



COMPANY
NUMBER

1278

PRODUCT
SERIAL NO.

5

LABEL
APPROVAL
DATE

6-12-91

PM23

1278-5

1 of 9



El Paso Works • P.O. Box 20001, El Paso, Texas 79968 • (915) 778-9681

INSTANT

COPPER

SULFATE PENTAHYDRATE
EPA REGISTRATION NO. 1278-5
EPA ESTABLISHMENT NO. 1278-TX-1

ACCEPTED
JUN 12 1991
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under:
EPA Reg. No. 1278-5



3 of 9

(Circle Containing the following to dash line.)

**Phelps Dodge Refining Corporation
El Paso, Texas**

Triangle Brand Copper Sulfate

(Copper Sulfate) INSTANT

NOT FOR MEDICINAL USE

Active ingredient: Copper sulfate pentahydrate * 99.0%
Inert ingredients: 1.0%
*Metallic Copper Equivalent 25.2%

**KEEP OUT OF REACH OF CHILDREN
HARMFUL IF TAKEN INTERNALLY**

DANGER/PELIGRO

PRECAUCION AL USUARIO: Su usted no lee inglés, no use este producto hasta que la etiqueta haya sido explicada ampliamente.

**PRECAUTIONARY AND PRACTICAL TREATMENT STATEMENTS
APPEAR ON THE BACK OF THIS PACKAGE.**

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.

EPA REGISTRATION NO. 1278-5

EPA ESTABLISHMENT NO. 1278-TX-1

Net Weight 50 Lbs. - 22.68 Kg.

**MANUFACTURED BY
PHELPS DODGE REFINING CORPORATION
EL PASO, TEXAS 79998**

Made in the United States of America.

DANGER/PELIGRO

PRECAUCION AL USUARIO:

Si usted no lee inglés, no use este producto hasta que la etiqueta haya sido explicada ampliamente.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Causes severe eye and skin irritation. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing mist or dust and contact with skin, eyes, or clothing. Causes substantial but temporary eye injury. May cause skin sensitization reactions in certain individuals. Protective clothing, including goggles, should be worn. Wash hands, arms, and face thoroughly with soap and warm water after handling. Remove contaminated clothing and wash before reuse.

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 SPLASHED IN EYES:

Immediately flush eyes with plenty of water for at least 15 minutes, and get medical attention.

IF SPILLED ON SKINS:

Remove contaminated clothes and shoes, immediately wash skin with soap and plenty of water, and get medical attention.

IF INHALED:

Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth; and get medical attention.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water except as directed under the specific instructions section. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic 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 by cleaning of equipment or disposal of wastes. 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.

PESTICIDE WASTE DISPOSAL:

Pesticide wastes are acutely hazardous. Improper disposal of pesticide, spray mixture, or rinsate is 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.

RE-ENTRY STATEMENT

Do not enter treated area without protective clothing until sprays have dried or dusts have settled. 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. 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 to be treated with this product. 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 TRIANGLE BRAND COPPER SULFATE PENTAHYDRATE ON (date of application). DO NOT ENTER WITHOUT APPROPRIATE PROTECTIVE CLOTHING UNTIL SPRAYS HAVE DRIED OR DUSTS HAVE SETTLED. IN CASE OF ACCIDENTAL EXPOSURE, SEE THE STATEMENT FOR PRACTICAL TREATMENT ON THIS LABEL.

GENERAL INSTRUCTIONS

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

FEED ADDITIVE

PHELPS DODGE REFINING CORPORATION TRIANGLE BRAND COPPER SULFATE PENTAHYDRATE is a valuable dietary supplement in mixed feeds for cattle, hogs, chickens and other agricultural animals. Consult your State Agricultural Experiment Station or State Extension Service for guidance in preparing dosages and formulas.

FERTILIZER ADDITIVE

PHELPS DODGE REFINING CORPORATION TRIANGLE BRAND COPPER SULFATE PENTAHYDRATE is a valuable copper supplement in mixed fertilizers and soil conditioners. Consult your State Agricultural Experiment Station or State Extension Service for guidance in preparing dosages and formulas.

DIRECTIONS FOR USE AS A PESTICIDE

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

SEWER TREATMENT FOR ROOT AND FUNGUS CONTROL

PHELPS DODGE REFINING CORPORATION TRIANGLE BRAND COPPER SULFATE PENTAHYDRATE is effective in keeping sewer lines free of roots.

A. FOR PARTIAL STOPPAGE:

Add 1/2 pound of **PHELPS DODGE REFINING TRIANGLE BRAND COPPER SULFATE PENTAHYDRATE** to sewer or drain and flush toward blockage with 5 gallons of water. Repeat at 6 month intervals to prevent growth of new roots.

B. FOR COMPLETE STOPPAGE:

Physically remove the root blockage and repeat as above.

Mixing Bordeaux Mixtures

PHELPS DODGE REFINING CORPORATION TRIANGLE BRAND COPPER SULFATE PENTAHYDRATE 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 **COPPER SULFATE PENTAHYDRATE**, 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 the **PHELPS DODGE REFINING CORPORATION TRIANGLE BRAND COPPER SULFATE PENTAHYDRATE 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.

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 LABELLING COPPER SULFATE PENTAHYDRATE
EPA REGISTRATION NO. 1278-5
EPA ESTABLISHMENT NO. 1278-TX-1
CHEMIGATION**

USING BORDEAUX MIXTURES WITH VARIOUS CROPS

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.

SOUR CHERRIES

(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.

LEMONS, ORANGES, GRAPEFRUIT

(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

(Septoria Fruit & 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

(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

(Peacock Spot, 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.

LILIES

(Botrytis Blight)

Prepare a 10-10-100 Bordeaux Mixture and apply at beginning of emergence. Repeat at 7 to 10 day intervals. Apply more often during frequent rainfalls or when severe disease conditions occur.

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.

D.O.T. Hazard Class
RQ-ORM-E NA-9188
RQ 10/4.54

ORM-E

COPPER SULFATE PENTAHYDRATE
CAS No. 7758-99-8

CHEMIGATION

**SUPPLEMENTAL LABELING COPPER
SULFATE PENTAHYDRATE
EPA REGISTRATION NO. 1278-8
EPA ESTABLISHMENT NO. 1278-TX-1**

**SUPPLEMENTAL LABELING COPPER
SULFATE PENTAHYDRATE
EPA REGISTRATION NO. 1278-5
EPA ESTABLISHMENT NO. 1278-TX-1**

Special Use Direction for Chemigation Applications.

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 posttolde 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 green house 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 motorizing pump, such as positive displacement injections pump (e.g., diaphragm pump) defectively designed and constructed of materials that are 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 pes-

ticide 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 low, 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 system, 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.

**phelps
dodge**
Refining & Corporation

EL PASO, TEXAS 79960