fill the spray tank about 1/3 full of water and with agitator running add the required amount of Tri-Basic Copper Sulfate. Keep agitator running while adding remaining water and any other products to the spray tank. Continue agitation until spraying is finished and tank has been emptied. When mixed with other products proven or known to be compatible, generally add wettable powders first, followed in order by flowables, followed by emulsifiable concentrates.

Applying Spray Mixture: On most crops sprays can be applied with conventional dilute sprays, concentrate sprays, and aerial application unless specifically prohibited on the label. Recommended use rates are generally stated in lbs of Tri-Basic Copper Sulfate per acre sprayed. When using each type of sprayer follow that equipment manufacturer's recommendation, or that of the State Extension Service for the volume of spray water per acre on each crop. The recommended lbs of Tri-Basic Copper Sulfate for each crop should be mixed in sufficient spray water for thorough coverage of the crop being sprayed. The following spray volumes are general reference suggestions.

For conventional dilute spray apply spray to point of spray run off. On vegetable and field crops this is usually 100 or more gallons per acre and 250 to about 1000 gallons per acre for fruits and nuts depending on tree type, size and foliage.

For concentrate sprays volume depends on the concentration used and may approach that of a dilute volume. However generally on vegetable and field crops, use 5 or more gallons spray per acre, with 20 to about 40 gallons per acre being typical, and on fruits and nut trees use 25 or more gallons per acre depending on concentration and equipment used.

For aerial spray use 3 to 15 gallons per acre.

Tri-Basic Copper Sulfate can be applied up to day of harvest.

Fruits and Nut Crops

Almonds: Shot hole - Apply 14 to 20 lbs per acre with sticker. By dilute spray apply 350 to 400 gallons spray per acre. Apply higher rate as dormant spray (in California) December 15 to January 15 and repeat for Shot hole as well as Brown rot suppression using the lower rate and apply at pink bud to popcorn stages and again at full bloom and petal fall if trees are not in leaf. Spraying tender foliage may cause leaf injury.

Apricots: Shot hole (Stigmina or Coryneum blight) - Apply 14 to 20 lbs per acre with sticker. By dilute spray apply at 250 to 400 gallons per acre. Apply as dormant spray (in California) November 15 to January 15 for shot hole. Bud sprays for Brown rot suppression apply lower rate through swelling buds and popcorn stage. Do not spray trees in leaf. When bud blight is a problem, apply the maximum rate shown above after most of leaves have fallen in the fall, usually in November and December, but ahead of fall rains. Spray may injure tender foliage.

Avocados: Anthracnose, blotch, and scab - Apply 12 to 20 lbs per acre depending on tree size. Begin treatment when bloom buds open and repeat at 4 week intervals. Do not apply later than 140 days after bloom. In Florida, addition of a spreader-sticker such as Nu-Film 17 at its recommended rate may improve disease control.

Berries: (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries): Anthracnose - Apply 4 to 5 lbs per acre. Begin spray when leaf buds begin to open. Repeat when flower buds show white and continue at 10 to 14 day intervals. Leaf and Cane spot and Yellow rust - In spring sprays use 4 to 5 lbs per acre and apply when leaf buds begin to open and repeat when flower buds show white. Also make a post-harvest spray after pruning, but before fall rains begin to fall, using 12 to 15 lbs per acre combined with a spreader-sticker.

Cherries (all): To aid in control of Bacterial gummosis and canker (Pseudomonas) and Coryneum blight - At late leaf-fall apply 13 to 16 lbs per acre plus sticker. By dilute spray mix 3-1/4 lbs per 100 gallons of water with a sticker and apply a maximum of 500 gallons spray per acre. In dormant spray for Coryneum blight, apply 12 to 16 lbs (Northwestern states use 20 - 25 lbs) plus sticker per acre, or 5 lbs plus sticker per 100 gallons dilute spray and apply up to 500 gallons per acre.

Cherries (Sour only): For leaf fall and dormant sprays also see cherries (all above: For Brown rot and Blossom blight suppression (except Great Lakes states) apply 12 to 16 lbs per acre plus spreader-sticker and apply in red bud, popcorn, and late bloom stages. In Great Lakes area, for suppression of Bacterial canker (Pseudomonas syringae PV. morsprunorum) and spring applications for Blossom blight, leaf and fruit spots - Use 3 lbs per acre, or 1 lb per 100 gallons dilute spray. Begin sprays at bud burst stage and apply at weekly intervals to late May. Later sprays may be phytotoxic causing some leaf defoliation. Tri-Basic may be tank-mixed with Difolatan or other effective fungicides for leaf spot and brown rot control. For leaf spot other than Great Lakes states, apply 10 to 16 lbs per acre plus 10 to 16 lbs of hydrated lime and apply using lower rate at petal fall. Make two post-harvest sprays using higher rates. Do not apply non-dormant sprays to sweet cherries or the English Morelo variety as severe injury may result.

Citrus: For Melanose, Scab, Greasy spot, Alternaria brown spot and Pink Pitting of Grapefruit - Use 7 to 15 lbs per 500 gallons by dilute spray or 10 to 26 lbs per acre by aerial or concentrate sprayers, but not less than 10 gallons spray per acre. For scab suppression, make two applications, one just before trees begin to flush and repeat at 2/3 petal fall. For Melanose control apply 1 to 3 weeks after petal fall. Repeat 2 - 4 weeks later if necessary. For Greasy spot and Pink Pitting make a summer spray about July 15. For Alternaria brown spot on Dancy tangerine and other citrus apply 7 to 15 lbs per 500 gallons water dilute spray basis. Make first application in April and repeat two or three times at monthly intervals as needed. A spreader-sticker may be added. For Brown rot use 5 lbs per 500 gallons (10 lbs per 500 gallons in Florida) plus spreader-sticker. Apply at first indication of rain or first appearance of Brown rot. Repeat as needed to protect during wet weather. For Red alga use 7.5 lbs per 500 gallons water dilute spray basis. Apply in the early summer and repeat in late summer. For Bacterial blast (Pseudomonas, northern California) - Mix 10 to 20 lbs per 500 gallons water and spray entire tree in October - November before the first rains. Do not apply to Mandarins until after fruit has been picked.

Citrus: Bacterial canker: Research has shown that use of Tri-Basic Copper Sulfate will aid in suppressing or controlling bacterial canker on citrus by spraying expanding foliage and young fruit less than 3 months old, their most susceptible period. On bearing trees this is accomplished by spraying for melanose control 1 to 3 weeks after petal fall and repeating with 2 sprays at monthly intervals. On non-bearing trees, including greenhouse, nurseries, and young transplants, a spray of 7.5 lbs Tri-Basic in 500 gallons of water sprayed to point of run-off may be applied monthly, or as needed, to keep expanding tender foliage protected during its fast growth period of early spring

to late fall. Bearing trees sprayed with Tri-Basic for melanose may benefit from a spray of 7.5 lbs Tri-Basic per 500 gallons water during the early spring flush. If bearing trees are not routinely sprayed for melanose but bacterial canker is a threat, follow the melanose spray program and the two monthly repeat sprays described above.

Filbert: Bacterial blight - Mix 6 lbs per 100 gallons water dilute spray basis plus spreader-sticker and apply post-harvest in late August or early September before first heavy rain. If heavy fall rains occur, repeat spray after three-quarters of leaves have dropped.

Grapes: Anthracnose, Downy mildew and suppression of Black rot - For a dilute spray, mix 2 lbs per 100 gallons or 4 to 5 lbs per acre. Make first application when new growth is 1/2 inch long and repeat at 10 to 14 day intervals as needed, or for concentrate sprays use 4 to 5 lbs per acre. Some vinifera or French hybrids may be sensitive to copper sprays. Check with your State Extension Service.

Mangos: Anthracnose - Apply 12 to 15 lbs per acre. Add a suitable spreader-sticker such as Nu-Film 17. Begin spray treatment when panicles are about 2 inches long. Repeat weekly until fruit set and then continue sprays monthly through September for a total of 5 to 12 applications depending upon area.

Olives: Leaf spot (Peacock) - Use 4 to 6 lbs per 100 gallons and apply in late October. Note: In areas with 10 inches or less of rainfall per year, use only 2 lbs per 100 gallons. In concentrate sprays apply 12 to 15 lbs per acre in not less than 40 gallons of water, or 6 to 8 lbs per acre in areas with less than 10 inches rainfall per year.

Papaya: Anthracnose - Mix 2 lbs per 100 gallons of water on a dilute spray basis. Addition of a sticker such as Nu-Film 17 is desirable. Begin treatment before rains when disease is expected. Repeat at 10 to 14 day intervals or at 5 to 7 day intervals during periods of heavy rainfall.

Peaches and Nectarines: Bacterial diseases (Peaches), Leaf curl, Shot hole (Peach blight, Coryneum blight), suppression of Brown rot, blossom and twig blight - Mix 4 to 5 lbs per 100 gallons plus a sticker applying 400 to 500 gallons per acre on a dilute spray basis. For Bacterial diseases (peaches), Leaf curl, and Shot hole make dormant spray in November 15 to December 15 before fall rains begin. For Brown rot suppression and Shot hole apply before bud swell and again in full pink bud stage to popcorn stage but before leaves emerge. Note: To control Leaf curl, application must be made before the foliage buds swell. For Blight and Leaf curl control, 15 to 20 lbs in 20 gallons of water per acre may be applied by aircraft during dormant period. To aid in control of Peach Bacterial diseases apply 3 lbs per 100 gallons water plus sticker during late leaf fall.

Pears: Fireblight - Use 1/2 lb per 100 gallons water. Apply 400 gallons per acre to give 1 lb of copper per acre by dilute spray basis. Apply at 10% bloom and repeat at 5 to 7 day intervals during bloom. Do not use on D'Anjou, Comice, or Seckel varieties.

Pecans: Mosses, Alga, and Lichen - For mosses, alga and lichens mix 6 lbs per 100 gallons spray plus spreader-sticker on a dilute basis and apply in dormant season before buds swell thoroughly wetting limbs and mosses.

Plums and Prunes: Black knot, Shot hole, suppression of Brown rot - Mix 4 to 4 lbs plus sticker per 100 gallons water for dilute spray basis. For Shot hole control apply as dormant in November or December before heavy fall rains begin. For suppression of Brown rot apply at early green bud and full bloom stages. For Black knot at green tip stage mix 2 to 3 lbs per 100 gallons water dilute spray basis plus 8 to 10 lbs hydrated lime and apply at green tip stage, shuck shed and two cover sprays if needed. For aircraft sprays to control Shot hole apply 16 - 20 lbs per acre in 20 gallons water during dormant season before buds swell. Caution: Overspraying may injure the tender foliage of some Japanese plums.

Walnuts: Bacterial blight - Use 4 to 5 lbs per 100 gallons spray on a dilute basis. Apply in early prebloom (1% pistillate, not catkins blooms showing) and the second when 10 to 20% pistillate (not catkins) blooms are showing. Repeat applications 3 to 4 times as needed.

Strawberries: Downy mildew, Leaf spot - Use 2 to 3 lbs per 100 gallons water. Apply after leaves form and repeat ad 10 to 14 day intervals.

Vegetable and Field Crops

Mixing instructions: Mix recommended amounts of Tri-Basic given for one acre in sufficient water for good coverage. With dilute ground sprayer, generally apply 100 to 150 gallons per acre. With concentrate sprayers, generally apply 20 to 50 gallons per acre. With aerial sprayers, generally apply 3 to 10 gallons per acre. Consult the sprayer equipment manufacturer's recommended spray volumes per acre.

Beans (green and dry): Angular leaf spot, Anthracnose, Bacterial blight, Downy mildew - Use 2 to 4 lbs per acre. Begin spraying when plants are 5 inches tall or when disease first appears. Repeat at 5 to 10 day intervals as needed.

Beets: Downy mildew, Leaf blights, and Leaf spots - Use 2 to 4 lbs per acre. Apply when disease first appears and repeat at 7 to 10 day intervals as needed.

Sugar beets: Cercospora leaf spot, Downy mildew - Use 2 to 4 lbs per acre. Begin when disease first appears and repeat every 7 to 10 days.

Broccoli, Cabbage, Cauliflower: Downy mildew, Leaf spots - Use 1 to 3 lbs per acre and begin when disease is expected and repeat every 7 to 10 days as needed.

Carrots: Downy mildew, Cercospora (early) and Alternaria (late) blights - Use 2 to 4 lbs per acre. Begin when disease first appears and repeat at 7 to 10 day intervals.

Celery: Bacterial blight, early and late blight - Use 3 to 4 lbs per acre. Apply in plant bed or field when plants are 6 inches high or disease first appears. Repeat at 5 to 14 day intervals as needed. May be tank-mixed with maneb, mancozeb, or chlorothanil.

Cucurbits (Cantaloupes, Cucumbers, Melons, Pumpkins, Squash): Angular leaf spot, Anthracnose, Alternaria leaf spot, Bacterial wilt, Downy and Powdery mildews, Gummy stem blight, Leaf spot, Scab - Use 2 lbs per acre. Begin foliar application when plants begin to vine or when disease is first expected, and repeat every 5 to 10 days as needed. Tank mixing with maneb, mancozeb, or chlorothanil (if labeled for crop to be sprayed) may enhance disease control. Since the disease is likely to be more serious in high plant population (40,000 plants or more per acre) spray every 3 to 4 days to protect fruit at all stages of development. Note: A ground application of 4 lbs per acre after planting and before emergence may help decrease infections of Angular leaf spot, Anthracnose, and Alternaria leaf spot and then follow above foliar application program.

Eggplant: Alternaria blight, anthracnose, Phomopsis - Use 3 to 4 lbs per acre. Begin in plant bed or in field before disease appears. Repeat at 7 to 10 day intervals.

Onion: Purple blotch and Downy mildew - Use 3 to 4 lbs per acre. Addition of a spreader-sticker may be desirable. Begin spray when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals as needed.

Peanuts: Early and late leafspot (Cercospora and Cercosporidium) - Use 2 to 3 lbs per acre. Repeat at 10 to 14 day intervals. Note: The addition of 2 lbs wettable or flowable sulfur in a tank-mix may enhance leafspot control. If dusting is preferred, use 7 lbs Tri-Basic with 93 lbs dusting sulfur and apply on 3 to 5 acres depending on size.

Peppers: Anthracnose, Bacterial spot, Early and Late blights, Cercospora leaf spot (Frogeye spot), Downy mildew - Use 3 to 4 lbs per acre. Start sprays in seedbed or field before disease first appears and usually right after transplanting. Repeat every 7 to 10 days in field and especially during fruiting stages.

Potatoes: Late blight - Use 3 to 6 lbs per acre. Begin before disease is expected to appear and repeat every 7 to 10 days as needed and at vine kill spray.

Spinach: Anthracnose, Cercospora leaf spot, Downy mildew, White rust - Use 2 to 4 lbs per acre. Begin when disease first appears, Repeat at 7 to 10 day intervals.

Tomatoes: Anthracnose, Bacterial spot and speck, Bacterial canker, Early and Late blight, Leaf mold, Nailhead rust, Septoria, and Stemphylium leaf spot - Use 2 to 4 lbs per acre. Begin in seedbed or field before disease appears. Repeat at 7 to 10 day intervals. Note: A tank-mix of Tri-Basic with Dithane M-45, Maneb, or Manzate 200 used at labeled rates improves Bacterial spot and speck control as well as a broad range of tomato diseases. Observe all cautions and limitations on labels of all products used in mixtures. For Bacterial speck control use 2 lbs Tri-Basic per acre tank-mixed with Dithane M-45 or Manzate 200.

Ornamentals

Oak trees: Ball moss and Spanish moss - Mix 6 lbs Tri-Basic in 100 gallons of water. Apply in spring after heavy rain. Thoroughly wet tree and moss, applying about 1.5 gallons per foot of tree height.

Notice to Buyer: Follow all directions carefully. Timing, methods of application, weather, crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with the directions given on this label.