



**TRIANGLE BRAND  
COPPER SULFATE INSTANT POWDER**

Not for medicinal use

**ACTIVE INGREDIENT:**

Copper sulfate pentahydrate* .....	99.0%
<b>INERT INGREDIENTS:</b> .....	1.0%
<b>TOTAL</b> .....	100.0%

\*Metallic copper equivalent 25.2%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER/PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

**Information for Right-to-Know States:**

Copper sulfate pentahydrate: sulfuric acid, copper (2+) salt (1:1)/  
CAS Reg. No. 7758-98-7; Water/CAS Reg. No. 7732-18-5

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED:** Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

**IF IN EYES:** Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

**IF ON SKIN:** Immediately wash skin with soap and plenty of water and get medical attention.

EPA Reg. No. 1278-5

EPA Est. No. 1278-TX-1

Manufactured by  
Phelps Dodge Refining Corporation  
El Paso, Texas 79998

Net Weight  
50 Lbs./22.68 Kg.

**PRECAUTIONARY STATEMENTS  
DANGER  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes severe eye and skin irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Causes substantial but temporary eye injury. May cause skin sensitization reactions in certain individuals.

**PERSONAL PROTECTIVE EQUIPMENT**

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with product's concentrate. Do not reuse them. 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.

**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**

This pesticide is toxic to fish and aquatic organisms. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent sites. Direct application of copper sulfate to water may cause a significant reduction in populations of aquatic invertebrates, plants, and fish. Do not treat more than one-half of lake or pond at one time to avoid depletion of oxygen levels due to decaying vegetation. Allow one to two weeks between treatments for oxygen levels to recover.

Trout and other species of fish may be killed at application rates recommended on this label, especially in soft or acid waters. However, fish toxicity generally decreases when the hardness of water increases. Do not contaminate water when disposing of equipment washwaters. Consult your State Fish and Game Agency before applying this product to public waters. Permits may be required before treating such waters.

**STORAGE AND DISPOSAL  
DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL  
STORAGE**

Store unused product in original container only in a cool, dry area out of reach of children and animals. If container or bag is damaged, place the container or bag in a plastic bag. Shovel any spills into plastic bags and seal with tape.

**DISPOSAL**

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of pesticide, spray mixture, 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 the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Open dumping is prohibited.

**CONTAINER DISPOSAL:** Do not reuse empty container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Place the pesticide into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If burned, stay out of smoke.

**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.

**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, forest, 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.

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, waterproof gloves, shoes plus socks, and protective eyewear.

### SEWER TREATMENT FOR ROOT AND FUNGUS CONTROL\*

Triangle Brand Copper Sulfate Instant Powder is effective in keeping sewer lines free of roots.

**FOR PARTIAL STOPPAGE:** Add 1/2 pound of Phelps Dodge Refining Triangle Brand Copper Sulfate Instant Powder to sewer or drain and flush toward blockage with 5 gallons of water. Repeat at 6 month intervals to prevent growth of new roots.

**FOR COMPLETE STOPPAGE:** Physically remove the root blockage and repeat as above.

\*State law prohibits the use of this product in sewage systems in the State of Connecticut.

### TO CONTROL PLANT DISEASES

A. Apply Triangle Brand Copper Sulfate Instant Powder as directed below:

**POTATOES (except California):** To enhance vine-kill and suppress late blight, apply 10 lbs. per acre in 10 to 100 gallons of water (ground equipment) or in 5 to 10 gallons (aerial equipment) with Diquat at vine-kill to enhance vine desiccation and suppress late blight. Additional applications can be made with Diquat if needed within 7 days of harvest. Triangle Brand Copper Sulfate Instant Powder may be applied alone until harvest to suppress late blight. **NOTE:** This product can be mixed with Diquat for use on potatoes in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded.

**APPLES (except California):** For fireblight, mix 5 lbs. of Triangle Brand Copper Sulfate Instant Powder in 100 gallons of water and spray uniformly to the point of runoff. Apply in dormant only at silver tip stage. After silver tip, severe burn will occur on any exposed green tissue. Do not mix lime to make a Bordeaux spray for this treatment.

**GRAPES, DORMANT (except California):** For powdery mildew, apply in spring before bud-swell and before any green tissue is present. Use 4 to 8 lbs. of Triangle Brand Copper Sulfate Instant Powder per 100 gallons of water. Apply in a high volume spray of 300 gallons water per acre. Direct spray to thoroughly wet the dormant vine, especially the bark of the trunk, head, or cordons.

B. Apply Triangle Brand Copper Sulfate Instant Powder in a Bordeaux spray on the crops below:

Triangle Brand Copper Sulfate Instant Powder may be used as an ingredient in Bordeaux mixture sprays as a fungicide to control some plant diseases. If a Bordeaux mix is stated as 10-10-100, the first figure indicates the number of pounds of Triangle Brand Copper Sulfate Instant Powder; the second is the number of pounds of hydrated spray lime, and the third figure indicates the number of gallons of water to be used per acre.

To prepare a Bordeaux mixture, fill the tank 1/4 full with water while the agitator is running. Wash Triangle Brand Copper Sulfate Instant Powder into the tank through a copper, bronze, stainless steel or plastic screen. Fill the tank 3/4 full with more water and wash the hydrated spray lime through the screen and then fill the tank. Agitate for several minutes to insure thorough mixing.

**ALMONDS, APRICOTS, PEACHES, NECTARINES:** For shot hole fungus, prepare a 10-10-100 Bordeaux mixture and apply as a dormant spray in late fall or early spring.

**ALMONDS, APRICOTS, CHERRIES, PEACHES, NECTARINES, PLUMS, PRUNES:** For brown rot blossom blight, prepare a 10-10-100 Bordeaux mixture and apply when buds begin to swell.

**BULBS (EASTER LILY, TULIP, GLADIOLUS):** For botrytis blight, prepare a 10-10-100 Bordeaux and apply as a foliar spray to one acre. Apply for thorough coverage beginning at the first sign of disease and repeat as needed to control disease at 3 to 10 day intervals. Use the shorter intervals during periods of frequent rains or when severe disease conditions persist. Avoid spray just before flower cutting season if residues are a problem.

**CHERRIES (SOUR):** For leaf spot, prepare a 10-10-100 Bordeaux mixture and apply as a full coverage spray after petal fall or as recommended by State Extension Service.

**CHERRIES (SWEET):** For dead bud and bacterial canker (*Pseudomonas syringae*), prepare a 12-12-100 Bordeaux. Apply at leaf fall and again in late winter before buds begin to swell. In wet, cool Northwest U.S. winters, a third spray may be needed between above sprays.

**CITRUS:** For bacterial blast, prepare a 10-10-100 Bordeaux spray and apply a spray in late October to early November or before fall rains begin. Make a complete coverage spray using 10 to 25 gallons per mature tree.

**GRAPES:** For downy mildew, prepare and apply a 2-6-100 Bordeaux spray beginning when downy mildew is detected. Repeat as needed to achieve and maintain control. This mixture and its use will exhibit some phytotoxicity on most varieties.

**LEMONS, ORANGES, GRAPEFRUIT:** For phytophthora brown rot, prepare a 3-4-5-100 Bordeaux mixture where there is no history of copper injury, or a 3-2-6-100 (zinc sulfate-copper sulfate-hydrated lime-gallons of water) Bordeaux mixture. Spray 6 gallons on skirt of tree 3 to 4 feet high, and 2 to 4 gallons on trunk and ground under the tree. If *Phytophthora hibernalis* is present, use 10 to 25 gallons to completely cover each tree. Apply in November or December just before or after first rain. In severe brown rot season, apply second application in January or February.

**LEMONS, ORANGES, GRAPEFRUIT:** For septoria fruit and leaf spot (central California), brown rot, zinc and copper deficiencies, prepare a 3-2-6-100 Bordeaux mixture (zinc sulfate-copper sulfate-hydrated lime-gallons of water) and use 10 to 15 gallons to cover completely each tree. Apply in October, November or December just before or after first rain.

**WALNUTS:** For walnut blight, apply 15 pounds copper sulfate with 10 pounds of hydrated lime in 100 gallons of water plus 1/2 gallon summer oil emulsion. Apply in early pre-bloom and at 10% to 20% pistillate (not when catkin blooms are showing) just before or after rain. Use only if Bordeaux mixture has been proven to be non-phytotoxic in your area.

**OLIVES:** For peacock spot and olive knot, prepare a 10-10-100 Bordeaux mixture and apply in autumn before heavy winter rains to prevent peacock spot. In areas of less than 10 inches rainfall, use a 5-10-100 Bordeaux mixture. To help protect against olive knot, apply a 10-10-100 Bordeaux mixture before heavy rains and again in the spring. Injury may occur in areas of less than 10 inches of rainfall.

**CHEMIGATION:** Refer to supplemental labeling for use directions for chemigation. Do not apply this product through any irrigation system unless supplemental labeling on chemigation is followed. Supplemental labeling is entitled: "Supplemental Labeling for Copper Sulfate Pentahydrate, EPA Reg. No. 1278-5, EPA Est. No. 1278-TX-1, Chemigation."

#### SPECIAL USE DIRECTIONS FOR CHEMIGATION APPLICATION

Apply this product only through sprinkler systems including center pivot, lateral move, end tow, side (wheel) roll, solid set, or hand move. Do not apply this product through any other type of irrigation system. Do not use this product in sprinkler systems connected directly to public water systems. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a motoring pump, such as positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of material that is compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

To mix this product for application, add it to the supply tank containing sufficient water to maintain a pumpable fluid for your equipment with continuous agitation. Continued agitation is required in the pesticide supply tank when this product is present until it is completely empty.

If other known compatible pesticides or products are tank-mixed, add this product and other wettable powders first to the water, followed by flowables, liquids, and last emulsifiable products. In lateral move, end tow, side (wheel) roll, solid set, or hand move, inject products in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all sprinkler heads. In continuous moving systems, inject this product-water mixture continuously applying the labeled rate per acre for that crop. In continuous moving systems, best disease control results when water applications are low, but do not exceed one inch per acre.

#### NOTICE TO BUYER

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

To report adverse health or environmental effects, call 1-800-839-1935 Phelps Dodge (24) hours).

DOT Hazard Class  
RQ Environmentally Hazardous Substances,  
Solid, n.o.s., (Cupric Sulfate), UN 3077, III