P M 2 3

60058-1

1 of 9

CLF data

9-26-90

FRONT PANEL
[Cominco's logo will appear on top line]

COMINCO

COPPER SULPHATE
SUPERFINE CRYSTALS

(+35 MESH TO 100 MESH)

ACTIVE INGREDIENT:	
Copper Sulphate Pentahydrate* . .	99.0%
INERT INGREDIENTS:	1.0%
TOTAL:	100.0%
* Metallic Copper Equivalent	25.2%

NOTIFICATION LABEL NOT REVIEWED PER PR NOTICE
DATE JUL 3 0 1990

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

PRECAUCION AL USUARIO: Si Usted no lee ingles, no use este producto hasta que le etiqueta hava sido explicado ampliamente.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES, flush with plenty of water. Call a physician.

IF ON SKIN, remove contaminated clothes and shoes and immediately wash skin with soap and plenty of water. See a physician.

IF SWALLOWED, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

Note to physician. probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER -- Causes severe eye and skin irritation. Harmful if absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with the skin, eyes or clothing. Avoid breathing dust. Protective clothing, including goggles, should be worn. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

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 sulphate 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 in order to avoid depletion of oxygen levels due to decaying vegetation. Allow 1 to 2 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. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of EPA.

RQ 10/4.54
CUPRIC SULPHATE
NA9109

EPA Reg. No. 60058-
EPA Est. 60058-CN-0

ACCEPTED with COMMENTS In EPA Letter Dated
APR 2 6 1990

NET WT. 50 LBS.
(22.7 KILOS)

COMINCO FERTILIZERS
A DIVISION OF COMINCO LTD.
426, 10333 SOUTHPORT ROAD S.W.
CALGARY, ALBERTA, CANADA T2W 3X6

BEST AVAILABLE COPY

(SEE BACK PANEL FOR DIRECTION FOR USE)

60058-1

COPPER SULPHATE

DIRECTIONS FOR USE

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

RE-ENTRY STATEMENT

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. Do not enter treated areas without protective clothing until sprays have dried. Certain states require more restrictive reentry 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 areas about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written and oral warnings must include the following information: **DANGER:** Area treated with Copper Sulphate on date of application. Do not enter without appropriate protective clothing until sprays have dried. Required protective clothing: long sleeved shirt and long legged pants. In case of accidental exposure, wash all exposed skin areas with plenty of soap and water. Because certain states may require restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

STORAGE AND DISPOSAL

Store in a cool, dry place. Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. If container is damaged, place container in a plastic bag. Shovel any spills into plastic bag and seal with tape. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instuctions, contact your State Pesticide or Environmental Control Agency, or the Hazardous waste representative at the nearest EPA Regional Office for guidance.

Container disposal: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities.

GENERAL INSTRUCTIONS

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

FEED ADDITIVE

Copper Sulphate is a valuable dietary supplement in mixed feeds for cattle, hogs, chickens and other agricultural animals. Please consult your State Agricultural Experiment Station or State Extension Service for guidance in preparing dosages and formulas.

ALGAE CONTROL

When using Copper Sulphate Pentahydrate to control algae, there are many factors to consider such as water hardness, temperature of the water, type and quantity of vegetation to be controlled and the amount of water flow. Algae can be controlled more easily and effectively if treatment with Copper Sulphate is made soon after plant growth has started. Under such circumstances, small amounts of Copper Sulphate can effectively control algae in water. However, if treatment is delayed until large amounts of algae are present, larger quantities of Copper Sulphate will be required. Control of algae in water systems is not always permanent. Usually algae is more difficult to control with Copper Sulphate when water temperatures are low. The dose rates for Copper Sulphate are based on a water temperature of 60°F or higher. Larger quantities of Copper Sulphate will be required in hard water. Normally, larger quantities of Copper Sulphate will be required to kill algae in water that is flowing than in a body of stagnant water. If possible, curtail the flow of water before treatment and hold dormant for about three days after treatment or until plants have begun to die. When preparing a Copper Sulphate solution in water, it is best that the mixing vessel be made of plastic or glass. Metal containers lined with plastic or painted or enameled are permissible. Galvanized containers are to be avoided. It is usually best to treat algae on calm sunny days when [illegible] mats of filamentary algae are most likely to be floating on the surface where it can be sprayed directly. When in doubt about the concentration to be used, it is recommended to start with a lower concentration and gradually increase the concentration until the algae is killed.

3-19

CALCULATIONS FOR AMOUNT OF WATER AND COPPER SULPHATE PENTAHYDRATE TO BE USED

A. Calculate water volume as follows:

1. Obtain surface area by measuring regular shaped ponds or mapping irregular ponds or by use of previously recorded data or maps.

2. Calculate average depth by sounding in a regular pattern and taking the mean of these readings or by use of previously recorded data.

3. Multiply surface area in square feet by average depth in feet to obtain cubic feet of water volume, or

4. Multiply surface area in acres by average depth in feet to obtain total acre feet of water volume.

B. Calculate weight of water to be treated as follows:

1. Multiply volume in cubic feet by 62.4# to obtain total pounds of water, or

2. Multiply volume in acre feet by 2,720,000 to obtain total pounds of water.

C. Calculate amount of Copper Sulphate Pentahydrate to add:

To calculate the weight of Copper Sulphate Pentahydrate needed to achieve the desired concentration, multiply the weight of water in pounds by the recommended concentration. Since the recommended concentrations are given in parts per million (ppm), first convert the value to a decimal equivalent. A value of 1 ppm is equivalent to 0.000001 as a decimal value. Thus the amount of Copper Sulphate Pentahydrate would be (0.000001 x 2,720,000) = 2.72 lbs. Copper Sulphate Pentahydrate.

Treatment of algae can result in oxygen loss from decomposition of dead algae. This loss can cause fish suffocation. Therefore, to minimize this hazard, treat 1/3 to 1 2 of the water area in a single operation and wait 7 to 14 days between treatments. Begin treaments along the shore and proceed outwards in bands to allow fish to move into untreated water.

NOTE: If treated water is to be used as a source of potable water, the metallic copper residual must not exceed 1 ppm .4 ppm Copper Sulphate Pentahydrate .

BACK LEFT PANEL (continued)

SPECIFIC INSTRUCTIONS

TO CONTROL ALGAE IN IMPOUNDED WATER, LAKES, PONDS, AND RESERVOIRS:

There are several methods by which to apply Copper Sulphate to impounded water. Probably the simplest and most satisfactory method is to dissolve the Copper Sulphate crystals in water and to spray this solution over the body of water. A small pump mounted in the boat can easily be used for this purpose. Crystals may be broadcast directly on the water surface from a properly equipped boat. A specially equipped air blower can be used to discharge these size crystals at a specific rate over the surface of the water. When using this method, the wind direction is an important factor. Do not use this method unless completely familiar with this type of application. Copper Sulphate Crystals are also designed to be used as a dry application from airplanes, using a maximum of 53 pounds per acre. Where the situation permits, Copper Sulphate may be applied under the water by dragging burlap bags containing Copper Sulphate. The crystals are placed in burlap bags and dragged through the water by means of a boat. Begin treatment along the shoreline and proceed outward until one-third to one-half of the total area has been treated. Care should be taken that the course of the boat is such as to cause even distribution of the chemical in large lakes. It is customary for the boat to travel in parallel lines about 20 to 100 feet apart. Continue dragging the burlap bags over the treated area until the minimum dosage is achieved and all crystals have been dissolved. Copper Sulphate Crystals should be used with this method since they dissolve slowly and evenly.

TO CONTROL ALGAE IN RICE FIELDS (Domestic and Wild):

Application should be made when algae has formed on the soil surface in the flooded field. Applications are most effective when made prior to the algae's leaving the soil surface and rising to the water surface. Apply 10-15 pounds Copper Sulphate Pentahydrate to the water surface or dissolve in water and make a surface spray. Apply higher rate in deeper water (6 inches or greater)

BACK LEFT PANEL

CONTROL OF TADPOLE SHRIMP IN FLOODED RICE FIELDS: (Domestic and Wild):

Copper Sulphate Pentahydrate is recommended for the control of Tadpole Shrimp in rice fields. Copper Sulphate should be applied at a rate of 10 to 15 pounds per acre by mixing with 60 gals. of water and applying as a uniform surface spray using boat, plane or other professional means and pressurized spray device. This product is also designed to be used as a dry application from airplanes, using 10 to 15 pounds per acre. Use at the first indication of infestation after the field has been flooded to a depth of 6 to 8 inches. Copper Sulphate Pentahydrate is especially made for maximum solubility in this volume of water.

COPPER SULPHATE REQUIRED FOR TREATMENT OF DIFFERENT GENERA OR ALGAE

The genera of algae listed below are commonly found in waters of the United States. Use the lower recommended rate in soft waters less than 50 ppm methyl orange alkalinity and the higher concentration in hard water above 50 ppm alkalinity. Always consult State Fish and Game Agency before applying this product to municipal waters.

BACK RIGHT PANEL

SEWER TREATMENT - ROOT DESTROYER

A. For Partial Stoppage - Add 1/2 pound of Copper Sulphate 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.

WOOD TREATMENT

green, peeled posts -fungus decay rot

Prepare a solution of 18.0 pounds of sodium chromate in each 26 gallons of water to be used and a separate second solution of 18.0 pounds of Copper Sulphate in each 24 gallons of water to be used, soak the peeled, green posts, butt end down first in the Copper Sulphate solution for 3 days, then butt end down in sodium chromate solution for 2 days, and finally, turn the posts upside down in the sodium chromate solution for 1 additional day. Remove and rinse posts with clear water.

TOP OF BACK RIGHT PANEL

ORGANISM	1/4 to 1/2 ppm*	1/2 to 1 ppm*	1 to 1-1/2 ppm*	1-1/2 to 2 ppm*
Cyanophyceae (Blue Green)	Anabaena Anacystis Aphanizomenon Gloeotrichia Gomphosphaeria Polycystis Rivularia	Cylindrospermum Oscillatoris Plectonema	Nostoc Phormidium	Calothrix Symploca
Chlorophyceae (Green)	Closterium Hydrodictyon Spirogyra Ulothrix	Botryococcus Cladophora Coelastrum Draparnaldia Enteromorpha Gloeocystis Microspora Tribonema Zygnema	Chlorella Crucigenia Desmidium Golenkinia Occystis Palmella Pithophora Staurastrum Tetraedron	Ankistrodesmus Chara Nitella Scenedesmus
Diatomaceae (Diatoms)	Asterionella Frigilana Melorisa Navicula	Gomphonema Nitzschia Stephanodiacus Synedra Tabellaria	Achnanthes Cymbella Neidium	
Protozoa (Flagellates)	Dinobryon Synura Uroglena Volvox	Ceratium Cryptomona Euglena Glenodinium Mallomonas	Chlamydomonas Nawmatococcus Paridinium	Eudorina Pandorina

* 1/4 to 1/2 ppm = 0.67 to 1.3 lbs/acre ft

* 1/2 to 1 ppm = 1.3 to 2.6 lbs/acre ft

* 1 to 1-1/2 ppm = 2.6 to 3.9 lbs/acre ft

* 1-1/2 to 2 ppm = 3.9 to 5.32 lbs/acre ft

BORDEAUX MIXTURE

HOW TO PREPARE A BORDEAUX MIXTURE

Ingredients and Dosage Rates: A Bordeaux Mixture is composed of three ingredients: Copper Sulphate Pentahydrate, hydrated spray lime, and water. In the instructions stated below for various crops, dosage rates are given in terms of the ratio of three numbers, referring to the relative amounts of these three ingredients that should be used. E.g., if the instructions refer to a "10-10-100 Bordeaux Mixture," the proper dosage is a mixture containing a ratio of 10 pounds of Copper Sulphate Pentahydrate, plus 10 pounds of hydrated spray lime, for every 100 gallons of water. (If more or less Bordeaux Mixture is desired, the amounts of all ingredients should remain in this same proportion.) Use as a full-coverage spray to runoff.

Preparation of the Mixture: To prepare a Bordeaux Mixture, follow these steps: (1) determine the volume of the mixing tank, and calculate how much of each ingredient will be needed for the dosage rate desired; (2) fill the tank one quarter full with water; (3) with the agitator running, mix the Copper Sulphate Pentahydrate into the tank through a copper, bronze, plastic, or stainless steel screen; (4) add water until the tank is three-quarters full; (5) mix the hydrated spray lime through the screen; and (6) add the balance of the water. Do not allow mixture to stand before use. Spray mixtures and liquid formulations are corrosive to certain metals.

CROPS

Almonds, Apricots, Peaches, Nectarines: 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: 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 the State Extension Service.

Lemons, Oranges, Grapefruit: Brown Rot (Phytophthora) - Prepare and apply a 3-4 1/2-100 Bordeaux Mixture where there is no history of copper injury. Prepare and apply a 2-6-100 Bordeaux Mixture with 3 pounds of Zinc Sulphate (as a micronutrient additive) where injury has occurred. Apply 6 gallons of spray 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 a severe Brown Rot season, apply second application in January or February.

Fruit and Leaf Spot (Septoria) (in Central California), Brown Rot, Zinc and Copper Deficiencies - Prepare and apply a 2-6-100 Bordeaux Mixture with 3 pounds of Zinc Sulphate (as a micronutrient additive). Apply 10 to 25 gallons to completely cover each tree. Apply in October, November or December just before or after first rain.

Walnuts: Walnut Blight - Apply 15 pounds Copper Sulphate 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 nonphytotoxic 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 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.

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 LABEL: COPPER SULPHATE"
"EPA Reg. No. 60056-1/
EPA Est. No. 60058-CN-001"
"CHEMIGATION"

CONDITIONS OF SALE
LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

The directions for use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use of application, all of which are beyond the control of Cominco Fertilizers or the Seller. All such risks shall be assumed by the purchaser and user.

Cominco Fertilizers warrants tha this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the inherent risks referred to above. Cominco Fertilizers makes no other warranty or representation of any kind express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE and no such warranties shall be implied by the law.

The exclusive remedy against Cominco Fertilizers for any cause of action relating to the handling or use of this product is a claim for damage and in no event shall damages or any other recovery of any kind against Cominco Fertilizers, A Division of Cominco Ltd., exceed the price of the product which causes the alleged loss, damage, injury or other claim. Cominco Fertilizers shall not be liable and any and all claims against Cominco Fertilizes are waived for special, indirect, incidental, or consequential damages or expenses of any nature including, but not limited to loss of profits or income, and crop or property loss or damage, whether or not based on Cominco Fertilizers negligence, breach of warranty, strict liability in tort or any other cause of action.

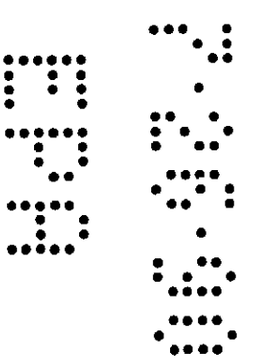
Cominco Fertilizers and the Seller offer this product and the buyer and user accept it subject to the foregoing conditions of sale and limitations of warranty, liability and remedies which may only be varied by agreement in writing signed by a duly authorized representative of Cominco Fertilizers.

EPA Reg. No. 60058-1

EPA Est. No. 60058-CN-001

THIS PRODUCT IS MANUFACTURED BY:
COMINCO LTD.
TRAIL, BRITISH COLUMBIA, CANADA

(BOTTOM CENTER OF BACK PANEL)



1/29

SUPPLEMENTAL LABEL: COPPER SULPHATE
EPA Reg. No. 60058-1/EPA Est. No. 60058-CN-001

CHEMIGATION

This bulletin contains supplemental Directions for Use which do not appear on the package of this product. This labeling must be in the possession of the user at the time of pesticide application. Refer to the primary label for Precautionary Statements, and Storage and Disposal Directions.

DIRECTIONS FOR USE

It is a violation of Federal laws to use this product in a manner inconsistent with its labeling. If this product is intended to be applied by chemigation, follow these directions:

Apply this product only through a sprinkler including center pivot, lateral move, end tow, side wheel roll, traveler, big gun, solid set, or hand move; flood basin; furrow; border; or drip trickle irrigation system. Do not apply this product through any other type of irrigation system.

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, contact State Extension Services 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 about 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.

POSTING OF AREAS TO BE CHEMIGATED

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as a golf course or retail greenhouse.

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of each sign shall face away from the treated area and toward the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be of a color which contrasts sharply with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER. A small-scale example of an acceptable sign follows

KEEP OUT

STOP

PESTICIDES IN
IRRIGATION WATER

Posting required for chemigation does not replace other posting or reentry interval requirements for farm worker safety.

PUBLIC WATER SYSTEMS

A public water system is a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A chemigation system connected to a public water system must contain a functional, reduced-pressure zone and a backflow preventer (RPZ), or the functional equivalent, in the water supply line upstream from the point

of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break air gap between the outlet end of the fill pipe and the top of overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. 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 contain a functional, normally close, selenoid 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 mus' contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or, in cases, where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as positive displacement injection pump (e.g., diaphragm pump , effectively 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. If you prefer to make a Copper Sulphate Solution, mix 2.75 pounds of crystals to one gallon of water to make a 25 percent Copper Sulphate Solution. Slowly add crystals to water while agitating until all crystals are dissolved. Use one gallon of solution for every 2.5 pounds of Copper Sulphate crystals equivalent) desired. Follow directions on the package regarding application.

SPRINKLER CHEMIGATION

If the product is to be applied via a sprinkler system, 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, atuomatic, 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, selenoid-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 metering pump, such as a positive displacement injection pump e.g., diaphragm pump , effectively designed and constructed of materials compatible with pesticides and capable of being fitted with a system interlock.

Do not apply product when wind speed favors drift beyond the area intended for treatment. If you prefer to make a Copper Sulphate Solution, mix 2.75 pounds of crystals to 1 gallon of water to make a 25 percent Copper Sulphate Solution. Slowly add crystals to water while agitating until all crystals are dissolved. Use one gallon of solution for every 2.5 pounds of Copper Sulphate (crystals equivalent) desired. Follow directions on the package regarding application.

When mixing a Bordeaux mixture keep the agitator running in the spray tank until spraying is completed. Apply the Copper Sulphate Bordeaux Mixture continuously for the duration of the water application. If this is impractical, apply this product at the end of the application cycle. Follow directions on the primary label covering the crop to be treated.

FLOOD (BASIN), FURROW AND BORDER CHEMIGATION

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops. A system utilizing a pressurized water and pesticide injection system must meet the following requirements: 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, selenoid-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 water pressure decreases to the point where pesticide distribution is adversely affected. The system must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

If you prefer to make a Copper Sulphate Solution, mix 2.75 pounds of crystals per gallon of water to make a 25 percent Copper Sulphate Solution. Slowly add the crystals to the water while agitating until all crystals have dissolved. Use one gallon for every 2.5 pounds of Copper Sulphate crystals equivalent desired. Apply Copper Sulphate continuously for the duration of the water application. If this is impractical, apply this product at the end of the application cycle. Follow directions on the primary label covering the specific crop to be treated.

COMINCO LABEL
MANUFACTURED BY
COMINCO LTD.
TRAIL, BRITISH COLUMBIA

PM 53 60058-1 1 of 11

APR 26 1990

Mr. Lawrence B. Novey
U.S. Agent for Cominco Ltd.
901 15th Street, N.W., Suite 1100
Washington, D.C. 20005

Dear Mr. Novey:

SUBJECT: Determination of Compliance with FIFRA Section 3(c)(2)(B) for the Following Pesticide Product:

Copper Sulphate Superfine Crystals (+35 mesh to 100 mesh) and Copper Sulphate Course Crystals (-8 mesh to +35 mesh)
EPA Registration No. 60058-1
Application to Amend Registration Dated February 27, 1990 and Your Letter Dated March 30, 1990

The application to amend the subject pesticide product registration by adding end-use patterns is acceptable under the Federal Insecticide, Fungicide and Rodenticide Act as amended, provided that the following revisions are made:

1. Revise the two paragraphs in instructions that tell the applicator how to prepare a Bordeaux Mixture to read as follows:

   - o Ingredients and Dosage Rates: A Bordeaux Mixture is composed of three ingredients: Copper Sulfate Pentahydrate, hydrated lime, and water. In the instructions stated below for various crops, dosage rates are given in terms of the ratio of these three ingredients. For example, a 10-10-100 Bordeaux Mixture will contain 10 lbs. of Copper Sulfate Pentahydrate and 10 lbs. of hydrated lime mixed into 100 gallons of water.

   - o Preparation of Bordeaux Mixture: To prepare a Bordeaux Mixture, follow these steps: 1. Determine the volume of mixture needed to cover the application sites, 2. Add one forth of that volume to the spray tank; with the agitator running: 3. Add the proper measure of Copper Sulfate Pentahydrate through a copper, bronze, plastic or stainless steel screen to the water, 4. Add one-half of the required water, 5. Add the proper measure of hydrate lime through the same screen and finally, 6. Add the remaining one-forth volume of water.

2. Add the following use precaution section:

   o Use Precautions: Keep the prepared Bordeau Mixture agitated. Uniform application requires adequate agitation to keep the lime and copper sulfate particles suspended. Bordeau Mixture is corrosive to certain metals. Use as a full-cover spray to runoff.

3. Hydrated lire should not be capitolized and the word "spray" with "hydrated spray lime" is not appropriate as used in the proposed labeling the proposed labeling.

4. The liability limitations in the warranty statements may be questionable. The Agency is considering taking action to define what kind of terms in such statements are misleading under FIFRA Section 2(q). Acceptance of this labeling should not be construed as a decision by the Agency that the language is not misleading.

This registration is conditional based on data requirements for supporting copper sulfate products under the EPA Copper Sulfate Registration Standard, dated March, 1986.

A stamped copy of the label is enclosed for your records. Final printed labeling must reflect the corrections and comments above and must be submitted prior to shippment of this product.

Sincerely yours,

Joanne I. Miller
Acting Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H-7505C)

Enclosure

E.Wilson: Diskette #0007a: 04-26-90

FRONT PANEL
(Cominco's logo will appear on top line)

COMINCO

COPPER SULPHATE
SUPERFINE CRYSTALS

(+35 MESH TO 100 MESH)

ACTIVE INGREDIENT:	
Copper Sulphate Pentahydrate* . .	99.0%
INERT INGREDIENTS:	1.0%
TOTAL:	100.0%

* Metallic Copper Equivalent 25.2%

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

PRECAUCION AL USUARIO: Si Usted no lee ingles, no use este producto hasta que le etiqueta hava sido explicado ampliamente.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES, flush with plenty of water. Call a physician.

IF ON SKIN, remove contaminated clothes and shoes and immediately wash skin with soap and plenty of water. See a physician.

IF SWALLOWED, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

Note to physician: probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER -- Causes severe eye and skin irritation. Harmful if absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with the skin, eyes or clothing. Avoid breathing dust. Protective clothing, including goggles, should be worn. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

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 sulphate 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 in order to avoid depletion of oxygen levels due to decaying vegetation. Allow 1 to 2 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. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of EPA.

BEST AVAILABLE COPY

RQ 10/4.54
CUPRIC SULPHATE
NA9109

EPA Reg. No. 60058-1
EPA Est. 60058-CN-001

ACCEPTED with COMMENTS In EPA Letter Dated:
APR 26 1990

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 60058-1

NET WT. 50 LBS.
(22.7 KILOS)

COMINCO FERTILIZERS
A DIVISION OF COMINCO LTD.
426, 10333 SOUTHPORT ROAD S.W.
CALGARY, ALBERTA, CANADA T2W 3X6

(SEE BACK PANEL FOR DIRECTION FOR USE)

COPPER SULPHATE

DIRECTIONS FOR USE

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

RE-ENTRY STATEMENT

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. Do not enter treated areas without protective clothing until sprays have dried. Certain states require more restrictive reentry 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 areas about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written and oral warnings must include the following information: **DANGER:** Area treated with Copper Sulphate on (date of application). Do not enter without appropriate protective clothing until sprays have dried. Required protective clothing: long sleeved shirt and long legged pants. In case of accidental exposure, wash all exposed skin areas with plenty of soap and water. Because certain states may require restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

STORAGE AND DISPOSAL

Store in a cool, dry place. Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. If container is damaged, place container in a plastic bag. Shovel any spills into plastic bag and seal with tape. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instuctions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities.

GENERAL INSTRUCTIONS

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

FEED ADDITIVE

Copper Sulphate is a valuable dietary supplement in mixed feeds for cattle, hogs, chickens and other agricultural animals. Please consult your State Agricultural Experiment Station or State Extension Service for guidance in preparing dosages and formulas.

ALGAE CONTROL

When using Copper Sulphate Pentahydrate to control algae, there are many factors to consider such as water hardness, temperature of the water, type and quantity of vegetation to be controlled and the amount of water flow. Algae can be controlled more easily and effectively if treatment with Copper Sulphate is made soon after plant growth has started. Under such circumstances, small amounts of Copper Sulphate can effectively control algae in water. However, if treatment is delayed until large amounts of algae are present, larger quantities of Copper Sulphate will be required. Control of algae in water systems is not always permanent. Usually algae is more difficult to control with Copper Sulphate when water temperatures are low. The dose rates for Copper Sulphate are based on a water temperature of 60°F or higher. Larger quantities of Copper Sulphate will be required in hard water. Normally, larger quantities of Copper Sulphate will be required to kill algae in water that is flowing than in a body of stagnant water. If possible, curtail the flow of water before treatment and hold dormant for about three days after treatment or until plants have begun to die. When preparing a Copper Sulphate solution in water, it is best that the mixing vessel be made of plastic or glass. Metal containers lined with plastic or painted or enameled are permissible. Galvanized containers are to be avoided. It is usually best to treat algae on calm sunny days when heavy mats of filamentary algae are most likely to be floating on the surface where it can be sprayed directly. When in doubt about the concentration to be used, it is recommended to start with a lower concentration and gradually increase the concentration until the algae is killed.

CALCULATIONS FOR AMOUNT OF WATER AND COPPER SULPHATE PENTAHYDRATE TO BE USED

A. Calculate water volume as follows:

1. Obtain surface area by measuring regular shaped ponds or mapping irregular ponds or by use of previously recorded data or maps.

2. Calculate average depth by sounding in a regular pattern and taking the mean of these readings or by use of previously recorded data.

3. Multiply surface area in square feet by average depth in feet to obtain cubic feet of water volume, or

4. Multiply surface area in acres by average depth in feet to obtain total acre feet of water volume.

B. Calculate weight of water to be treated as follows:

1. Multiply volume in cubic feet by 62.44 to obtain total pounds of water, or

2. Multiply volume in acre feet by 2,720,000 to obtain total pounds of water.

C. Calculate amount of Copper Sulphate Pentahydrate to add:

To calculate the weight of Copper Sulphate Pentahydrate needed to achieve the desired concentration, multiply the weight of water in pounds by the recommended concentration. Since the recommended concentrations are given in parts per million (ppm), first convert the value to a decimal equivalent. A value of 1 ppm is equivalent to 0.000001 as a decimal value. Thus the amount of Copper Sulphate Pentahydrate would be (0.000001 x 2,720,000) = 2.72 lbs. Copper Sulphate Pentahydrate.

Treatment of algae can result in oxygen loss from decomposition of dead algae. This loss can cause fish suffocation. Therefore, to minimize this hazard, treat 1/3 to 1/2 of the water area in a single operation and wait 7 to 14 days between treatments. Begin treatments along the shore and proceed outwards in bands to allow fish to move into untreated water.

NOTE: If treated water is to be used as a source of potable water, the metallic copper residual must not exceed 1 ppm (4 ppm Copper Sulphate Pentahydrate).

SPECIFIC INSTRUCTIONS

TO CONTROL ALGAE IN IMPOUNDED WATER, LAKES, PONDS, AND RESERVOIRS:

There are several methods by which to apply Copper Sulphate to impounded water. Probably the simplest and most satisfactory method is to dissolve the Copper Sulphate crystals in water and to spray this solution over the body of water. A small pump mounted in the boat can easily be used for this purpose. Crystals may be broadcast directly on the water surface from a properly equipped boat. A specially equipped air blower can be used to discharge these size crystals at a specific rate over the surface of the water. When using this method, the wind direction is an important factor. Do not use this method unless completely familiar with this type of application. Copper Sulphate Crystals are also designed to be used as a dry application from airplanes, using a maximum of 53 pounds per acre. Where the situation permits, Copper Sulphate may be applied under the water by dragging burlap bags containing Copper Sulphate. The crystals are placed in burlap bags and dragged through the water by means of a boat. Begin treatment along the shoreline and proceed outward until one-third to one-half of the total area has been treated. Care should be taken that the course of the boat is such as to cause even distribution of the chemical in large lakes. It is customary for the boat to travel in parallel lines about 20 to 100 feet apart. Continue dragging the burlap bags over the treated area until the minimum dosage is achieved and all crystals have been dissolved. Copper Sulphate Crystals should be used with this method since they dissolve slowly and evenly.

TO CONTROL ALGAE IN RICE FIELDS (Domestic and Wild):

Application should be made when algae has formed on the soil surface in the flooded field. Applications are most effective when made prior to the algae's leaving the soil surface and rising to the water surface. Apply 10-15 pounds Copper Sulphate Pentahydrate to the water surface or dissolve in water and make a surface spray. Apply higher rate in deeper water (6 inches or greater)

BACK LEFT PANEL

CONTROL OF TADPOLE SHRIMP IN FLOODED RICE FIELDS: (Domestic and Wild):

Copper Sulphate Pentahydrate is recommended for the control of Tadpole Shrimp in rice fields. Copper Sulphate should be applied at a rate of 10 to 15 pounds per acre by mixing with 60 gals. of water and applying as a uniform surface spray using boat, plane or other professional means and pressurized spray device. This product is also designed to be used as a dry application from airplanes, using 10 to 15 pounds per acre. Use at the first indication of infestation after the field has been flooded to a depth of 6 to 8 inches. Copper Sulphate Pentahydrate is especially made for maximum solubility in this volume of water.

COPPER SULPHATE REQUIRED FOR TREATMENT OF DIFFERENT GENERA OR ALGAE

The genera of algae listed below are commonly found in waters of the United States. Use the lower recommended rate in soft waters (less than 50 ppm methyl orange alkalinity) and the higher concentration in hard water (above 50 ppm alkalinity). Always consult State Fish and Game Agency before applying this product to municipal waters.

BACK RIGHT PANEL

· SEWER TREATMENT - ROOT DESTROYER

A. For Partial Stoppage - Add 1/2 pound of Copper Sulphate 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.

WOOD TREATMENT

(green, peeled posts)-fungus decay rot

Prepare a solution of 18.0 pounds of sodium chromate in each 26 gallons of water to be used and a separate second solution of 18.0 pounds of Copper Sulphate in each 24 gallons of water to be used, soak the peeled, green posts, butt end down first in the Copper Sulphate solution for 3 days, then butt end down in sodium chromate solution for 2 days, and finally, turn the posts upside down in the sodium chromate solution for 1 additional day. Remove and rinse posts with clear water.

TOP OF BACK RIGHT PANEL

ORGANISM	1/4 to 1/2 ppm*	1/2 to 1 ppm*	1 to 1-1/2 ppm*	1-1/2 to 2 ppm*
Cyanophyceae (Blue Green)	Anabaena Anacystis Aphanizomenon Gloeotrichia Gomphosphaeria Polycystis Rivularia	Cylindrospermum Oscillatoris Plectonema	Nostoc Phormidium	Calothrix Symploca
Chlorophyceae (Green)	Closterium Hydrodictyon Spirogyra Ulothrix	Botryococcus Cladophora Coelastrum Draparnaldia Enteromorpha Gloeocystis Microspora Tribonema Zygnema	Chlorella Crucigenia Desmidium Golenkinia Occystis Palmella Pithophora Staurastrum Tetraedron	Ankistrodesmus Chara Nitella Scenedesmus
Diatomaceae (Diatoms)	Asterionella Fragilana Melorisa Navicula	Gomphonema Nitzschia Stephanodiacus Synedra Tabellaria	Achnanthes Cymbella Neidium	
Protozoa (Flagellates)	Dinobryon Synura Uroglena Volvox	Ceratium Cryptomona Euglena Glenodinium Mallomonas	Chlamydomonas Haematococcus Paridinium	Eudorina Pandorina

* 1/4 to 1/2 ppm = 0.67 to 1.3 lbs/acre ft

* 1/2 to 1 ppm = 1.3 to 2.6 lbs/acre ft

* 1 to 1-1/2 ppm = 2.6 to 3.9 lbs/acre ft

* 1-1/2 to 2 ppm = 3.9 to 5.32 lbs/acre ft

BORDEAUX MIXTURE

HOW TO PREPARE A BORDEAUX MIXTURE

Ingredients and Dosage Rates: A Bordeaux Mixture is composed of three ingredients: Copper Sulphate Pentahydrate, hydrated spray lime, and water. In the instructions stated below for various crops, dosage rates are given in terms of the ratio of three numbers, referring to the relative amounts of these three ingredients that should be used. E.g., if the instructions refer to a "10-10-100 Bordeaux Mixture," the proper dosage is a mixture containing a ratio of 10 pounds of Copper Sulphate Pentahydrate, plus 10 pounds of hydrated spray lime, for every 100 gallons of water. (If more or less Bordeaux Mixture is desired, the amounts of all ingredients should remain in this same proportion.) Use as a full-coverage spray to runoff.

Preparation of the Mixture: To prepare a Bordeaux Mixture, follow these steps: (1) determine the volume of the mixing tank, and calculate how much of each ingredient will be needed for the dosage rate desired; (2) fill the tank one quarter full with water; (3) with the agitator running, mix the Copper Sulphate Pentahydrate into the tank through a copper, bronze, plastic, or stainless steel screen; (4) add water until the tank is three-quarters full; (5) mix the hydrated spray lime through the screen: and (6) add the balance of the water. Do not allow mixture to stand before use. Spray mixtures and liquid formulations are corrosive to certain metals.

CROPS

Almonds, Apricots, Peaches, Nectarines: 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: 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 the State Extension Service.

Lemons, Oranges, Grapefruit: Brown Rot (Phytophthora) - Prepare and apply a 3-4 1/2-100 Bordeaux Mixture where there is no history of copper injury. Prepare and apply a 2-6-100 Bordeaux Mixture with 3 pounds of Zinc Sulphate (as a micronutrient additive) where injury has occurred. Apply 6 gallons of spray 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 a severe Brown Rot season, apply second application in January or February.

Fruit and Leaf Spot (Septoria) (in Central California), Brown Rot, Zinc and Copper Deficiencies - Prepare and apply a 2-6-100 Bordeaux Mixture with 3 pounds of Zinc Sulphate (as a micronutrient additive). Apply 10 to 25 gallons to completely cover each tree. Apply in October, November or December just before or after first rain.

Walnuts: Walnut Blight - Apply 15 pounds Copper Sulphate 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 nonphytotoxic 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 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.

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 LABEL: COPPER SULPHATE"
"EPA Reg. No. 60058-1/
EPA Est. No. 60058-CN-001"
"CHEMIGATION"

CONDITIONS OF SALE
LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

The directions for use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use of application, all of which are beyond the control of Cominco Fertilizers or the Seller. All such risks shall be assumed by the purchaser and user.

Cominco Fertilizers warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the inherent risks referred to above. Cominco Fertilizers makes no other warranty or representation of any kind express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE and no such warranties shall be implied by the law.

The exclusive remedy against Cominco Fertilizers for any cause of action relating to the handling or use of this product is a claim for damage and in no event shall damages or any other recovery of any kind against Cominco Fertilizers, A Division of Cominco Ltd., exceed the price of the product which causes the alleged loss, damage, injury or other claim. Cominco Fertilizers shall not be liable and any and all claims against Cominco Fertilizes are waived for special, indirect, incidental, or consequential damages or expenses of any nature including, but not limited to loss of profits or income, and crop or property loss or damage, whether or not based on Cominco Fertilizers negligence, breach of warranty, strict liability in tort or any other cause of action.

Cominco Fertilisers and the Seller offer this product and the buyer and user accept it subject to the foregoing conditions of sale and limitations of warranty, liability and remedies which may only be varied by agreement in writing signed by a duly authorized representative of Cominco Fertilizers.

EPA Reg. No. 60058-1

EPA Est. No. 60058-CN-001

THIS PRODUCT IS MANUFACTURED BY:
COMINCO LTD.
TRAIL, BRITISH COLUMBIA, CANADA

(BOTTOM CENTER OF BACK PANEL)

1 of 11

SUPPLEMENTAL LABEL: COPPER SULPHATE
EPA Reg. No. 60058-1/EPA Est. No. 60058-CN-001

CHEMIGATION

This bulletin contains supplemental Directions for Use which do not appear on the package of this product. This labeling must be in the possession of the user at the time of pesticide application. Refer to the primary label for Precautionary Statements, and Storage and Disposal Directions.

DIRECTIONS FOR USE

It is a violation of Federal laws to use this product in a manner inconsistent with its labeling. If this product is intended to be applied by chemigation, follow these directions

Apply this product only through a sprinkler including center pivot, lateral move, end tow, side wheel roll, traveler, big gun, solid set, or hand move; flood (basin); furrow; border; or drip (trickle) irrigation system. Do not apply this product through any other type of irrigation system.

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, contact State Extension Services 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 about 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.

POSTING OF AREAS TO BE CHEMIGATED

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as a golf course or retail greenhouse.

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of each sign shall face away from the treated area and toward the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be of a color which contrasts sharply with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER. A small-scale example of an acceptable sign follows

KEEP OUT

PESTICIDES IN
IRRIGATION WATER

Posting required for chemigation does not replace other posting or reentry interval requirements for farm worker safety.

PUBLIC WATER SYSTEMS

A public water system is a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A chemigation system connected to a public water system must contain a functional, reduced-pressure zone and a backflow preventer (RPZ), or the functional equivalent, in the water supply line upstream from the point

of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. 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 contain a functional, normally close, selenoid 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 or, in cases, where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as positive displacement injection pump (e.g., diaphragm pump), effectively 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. If you prefer to make a Copper Sulphate Solution, mix 2.75 pounds of crystals to one gallon of water to make a 25 percent Copper Sulphate Solution. Slowly add crystals to water while agitating until all crystals are dissolved. Use one gallon of solution for every 2.5 pounds of Copper Sulphate (crystals equivalent) desired. Follow directions on the package regarding application.

SPRINKLER CHEMIGATION

If the product is to be applied via a sprinkler system, 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, atuomatic, 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, selenoid-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 metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials compatible with pesticides and capable of being fitted with a system interlock.

Do not apply product when wind speed favors drift beyond the area intended for treatment. If you prefer to make a Copper Sulphate Solution, mix 2.75 pounds of crystals to 1 gallon of water to make a 25 percent Copper Sulphate Solution. Slowly add crystals to water while agitating until all crystals are dissolved. Use one gallon of solution for every 2.5 pounds of Copper Sulphate (crystals equivalent) desired. Follow directions on the package regarding application.

When mixing a Bordeaux mixture keep the agitator running in the spray tank until spraying is completed. Apply the Copper Sulphate Bordeaux Mixture continuously for the duration of the water application. If this is impractical, apply this product at the end of the application cycle. Follow directions on the primary label covering the crop to be treated.

FLOOD (BASIN), FURROW AND BORDER CHEMIGATION

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops. A system utilizing a pressurized water and pesticide injection system must meet the following requirements: 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, selenoid-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 water pressure decreases to the point where pesticide distribution is adversely affected. The system must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. If you prefer to make a Copper Sulphate Solution, mix 2.75 pounds of crystals per gallon of water to make a 25 percent Copper Sulphate Solution. Slowly add the crystals to the water while agitating until all crystals have dissolved. Use one gallon for every 2.5 pounds of Copper Sulphate crystals equivalent desired. Apply Copper Sulphate continuously for the duration of the water application. If this is impractical, apply this product at the end of the application cycle. Follow directions on the primary label covering the specific crop to be treated.

COMINCO LABEL
MANUFACTURED BY
COMINCO LTD.
TRAIL, BRITISH COLUMBIA