#### ISK BIOSCIENCES"

# Agricultural Fungicide/ Bactericide

(Water Dispersible Granules)

#### Active ingredients:

| Chlorothalonil (tetrachloroisophthalonitrile)   | 27.0%  |
|---|--------|
| Copper Oxychloride*                             | 45.8%  |
| Maneb (manganese ethylene bisdithiocarbamate)** | 5.4%   |
| Inert ingredients:                              | 21.8%  |
| Total:  | 100.0% |

- \*Metallic copper equivalent 27 0%
- \*\*Equivalent to manganese metallic 1 1%

## 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 the label, find surfieone to explain it to you in Jetail.)

See side panel for additional precautionary statements

3311 4035-8035-9405

#### Bravo® C/M

A Broad Spectrum Agricultural Fungicide/ Bactericide

Read entire label carefully and use only as directed.

# Precautionary Statements Hazards to Humans and Domestic Animals DANGER

Causes irreversible eye damage. Harmful if swallowed or absorbed through skin. DO NOT get in eyes, on skin or on clothing. DO NOT take internally. Avoid breathing spray mist

Note to User: This product may produce mild bronchial irritation and temporary irritation of the skin characterized by redness or rash on exposed skin areas. Affected persons should consul. a physician.

#### First Aid

If in eyes: Flush eyes with plenty of water for 15 minutes. Call a physician.

If on skin: Wash with plenty of soap and water. Get medical attention.

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: Persons having temporary irritation respond to treatment with antihistamines or steroid creams and/or systemic steroids

#### Personal Protective Equipment (PPE):

Applicators and other handlers (other than mixers and loaders) must wear: coveralls over long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, chemical-resistant apron when cleaning equipment, and a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C). Mixers and Loaders must wear: coveralls over long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, protective eyewear, chemical-resistant headgear, chemical-resistant apron when mixing or loading, and dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this 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.

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

Human flaggers must be in enclosed cabs. The enclosed cab must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

Users should:

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

#### **Environmental Hazards**

This pesticide is toxic to fish, aquatic invertebrates, and marine/estuarine organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT apply when weather conditions favor drift from treated areas DO NOT contaminate water when disposing of equipment washwaters.

#### **General Information**

BRAVO C/M contains chlorothalonit which is an excellent fungicide when used according to tabel directions for control of a broad spectrum of diseases of tomatoes. In addition, BRAVO C/M contains copper oxychloride plus maneb to provide control of bacterial spot and bacterial speck of tomatoes when applied as indicated in the following use directions.

BRAVO C/M is a broad spectrum protectant fungicide/bactericide which is must effective when applied in dilute sprays. Applications should be started early before infection and continued as indicated in the Directions for Use. Application should be made at the recommended label rate.

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and timing starting at the first sign of disease. first report of disease in the area, or when environmental conditions become favorable for disease development. Thorough, uniform coverage is essential for effective disease control.

DO NOT combine BRAVO C/M in the spray tank with surfactants, fertilizers or other pesticides unless your prior use has shown the combination physically compatible, effective and non-injurious under your conditions of use.

DO NOT combine BRAVO C/M with Dipel 4L. Foil, Triton AG-98, Triton B-1956, Latron B-1956 or Latron AG-98 as phytotoxicity may result from the combination when applied to the crops on this label.

Diget is a registered trademark of Abbott Laboratories; Foil is a registered trademark of Ecogen Corporation, Triton AG-98 Trilon B-1956, Catron B-1956 and Calton AG-98 are trademarks of Rohm and Haas Company

The required amount of BRAVO C/M should be added slowly into the spray tank during filling. Keep agitator running when filling spray tank and during spray operations. DO NOT use on greenhouse-grown tomatoes.

#### **Directions for Use**

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

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Where EBDC products used allow the same maximum poundage of active ingredient per acre per season.

If more than one product containing an EBDC active ingredient (mane), mancozeb, or metiram) is used on a crop during the same growing season and the EBIXC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not emsed any of the specified individual EBDC product maximum seasonal poundage of active inovertient allowed per acre.

Where EBDC products used show different maximum poundage of active ingredient per acre per sousout -

If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maxin, an poundage of active ingredical per screeper season, then the total pourriege of ail such FBDC products used must not exceed the lowest specified individual EBDC product maximum sersonal poundage of active ingredient a lowed per acre.

#### Seed Treatment

In addition to the maximum number of foliar applications permitted by the formula stated above, a single application or seed treatment may be made on crops which have registered seed treatment uses."

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, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. If also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPF), 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 48 hours.

PPF required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been freated, such as plants, soil, or water, is: coveralls over long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, protective eyewear, and chemicalresistant headgear for overhead exposure.

For Use on Tomatoes: BRAVO C/M is a specially designed product which controls bacterial and fungal diseases of tomato. The following diseases: can be controlled through proper use of BRAVO C/M:

| DISEASES                              | Pathogen                                   |  |
|---------------------------------------|--|--|
| Bacterial Spot                        | (Xanthomonas campestris pa<br>vesicatoria) |  |
| Bacterial Speck                       | (Pseudomonas syringae pv<br>lycopersicae)  |  |
| Target Spot                           | (Corynespora cassiicola)                   |  |
| Early Blight                          | (Allernaria solani)                        |  |
| Late Blight                           | (Phytophthora intestans)                   |  |
| Gray Leaf Mold                        | (Cladosporium fulvum)                      |  |
| Gray Leal Spot                        | (Stemphylman sp.)                          |  |
| Septoria Leafspot                     | (Septoria lycopersici)                     |  |
| Alternaria Fruit Rol<br>or Black Mold | (Allernana alternata)                      |  |
| Gray Mold                             | (Botrytis cinerea)                         |  |
| Rhizoctonia Fruit Rot                 | (Rhizoctoriia spp.)                        |  |
| Anthracnose                           | (Colletotrichum phomoides)                 |  |

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Apply in sufficient water to obtain complete coverage of canopy, generally 50 to 125 gallons per acre. On upright staked tomatoes use application equipment capable of thoroughly covering the crop canopy, generally over-row sprayers with vertical boom orientation. On bush tomatoes, use

nozzle placement that will insure thorough coverage of the canopy. Begin applications when dew or rain occur and disease threatens. Repeat applications on a weekly schedule, using the following rates:

| appli  | Total number applications | Application rate per acre | Recommended<br>spray volume (gal/a) |                 |
|--------|---------------------------|---------------------------|-------------------------------------|-----------------|
|        | per season                | (ibs. BRAVO C/M)          | Pre-bloom                           | Bloom - Harvest |
| Weekly | 6 West of MR*             | 4 - 6                     | 50 - 75                             | 75 - 125        |
|        | 12 East of MR             |                           |                                     |                 |

\*MR = Mississippi River

When conditions favor severe disease, use the highest rate listed. DO NOT apply more than 6 lbs. of BRAVO C/M per acre in any application. DO NOT apply BRAVO C/M within 5 days of harvest.

### Application and Calibration Techniques for Sprinkler Irrigation

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set and portable (wheel move, side roll, end tow, or hand move) irrigation system(s). 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 non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

DO NOT apply this product through irrigation systems connected to a public water system. "Public water system", means 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 per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

Always inject BRAVO C/M into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.

Pesticide injection equipment must be fitted with a functional, normally closed solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

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 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.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. DO NOT apply when wind speed tavors drift beyond the area intended for treatment.

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, lapor 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.

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 location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards. 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 1-1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts 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.

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

BRAVO C/M may be used through two basic types of sprinkler irrigation systems a contlined in Sections A and B below. Determined which type of system is in place, then refer to the appropriate directions provided for each type.

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#### A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump, of either diaphragm or niston type, constructed of materials that are ompatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered. Thoroughly mix recommended amount of BRAVO C/M for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until BRAVO C/M has been cleared from last sprinkler head.

#### B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of BRAVO C/M for acreage to be covered with water so that the total mixture of BRAVO C/M plus water in the injection tank is equal to the quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Aditation is recommended. BRAVO C/M can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until BRAVO C/M has been cleared from last sprinkler head.

#### Storage and Disposal

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Storage: Store in a cool place. Protect from excessive heat

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray 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 gui Jance.

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

## Warranty and Limitation of Damages

Seller warrants to those persons lawfully acquiring title to the product that at the time of the first sale of this product by seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use and Buyers and users of this product assume the risk of any use contrary to such directions, SELLER MAKES NO. OTHER EXPRESS OR IMPLIED WARRANTY. **INCLUDING ANY OTHER EXPRESS OR IMPLIED** WARRANTY OF FITNESS OR OF MERCHANTABIL-ITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in the Directions for Use of this product, weather conditions, cultural practices, moisture conditions, or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.

BRAVO is a registered trademark of ISK Biosciences Corporation.

ISK Blosciences Corporation 5966 Heisley Road P.O. Box 8000 Mentor, Ohio 44061-8000

EPA Reg. No. 50534-191 EPA Est. No. 37429-GA-1



Mr. Ralph P. Burton ISK Biotech Corporation P.O. Box 8000 Mentor, OH 44061-8000

Dear Mr. Burton:

Subject: Revised Labels from EBDC Hearing

Bravo C/M

EPA Registration No. 50534-191

Your Submission Dated October 7, 1994

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

- 1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
  - a. In the Spanish language statement on the container label correct the spelling of "en".
  - b. Title 40 Code of Federal Regulations § 152.206(a) requires that the Worker Protection Standard (WPS) re-entry statements and Agricultural Use Requirements to be near the beginning of the Directions For Use section.
  - c. Above "Foliar Application" add the heading:

Maximum Seasonal Poundage When Used In Conjunction With One or More Other EDBC Pesticides

d. In the Chemigation Directions delete "This sign is in addition to any sign posted to comply with the Worker Protection Standard". The WPS text for this product does not require posting.

2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

Sincerely yours,

Jus

Cynthia Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (7505C)

cc: Carl Grable Ph.D.
Product Manager Team 21
Fungicide-Herbicide Branch
Registration Division (7505C)

**Net Contents: 10 Pounds** 

ACCEPTED with COMMENTS In EPA Letter Dated:

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50534-191

## ISK BIOSCIENCES"

# Agricultural Fungicide/Bactericide (Water Dispersible Granules) Active Ingredients: Chlorothalonii (tetrachloroisophthalonitrile) 27.0%

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Inert Ingredients: 21.8%
Total:

\*Metallic copper equivalent 27.0%
\*\*Equivalent to manganese
metallic 1.1%

# Keep Out of Reach of Children DANGER – PELIGRO

See side panel for additional precautionary statements.

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

ISK Biosciences Corporation 5966 Heisley Road P.O. Box 8000 Mentor, Ohio 41031-6000

EPA Reg. No. 50534-191

EPA Est. No. 37429-GA-1

BRAVO is a registered trademark of ISK Biosciences Corporation.

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# Precautionary Statements Hazards to Humans and Domestic Animals Danger

Causes irreversible eye damage. Harmful if swallowed or absorbed through skin. DO NOT get in eyes, on skin or on clothing. DO NOT take internally. Avoid breathing spray mist.

Note to User: This product may produce mild bronchial irritation and temporary irritation of the skin characterized by redness or rash on exposed skin areas. Affected persons should consult a physician.

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

#### Warranty and Limitation of Damages

Seller warrants to those persons lawfully acquiring title to this product that at the time of the first sale of this product by seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use and Buyers and users of this product assume the risk of any use contrary to such directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in the Directions for Use of this product, weather conditions, cultural practices, moisture conditions, or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.

PLACE INSERT POUCH HERE

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

Use this product only in accordance with its labeling with the Worker Protection Standard, 40 CFR part Refer to supplemental tabeling under "Agricultural Requirements" in the Directions for Use section for it mation about this standard. Agricultural Use Requirements

ENCLOSED FOLDER FOR