STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333

PAUL R. LEPAGE
GOVERNOR

To: Board of Pesticides Control Members
From: Mary Tomlinson, Pesticides Registrar/Water Quality Specialist
RE: EPA Special Local Need (SLN) [FIFRA, Section 24(c)] request to extend the use of Bravo ZN, EPA Reg. No. 50534-201, for control of late blight *(Phytophthora infestans)* in long-season potatoes

State Supplemental Special Local Need (SLN) [FIFRA, Section 24(c)] request to extend the use of Bravo ZN, EPA Reg. No. 50534-201-100, for control of late blight *(Phytophthora infestans)* in long-season

Date: May 4, 2016
****

Enclosed is the above referenced Special Local Need (SLN) [FIFRA, Section 24(c)] application and supporting documents for your consideration.

The Special Local Needs (24c) request to extend the use of Bravo ZN (EPA Reg. No. 50534-204-100) limits use to long-season potatoes during epidemics of severe late blight (*Phytophthora infestans*). The request is in response to high levels of late blight present in recent growing seasons in Maine, according to Steve Johnson, Ph.D., Crops Specialist, at the University of Maine Cooperative Extension. The continued use of this product at the higher rate will permit growers the needed flexibility to respond more effectively during unique growing conditions that promote late blight. When the initial SLN was approved in 2010, the Board requested a report from Dr. Johnson. This report of January 26, 2011 is again included for your review.

EPA only permits issuance of an SLN on a primary product registration; however, states are permitted to issue a state supplemental SLN for a supplementally distributed product, assuming the basic registrant has approved the distributor's request for an SLN and the state has issued an SLN for the primary product. GB Biosciences supports Syngenta Crop Protection, LLC's request for a supplemental SLN, for use of Bravo ZN (EPA Reg. No. 50534-204-100), on long-season potatoes during epidemics of severe late blight (*Phytophthora infestans*).

Please review the following documents and let me know if you have any questions.

- FIFRA, Section 24(c) application
- Letter of request from GB Biosciences Corporation / Syngenta Crop Protection, LLC
- Letters of request from Steve Johnson, Crops Specialist, Maine Cooperative Extension
- Bravo ZN ME-100001 report S Johnson 01-25-2011
- Bravo ZN ME-100001 draft Maine SLN label (GB Biosciences Corp.)
- Bravo ZN ME-100001b draft Maine SLN label (Syngenta Crop Protection, LLC)
- Bravo ZN Section 3 container label
- Bravo ZN SDS

Please review these materials and let me know if you have any questions.

HENRY JENNINGS, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-2731
WWW.THINKFIRSTSPRAYLAST.ORG

Form Approved. OMB No. 2070-0182 Approval expires 5-31-15

United States Environmental Protection Agency
Office of Pesticide Programs. Registration Division (7505C)
Washington, DC 20460

Application for/Notification of State Registration of a Pesticide To Meet a Special Local Need

(Pursuant to section 24(c) of the Federal Insecticide, Fungicide, and Rodenticide Act as Amended)

For State Use Only

Registration No. Assigned
ME-100001

Date Registration Issued

1. Name and Address of Applicant for Registration
GB Biosciences Corporation
P. O. Box 18300
Greensboro, NC 27419-8300

2. Product is (Check one)

EPA-Registered ☒

EPA Registration Number
50534-204

New (not EPA-registered) ☐
☐ Attach EPA Form 8570–4, Confidential Statement of Formula for new products.

EPA Company Number
50534

3. Active Ingredient(s) in Product
Chlorothalonil

4. Product Name
Bravo Zn®

5. If this is a food/feed use, a tolerance or other residue clearance is required. Cite appropriate regulations in 40 CFR Part 180, 185, and/or 186. 40 CFR 180.275

6. Type of Registration (Give details in Item 13 or on a separate page, properly identified and attached to this form):

- ☐ a. To permit use of a new product.
- ☒ b. To amend EPA registrations for one or more of the following purposes:
  - ☐ (1) To permit use on additional crops or animals.
  - ☐ (2) To permit use at additional sites.
  - ☐ (3) To permit use against additional pests.
  - ☐ (4) To permit use of additional application techniques or equipment.
  - ☐ (5) To permit use at different application rates.
  - ☒ (6) Other (specify below)

7. Nature of Special Local Need (check one)

- ☐ There is no pesticide product registered by EPA for such use.
- ☒ There is no EPA–registered pesticide product which, under the conditions of use within the State, would be as safe and/or as efficacious for such use within the terms and conditions of EPA registration.
- ☐ As appropriate EPA–registered pesticide product is not available.

8. If this registration is an amendment to an EPA–registered product, is it for a "new use" as defined in 40 CFR 152.3?
☐ Yes (discuss in Item 13 below) ☒ No

9. Has an EPA Registration or Experimental Use Permit for this chemical even been (check applicable box(es), if known):
☒ Sought ☒ Issued ☐ Denied ☐ Cancelled ☐ Suspended
☒ Registration ☐ Experimental Use Permit ☐ No Previous Permit Action

10. Has FIFRA section 24(c) registration for this use of the product ever, by another State, been (check appropriate box(es), if known):
☒ Sought ☒ Issued ☐ Denied ☐ Revoked

If any of the above are checked, list States in Item 13 below.

☐ No FIFRA section 24(c) Action

11. Endangered Species Act: (Give details in Item 13 or on a separate page, properly identified and attached to this form.)

Identify the counties where this pesticide will be used. If Statewide, indicate "all."
ALL
Provide a list of Federally protected endangered/threatened species which occur in the areas of proposed use. **"all"**

Certification
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

12. Indicate use status of Special Local Need, i.e., planned dates of use:
From: March, 2016 **To:** December 31, 2021

Signature of Applicant or Authorized Representative
Pat Dixon

Title
Regulatory Manager

Telephone Number
336-632-2494

Date
03/18/2016

13. Comments (attach additional sheet. if needed)
Comments for Item 6.b.(6): Renewal of existing ME-100001

Comments Item 10: Similar SLN's exist in MI, MN, ND, NE, WI

Determination by State Agency

This registration is for a Special Local Need and is being issued in accordance with section 24(c) of FIFRA, as amended. To the best of our knowledge, the information above is correct, except as noted in "Comments" below or in attachments

Name, Title. and Address of State Agency Official
Mary Tomlinson
Board of Pesticides Control
28 State House Station
Augusta, ME 04333

Title
Pesticides Registrar/Water Quality Specialist

Telephone Number
207-287-7544

Date
May 4, 2016

Comments (by State Agency Only)
Expires December 21, 2021

Received by EPA

GB BIOSCIENCES™ CORPORATION

PO Box 18300
GREENSBORO, NC 27419-8300
TELEPHONE (336) 632-7591
FAX (336) 632-2884

May 2, 2016

Ms. Mary E. Tomlinson
Pesticides Registrar & Water Quality Specialist
Board of Pesticides Control
Maine Department of Agriculture, Conservation and Forestry
28 State House Station
Augusta, ME 04333-0028

Subject: Bravo Zn® (EPA Reg. No. 50534-204)
Active Ingredient: Chlorothalonil
Request to Renew ME-100001 for Control of Late Blight on Long-Season Potatoes

Dear Ms. Tomlinson:

GB Biosciences Corporation, as the primary registrant of Bravo Zn, respectfully requests a five year extension on SLN ME-100001 for control of late blight on long-season potatoes to Syngenta Crop Protection, LLC as the supplemental distributor registrant. GB Biosciences does not distribute or sell Bravo Zn in the marketplace. Bravo Zn is only distributed in the marketplace under a supplemental distributor registration to Syngenta Crop Protection, LLC. Dr. Steven B. Johnson of The University of Maine Cooperative Extension has written a support letter stating that the need still exists.

Enclosed in support of this submission are:

- Draft SLN Label for GB Biosciences
- Draft SLN Label for Syngenta Crop Protection
- EPA SLN Application Form 8570-25
- Support letter from Dr. Steven B. Johnson of The University of Maine Cooperative Extension
- Federal Label for Bravo Zn
- SDS for Bravo Zn

If you have any questions please do not hesitate to call me at 336-632-2494 or email me at pat.dinnen@syngenta.com.

Sincerely,

Pat Dinnen

Pat Dinnen
Regulatory Manager

Enclosures

Potato Program
59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

May 4, 2016

Mary E. Tomlinson
(Mary.E.Tomlinson@maine.gov)
Pesticide Registrar
Maine Board of Pesticides Control / 28 SHS /
Augusta, ME 04333

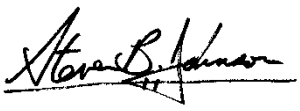
Dear Mary:

I am supporting a 24c SLN label request to the State of Maine for Bravo® Zn (EPA Reg. Number 50534-204-100) to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. (https://extension.umaine.edu/potatoes/wp-content/uploads/sites/97/2015/05/Fungicides-15.pdf) (This would mean raising the allowable use of Bravo® Zn from 21 pints per acre to 30½ pints per acre). I would like to see this limited to "Control of Late Blight *(Phytophthora infestans)* for Long-Season Potatoes." Special local needs (24c) labels for increased total allowable chlorothalonil rates exist in other states (MI, MN, ND, NE, WI).

The need for increased allowable chlorothalonil rates is real. The high levels of late blight present in previous growing seasons in Maine have been very trying. Many growers with long-season varieties ran out of chlorothalonil limits and EDBC materials were not available. I expect Maine growers to only use the increased limits under severe late blight epidemics.

This SLN label would allow the applicators the flexibility to deal with our unique environment. Please feel free to contact me if have questions or require further information.

Sincerely,



Steven B. Johnson, Ph.D.
Crops Specialist

Potato Program
59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

February 2, 2016

Jeff Zelna (jeff.zelna@syngenta.com)
Technical Support Representative
Syngenta Crop Protection
4598 Reliant Rd.
Jamesville, New York 13078

Dear Jeff:

I am repeating the request I made December 3, 2009 as I am told the previously granted request has expired. I am requesting your company to submit a 24c SLN label request to the State of Maine for Bravo® Zn (EPA Reg. Number 50534-204-100) to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. (http://umaine.edu/potatoes/files/2015/05/Fungicides-15.pdf) (This would mean raising the allowable use of Bravo® Zn from 21 pints per acre to 30½ pints per acre). I would like to see this limited to "Control of Late Blight *(Phytophthora infestans)* for Long-Season Potatoes." Special local needs (24c) labels for increased total allowable chlorothalonil rates existed in other states (ME, MI, MN, ND, NE, WI) and I was hoping that your company would support a similar label for Maine. I have enclosed a sample mock up a potential label.

The need for increased allowable chlorothalonil rates is real. The high levels of late blight present in recent growing seasons in Maine have been very trying. Many growers with long-season varieties ran out of chlorothalonil limits and EDBC materials were not available. I expect Maine growers to only use the increased limits under severe late blight epidemics.

This SLN label would allow the applicators the flexibility to deal with our unique environment. The Pesticide Registrar requires a letter requesting a 24 (c) registration and a completed application (8570-25). The contact information is:

Potato Program
59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

Mary Tomlinson (mary.e.tomlinson@maine.gov)
Pesticide Registrar
Maine Board of Pesticides Control
28 State House Station
Augusta, ME 04333-0028
FAX: (207) 287-7548

I urge you to apply to the Maine Board of Pesticides Control at the above address. Please feel free to contact me if have questions or require further information.

Sincerely,

Steven B. Johnson, Ph.D.
Crops Specialist

Potato Program
57 Houlton Road, Presque Isle, ME 04769, (207) 764-3361; Fax (207) 764-3362

January 26, 2011

Mary Tomlinson (mary.e.tomlinson@maine.gov)
Pesticide Registrar
Maine Board of Pesticides Control
28 State House Station
Augusta, ME 04333-0028

Dear Mary:

I supported Syngenta's request for a 24c SLN label request to the State of Maine for Bravo® Zn (EPA Reg. Number 50534-204-100) to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. On April 16, 2010, the Board of Pesticides Control met and the request was moved, seconded, and passed unanimously (**http://www.maine.gov/agriculture/pesticides/pdf/board/agenda_documents/may10/Apr10Min.pdf**).

The request was to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. This is the equivalent increasing the current 21.5 BravoZn pints per acre per year to 28.7 BravoZn pints per acre per year.

I gleaned Bravo as well as BravoZn application data from the Potato IPM database. This database consists, among other data, of a record of the pesticide applications made by the grower.

From the database, 10 growers applied Bravo Zn. The pints per acre per year were: 4.25, 4, 5, 8.5, 9, 9, 9.75, 12.1 2.5, 13.

Potato Program
57 Houlton Road, Presque Isle, ME 04769, (207) 764-3361; Fax (207) 764-3362

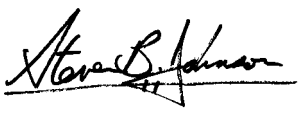
From the database, 31 growers applied Bravo of any formulation. The pints per acre per year were: 1.5, 1.5, 2, 2.5, 3, 4, 4, 4, 4.25, 6, 6.6, 6.75, 7, 7.5, 8, 8.2, 8.5, 8.5, 8.625, 9, 9, 9, 9.25, 10, 10, 10.75, 11.25, 12, 13, 14, 19.

I feel this is a good picture of the practices of the Maine potato industry.

As I recall mentioning at the MBPC meeting, growers do not like putting on pesticides and I feel strongly that they do not put them on unnecessarily. We dedicate a good deal of effort to forecasting the application timings in order to reduce the impact of fungicides in the environment. We had a very dry summer and for the first time on record, I told growers to put the sprayers away. I think most, if not all, did just that. Not one of the growers in our database even put on the 21.5 pints per acre per year. The mean application was 7.7 pints of Bravo per acre. Since no grower reached the limit allowed on the federal label, no grower actually applied the additional amount allowed by the 24c SLN. I am pleased that not only was the additional material not needed in 2010, it was not applied. I think this speaks volumes of the Maine potato industry. I appreciate the MBPC approving the request to "put another tool in the tool belt" of a half a billion dollar industry in Maine.

After the approval, board members also requested a report back on the use of the product and any water quality sampling results. I did none nor do I have water sampling data but I hope this letter suffices for the requested report back on the use of the product. If you have any further questions or require additional information, please feel free to contact me.

Sincerely,



Crops Specialist

Section 24(c) Special Local Need Label

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE

Bravo® Zn
For Control of Late Blight (*Phytophthora infestans*) for Long-Season Potatoes

EPA Reg. No. 50534-204
EPA SLN No. ME-100001

KEEP OUT OF REACH OF CHILDREN
WARNING/AVISO
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 someone to explain it to you in detail.)

This label expires and must not be distributed or used in accordance with this SLN registration after December 31, 2021

DIRECTIONS FOR USE

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This label must be in the possession of the user at the time of application.
- Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA-registered label.

Crop	Disease (Pathogen)	Pints Product/A (lb ai/A)	Application Directions
Potato (Long-season varieties)	Late Blight (*Phytophthora infestans*)	1 1/2 to 2 1/8 (0.75 to 1.125)	Begin applying at 5 to10 day intervals when Late Blight forecasting measures 18 disease severity values (DSV). Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe. Bravo Zn may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move or center pivot systems only). Do not exceed a 10 day interval between applications when using chemigation. See *Application and Calibration Techniques for Chemigation* on Bravo Zn label
Specific Use Restrictions: Do not apply more than 30½ pints Bravo Zn (16 lb ai) per acre on long-season varieties of potato during each growing season. Do not apply within 7 days of harvest.			

24(c) Registrant:
GB Biosciences Corporation
P. O. Box 18300
Greensboro, NC 27419-8300

Label Code: ME0204015BA0316

Section 24(c) Special Local Need Label

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE

Bravo® Zn
For Control of Late Blight (*Phytophthora infestans*) for Long-Season Potatoes

EPA Reg. No. 50534-204-100
EPA SLN No. ME-100001

KEEP OUT OF REACH OF CHILDREN
WARNING/AVISO
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 someone to explain it to you in detail.)

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Specific Use Restrictions: Do not apply more than 30½ pints Bravo Zn (16 lb ai) per acre on long-season varieties of potato during each growing season. Do not apply within 7 days of harvest.			

24(c) Sub-Registrant:
Syngenta Crop Protection, LLC
P. O. Box 18300
Greensboro, NC 27419-8300

Label Code: ME0204015BA0316

GROUP M5 FUNGICIDE

PULL HERE TO OPEN

SuperWeatherStik®

Bravo® ZN

syngenta®

Agricultural Fungicide

Active Ingredient:	
Chlorothalonil (tetrachloroisophthalonitrile)	38.5%
Other Ingredients:	61.5%
Total:	100.0%

Bravo Zn is formulated as a suspension concentrate (SC).

Contains 4.17 pounds chlorothalonil per gallon

KEEP OUT OF REACH OF CHILDREN.

WARNING/AVISO

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 someone to explain it to you in detail.)

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 50534-204-100

EPA Est. 50534-TX-001^{GBY}

EPA Est. 070989-AR-001^{OMB}

(Superscript is first three letters of batch code on container)

SCP 50534-204A-L1H 0814
4044588

2.5 gallons
Net Contents

™

FIRST AID	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call **1-800-888-8372**	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as natural rubber, Selection Category A). Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are made of any waterproof material. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

continued...

PRECAUTIONARY STATEMENTS *(continued)*

Mixers, Loaders, Applicators and all other handlers must wear:

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material
- shoes plus socks

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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

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.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater Advisory

Chlorothalonil is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. 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 manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

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

Bravo Zn should be used only in accordance with recommendations on this label or in separately published SYNGENTA supplemental labeling recommendations for this product.

Do not apply this product in a way that will contact workers, other persons or pets, 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. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- coveralls
- chemical-resistant gloves made of any waterproof material
- shoes plus socks
- protective eyewear

Special Eye Irritation Provisions: This product is a severe eye irritant. Although the restricted-entry interval expires after 12 hours, for the next 6.5 days entry is permitted only when the following safety measures are provided:

(1) At least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site intended for workers entering the treated area.

(2) Workers must be informed, in a manner they can understand:
- that residues in the treated area may be highly irritating to their eyes
- that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes
- that if they do get residues in their eyes, they should immediately flush their eyes using the eyeflush container that is located at the decontamination site, or using other readily available clean water
- how to operate the eyeflush container

PRODUCT INFORMATION

Bravo Zn can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

Resistance Management

GROUP M5 FUNGICIDE

Bravo Zn is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases.

Bravo Zn is recommended for use in programs which are compatible with the principles of Integrated Pest Management (IPM), which include the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides.

Bravo Zn is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site model of fungicidal action. Bravo Zn, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Bravo Zn in programs which seek to minimize the occurrence of disease resistance to other fungicides.

Use Precautions and Restrictions

Do not use on greenhouse-grown crops.

This product must not be applied within 150 feet for aerial applications or 25 feet for ground applications of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.

Do not combine Bravo Zn in the spray tank with pesticides, adjuvants, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. Do not combine Bravo Zn with Dipel®, Latron B-1956® or Latron AG-98® as phytotoxicity may result from the combination when applied to some crops on this label.

Spray Drift Precautions

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off target drift movement from aerial applications to agricultural field crops. These requirements do not apply to conifer applications, public health uses or applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information**.

Aerial Drift Reduction Advisory Information

[This section is advisory in nature and does not supersede the mandatory label requirements.]

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable conditions (See **Wind, Temperature**).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting the nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift potential.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 ft above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

APPLICATION

Note: Slowly invert container several times to assure uniform mixture.

Dosage rates on this label indicate pints of Bravo Zn per acre, unless otherwise stated. Under conditions favoring disease development, the high rate specified and shortest application interval should be used.

The required amount of Bravo Zn should be added slowly into the spray tank during filling. With concentrate sprays, premix the required amount of Bravo Zn in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

Apply Bravo Zn in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth.

For field and row crops, spray volume usually will range from 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground sprays and aircraft applications.

For tree and orchard crops, apply Bravo Zn in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. For fruit and nut bearing crops, the maximum volume is 300 gallons per acre unless indicated otherwise in the specific use directions.

Application and Calibration Techniques for Sprinkler Irrigation - Chemigation

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 Zn 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 favors drift beyond the area intended for treatment.

Systems 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.

Bravo Zn may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

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 piston type, constructed of materials that are compatible 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.

Thoroughly mix recommended amount of Bravo Zn 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 Zn 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 Zn for acreage to be covered with water so that the total mixture of Bravo Zn 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. Agitation is recommended. Bravo Zn 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 Zn has been cleared from last sprinkler head.

DIRECTIONS FOR APPLICATION

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Bean (Snap)	Rust (*Uromyces appendiculatus*)	2 to 4 1/4 (1.0 to 2.25)	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage or when disease first threatens and repeat as necessary (the minimum retreatment interval is 7 days) to maintain control. Apply by ground, air or chemigation.
	Botrytis blight (gray mold) (*B. cinerea*)	4 1/4 (2.25)	

Specific Use Restrictions:
- Do not apply more than 17 pints of Bravo Zn (9.0 lb ai) per acre during each growing season.
- Do not apply within 7 days of harvest.

continued...

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Beans (Dry) (except soybeans) bean, adzuki bean, broad bean, dry bean, lablab bean, navy bean, kidney bean, lima bean, moth bean, mung bean, pink bean, pinto bean, tepary bean, urd bean, yardlong catjang chickpea (garbanzo) cowpea lupin, grain lupin bean, rice bean, runner bean, jackbean pea, blackeyed pea, southern	Anthracnose (*Colletotrichum lindemuthianum*) Ascochyta blight (*A. phaseolorum*) Cercospora leaf blotch (*C. cruenta*) Downy mildew (*Phytophthora nicotianae*) Rust (*Uromyces appendiculatus*)	2 to 2 3/4 (1.0 to 1.5)	Use in sufficient water to obtain adequate coverage. Begin applications at first onset of disease, which may occur as early as 2 to 4 weeks before flowering. Repeat applications at 7- to 10-day intervals (the minimum retreatment interval is 7 days). For use only on beans to be harvested dry with pods removed. Apply by ground, air or chemigation.
Specific Use Restrictions: • Do not apply more than 11.5 pints of Bravo Zn (6 lb ai) per acre during each growing season. • Do not apply within 14 days before harvest.			

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Blueberries	**Suppression:** Anthracnose (ripe rot) (*C. gloeosporoides*) Mummy berry (*M. vacciniicorymbosi*)	4 1/4 to 5 3/4 (2.25 to 3.0)	Bravo Zn should be integrated into an overall disease management strategy which includes alternation with a fungicide with a different mode of action. Diseases may only be suppressed and russetting may occur under heavy disease pressure or unfavorable environmental conditions. Apply in sufficient water to obtain adequate coverage, normally 20 to100 gallons per acre. Begin applications at budbreak (green tip) and repeat at 10-day intervals through early bloom (the minimum retreatment interval is 10 days). Under heavy disease pressure, use the higher rate. Apply by ground or air.
	Rust (*Pucciniastrum vaccinii*) Septoria leaf spot (*Septoria albopunctata*)	4 1/4 to 5 3/4 (2.25 to 3.0)	**Foliar Use After Harvest** (after all berries are harvested): To maintain healthy leaves for the following season, apply in sufficient water to obtain adequate coverage (normally 20 to 100 gallons per acre). Repeat at 10- to 14-day intervals (the minimum retreatment interval is 10 days). Apply by ground or air.
Specific Use Restrictions: • Do not apply more than 17 pints of Bravo Zn (9.0 lb ai) per acre during each growing season. • Do not apply after full bloom (except for foliar use after harvest) or within 42 days of harvest.			
Carrots	Alternaria leaf blight (*A. dauci*) Cercospora leaf spot (*C. carotae*)	2 1/4 to 2 3/4 (1.17 to 1.5)	Use in sufficient water to obtain adequate coverage. Start applications when disease threatens and repeat at 7- to 10-day intervals (the minimum retreatment interval is 7 days) to maintain control. Apply by ground, air or chemigation.
Specific Use Restrictions: • Do not apply more than 29 pints of Bravo Zn (15 lb ai) per acre during each growing season. • Bravo Zn may be applied the day of harvest.			

continued...

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Cucurbits **Cantaloupe** **Cucumber** **Honeydew melon** **Muskmelon** **Pumpkin** **Squash** **Watermelon**	Anthracnose (*Colletotrichum* spp.) Downy mildew (*Pseudoperonospora cubensis*) Target spot (*Corynespora cassiicola*)	2 1/4 to 2 3/4 (1.17 to 1.5)	Use in sufficient water to obtain adequate coverage. Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7-day intervals (the minimum retreatment interval is 7 days). Note: Spraying mature watermelons may result in sunburn of the upper surface of the fruit. Do not apply Bravo Zn to watermelons when any of the following conditions are present: 1. Intense heat and sunlight 2. Drought conditions 3. Poor vine canopy 4. Other crop and environmental conditions which may be conducive to increased natural sunburn Do not combine Bravo Zn with anything except water for application to watermelons unless your prior use has shown the combination to be noninjurious to watermelons under your conditions of use. Apply by ground, air or chemigation.
	Alternaria leaf blight (*A. cucumerina*) Alternaria leaf spot (*A. alternata*) Cercospora leaf spot (*C. citrullina*) Gummy stem blight / vine decline (*Didymella bryoniae*) Powdery mildew (*Sphaerotheca only*) Scab (*Cladosporium cucumerinum*)	2 3/4 to 4 1/4 (1.5 to 2.25)	

Specific Use Restrictions:
- Do not apply more than 30 pints of Bravo Zn (15.75 lb ai) per acre during each growing season.
- Bravo Zn may be applied the day of harvest.

<table>
<tr><th>CROP</th><th>DISEASES
(Pathogen)</th><th>PT
PRODUCT/A
(lb ai/A)</th><th>APPLICATION DIRECTIONS</th></tr>
<tr><td>Onion (Dry bulb) and Garlic</td><td>Botrytis leaf blight (Botrytis spp.)
Purple blotch (Alternaria porri)
Suppression:
Botrytis neck rot
Downy mildew (Peronospora destructor)</td><td>1 1/2 to 4 1/4
(0.75 to 2.25)</td><td>Apply in sufficient water to obtain thorough coverage of tops. Bravo Zn is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows:
<table>
<tr><th></th><th>Low Disease Hazard & Prior to Infection</th><th>Low Disease Hazard & Some Disease Present</th><th>High Disease Hazard</th></tr>
<tr><td>Rate per Acre</td><td>1 1/2 pt</td><td>2 pt</td><td>4 1/4 pt</td></tr>
<tr><td>Frequency</td><td>10 days</td><td>7-10 days</td><td>7 days</td></tr>
</table>
For suppression of neck rot (Botrytis spp.) during storage, a minimum of three weekly applications prior to lifting, using 2 to 4 1/4 pints of Bravo Zn per acre, is recommended.
The minimum retreatment interval is 7 days.
Apply by ground, air or chemigation.</td></tr>
<tr><td colspan="4">Specific Use Restrictions:
• Do not apply more than 29 pints of Bravo Zn (15 lb ai) per acre during each growing season.
• Do not apply within 7 days of harvest.</td></tr>
<tr><td>Onion (green bunching)
Leek
Shallots
Onion and Garlic (grown for seed)</td><td>Botrytis leaf blight (Botrytis spp.)
Purple blotch (Alternaria porri)
Suppression:
Downy mildew (Peronospora destructor)</td><td>2 1/4 to 4 1/4
(1.17 to 2.25)</td><td>Use in sufficient water to obtain thorough coverage of tops. Begin applications prior to favorable infection periods, and repeat at 7- to 10-day intervals for as long as conditions favor disease (the minimum retreatment interval is 7 days). Use the high rate and a 7-day schedule of applications when heavy dew or rain persist.
Apply by ground, air or chemigation.</td></tr>
<tr><td colspan="4">Specific Use Restrictions:
• Do not apply more than 13 pints of Bravo Zn (6.75 lb ai) per acre during each growing season.
• Do not apply within 7 days of harvest on garlic.
• Do not apply within 14 days of harvest on green bunching onions, leeks or shallots.</td></tr>
</table>

continued...

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Potato	Black dot (*Colletotrichum coccodes*) Botrytis vine rot (*B. cinerea*) Early blight (*Alternaria solani*) Late blight (*Phytophthora infestans*)	1 1/8 (0.6) - then - 1 1/2 to 2 1/4 (0.75 to 1.17)	Begin applications at the low rate when vines are first exposed and leaf wetness occurs. Repeat applications at 5- to 10-day intervals (the minimum retreatment interval is 5 days). Begin applying the higher label rates at 5- to 10-day intervals when any one of the following events occur: • Vines close within the rows • Late blight forecasting measures 18 disease severity values (DSV) • The crop reaches 300 P-days Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe. Apply by ground, air, or chemigation. Do not exceed a 10-day interval between applications when using chemigation.

Specific Use Restrictions:
- Do not apply more than 21.5 pints of Bravo Zn (11.25 lb ai) per acre during each growing season.
- Do not apply within 7 days of harvest.

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Tomato	**FOLIAGE** Early blight (*Alternaria solani*) Gray leaf mold (*Fluvia fluva; Cladosporium*) Gray leaf spot (*Stemphyllium botryosum*) Late blight (*Phytophthora infestans*) Septoria leaf spot (*S. lycopersici*) Target spot (*Corynespora cassiicola*)	2 to 2 3/4 (1.0 to 1.5)	Apply in sufficient water to obtain adequate coverage. Begin applications when dew or rain occur and disease threatens. Apply on a 7- to 10-day interval for foliage diseases. For fruit diseases, begin at fruit set and apply on a 7- to 14-day interval. Use the highest rate and shortest interval specified when disease conditions are severe. The minimum retreatment interval is 7 days. Apply by ground, air, or chemigation.
	FRUIT Alternaria fruit rot (black mold) (*A. alternata*) Anthracnose (*Colletotrichum* spp.) Botrytis gray mold (*B. cinerea*) Late blight fruit rot (*P. infestans*) Rhizoctonia fruit rot (*R. solani*)	2 3/4 to 4 (1.5 to 2.1)	

Specific Use Restrictions:
- Do not apply more than 28.5 pints of Bravo Zn (15 lb ai) per acre during each growing season.
- Bravo Zn may be applied the day of harvest.

Tree and Orchard Crops

Apply Bravo Zn in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. For fruit and nut bearing crops, the maximum volume is 300 gallons per acre unless indicated otherwise in the specific use directions.

Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, Bravo Zn may be applied with aircraft using at least 20 gallons of spray per acre.

When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of Bravo Zn listed may be used. Do not allow livestock to graze in treated areas.

CROP	DISEASES (Pathogen)	PT PRODUCT PER (lb ai per)		APPLICATION DIRECTIONS
		Acre	100 gal*	
Cherry	Leaf curl (*Taphrina deformans*) Shot hole (*Wilsonomyces carpophilus*)	4 1/2 to 6 (2.3 to 3.1)	1 1/2 to 2 (0.75 to 1.0)	For best control of both diseases, apply at leaf fall in late autumn, using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels, use the high rate of application and apply once or twice more in mid to late winter before budswell. If the leaf fall application is not practical, application of Bravo Zn for control of leaf curl may be made at any time prior to budswell the following spring. Where shothole occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections. Apply by ground or air.
	Brown rot blossom blight (*Monilinia* spp.)	4 1/2 to 6 (2.3 to 3.1)	1 1/2 to 2 (0.75 to 1.0)	Make one application at popcorn (pink, red or early white bud) and a second application at full bloom. If weather conditions favor disease development, make an additional application at petal fall.

CROP	DISEASES (Pathogen)	PT PRODUCT PER (lb ai per)		APPLICATION DIRECTIONS
		Acre	100 gal*	
Cherry *(continued)*	Black knot (cherry) (*Apiosporina morbosa*) Cherry leaf spot (*Blumeriella jaapii*) Scab (*Cladosporium carpophilum*)	4 1/2 to 6 (2.3 to 3.1)	1 1/2 to 2 (0.75 to 1.0)	In addition to the bloom application listed above, make one application at shuck split. Do not apply Bravo Zn after shuck split and before harvest. If additional disease control is needed before harvest, use another registered fungicide. For control of cherry leaf spot after harvest, make one application to foliage within 7 days after fruit is removed. In orchards with a history of high leaf spot incidence, make a second application 10 to 14 days later. Apply by ground or air.

Specific Use Restrictions:
- Do not apply more than 29.5 pints of Bravo Zn (15.5 lb ai) per acre during each growing season.
- The minimum re-treatment interval is 10 days.
- Bravo Zn may be applied through shuck split. Bravo Zn may then again be applied after harvest as indicated.

*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage

Store in a cool place. Protect from excessive heat.

Pesticide Disposal

Pesticide wastes are acutely hazardous. 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 guidance.

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

continued...

STORAGE AND DISPOSAL *(continued)*

Container Handling [greater than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 50534-204A-L1H 0814
4044588

SuperWeatherStik®

Bravo® ZN

GROUP M5 FUNGICIDE

Agricultural Fungicide

Active Ingredient:	
Chlorothalonil (tetrachloroisophthalonitrile)	38.5%
Other Ingredients:	61.5%
Total:	100.0%

Bravo Zn is formulated as a suspension concentrate (SC).

Contains 4.17 pounds chlorothalonil per gallon

See additional precautionary statements and directions for use inside booklet.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 50534-204-100
EPA Est. 50534-TX-001GBY
EPA Est. 070989-AR-001OMB
(Superscript is first three letters of batch code on container)

Manufactured for:
Syngenta Crop Protection LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 50534-204A-L1H 0814
4044588

(01) 0 07 02941 31206 7

2.5 gallons
Net Contents

KEEP OUT OF REACH OF CHILDREN.

WARNING/ AVISO

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 someone to explain it to you in detail.)

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING/AVISO

Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as natural rubber, Selection Category A). Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN: Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
HOT LINE NUMBER: For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call **1-800-888-8372.**
Environmental Hazards: This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.
Groundwater Advisory: Chlorothalonil is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.
Surface Water Advisory: This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.
Chemigation: Refer to supplemental labeling in attached booklet for use directions on chemigation. Do not apply this product through any type of irrigation system, unless the supplemental labeling on chemigation is followed.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.
Pesticide Storage: Store in a cool place. Protect from excessive heat.
Pesticide Disposal: Pesticide wastes are acutely hazardous. 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 guidance.
Container Handling [less than or equal to 5 gallons]: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.
CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

syngenta®

Safety Data Sheet

BRAVO® ZN

Date: 7/8/2015
Replaces: 1/14/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **BRAVO® ZN**
Product No.: A7867G
Use: Fungicide
Manufacturer: Syngenta Crop Protection, LLC
Post Office Box 18300
Greensboro NC 27419

Manufacturer Phone: 1-800-334-9481

Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications:
Skin Corrosion/Irritation: Category 2
Skin Sensitizer: Category 1B
Carcinogenicity: Category 2
Specific Target Organ Toxicity: Repeated Category 2
Specific Target Organ Toxicity: Respiratory Irritation Category 3
Inhalation: Category 2

Signal Word (OSHA): Warning

Hazard Statements:
Causes skin irritation
May cause an allergic skin reaction
Fatal if inhaled
May cause respiratory irritation
Suspected of causing cancer
May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:

Precautionary Statements:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist, vapors, spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, protective clothing, eye protection.
In case of inadequate ventilation wear respiratory protection. See Section 8 Exposure

Control/Personal Protection.

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

If skin irritation or rash occurs: Get medical advice.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If exposed or concerned: Get medical advice/attention.

Immediately call a poison center, doctor or Syngenta.

Call a poison center, doctor or Syngenta if you feel unwell.

Specific treatment is urgent (see Section 4 First Aid Measures).

Take off contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
1,2-Propanediol	Propylene Glycol	57-55-6	Trade Secret
Silica, amorphous	Silica, amorphous	112926-00-8	Trade Secret
Zinc Oxide	Zinc Oxide	1314-13-2	< 6%
Other ingredients	Other ingredients	Trade Secret	> 55.5%
Tetrachloroisophthalonitrile	Chlorothalonil	1897-45-6	38.5%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison contol center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Skin irritation

Allergic skin reaction

Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Propylene Glycol	Not Established	Not Established	10 mg/m³ TWA	AIHA
Silica, amorphous	80 mg/m³/% SiO2 TWA	Not Established	6 mg/m³ TWA	NIOSH

Zinc Oxide	15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable)	2 mg/m³ TWA (total dust); 10 mg/m³ STEL (respirable)	5 mg/m³ TWA (dust); 15 mg/m³ Ceiling	NIOSH
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Chlorothalonil	Not Established	Not Established	0.1 mg/m³ TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use chemical splash goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH certified respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Gray viscous suspension

Odor: Slight

Odor Threshold: Not Available

pH: 7.5 - 9.5

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: 212 °F

Flash Point (Test Method): Not Available

Flammable Limits (% in Air): Not Applicable

Flammability: Not Applicable

Vapor Pressure: Chlorothalonil 0.00000057mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 1.28 g/ml (water = 1)

Solubility (ies): Chlorothalonil 0.81 mg/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Applicable

Autoignition Temperature: Not Applicable

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Material is not known to polymerize.

Conditions to Avoid: None known.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Skin irritation, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Skin irritation, Allergic skin reaction, Respiratory system effects

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	3750 mg/kg body weight
Dermal:	Dermal (LD50 Rabbit) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	0.25 mg/l air - 4 hours
Eye Contact:	Mildly Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	A moderate skin sensitizer in animal tests.	

Reproductive/Developmental Effects

Chlorothalonil: Did not show reproductive toxicity effects in animal experiments. Did not show teratogenic effects in animal experiments.

Chronic/Subchronic Toxicity Studies

Chlorothalonil: In dogs, 1 year administration caused a significant decrease in body weight gain and increases in absolute liver and kidney weights.

Neurotoxicity: No evidence in regulatory studies.

Carcinogenicity

Chlorothalonil: Chlorothalonil causes kidney tumors in rats and mice via a nongentoxic mode of action secondary to target organ toxicity.
Did not show mutagenic effects in animal experiments.
IARC identifies chlorothalonil as a 2B carcinogen (possibly carcinogenic to humans).

Chemical Name	NTP/IARC/OSHA Carcinogen
1,2-Propanediol	No
Silica, amorphous	IARC Group 3
Zinc Oxide	No
Other ingredients	No
Tetrachloroisophthalonitrile	IARC Group 2B

Other Toxicity Information

Studies on rats and mice have suggested that technical chlorothalonil (97%), when fed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil nor its metabolites interact with DNA and thus are not mutagenic. Tumor formation has been related to a non-genotoxic mechanism of action for which threshold levels have been established in rats and mice. Comprehensive dietary and worker exposure studies have shown exposure levels for humans to be well below these threshold levels. In addition, surveillance of chlorothalonil plant workers for over twenty years has not demonstrated any increase in oncogenic potential to humans.

Toxicity of Other Components

Other ingredients

Not Applicable

Propylene Glycol

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Silica, amorphous

Dusts in high concentrations may cause skin, eye and respiratory tract irritation.

Zinc Oxide

Causes respiratory tract irritation. May cause digestive tract irritation. Causes eye and skin irritation. Inhalation of fumes may cause metal-fume fever.

Target Organs

Active Ingredients

Chlorothalonil:	Lung, kidney

Inert Ingredients

Other ingredients:	Not Applicable
Propylene Glycol:	CNS, kidney, liver
Silica, amorphous:	Skin, eye, respiratory tract
Zinc Oxide:	Respiratory tract, digestive tract, eye, skin

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Chlorothalonil:

Green Algae 5-day EC50 190 ppb

Bird (Mallard Duck) LD50 Oral > 4640 mg/kg

Invertebrate (Water Flea) 48-hour EC50 70 ppb

Fish (Rainbow Trout) 96-hour LC50 47 ppb

Environmental Fate

Chlorothalonil:

The information presented here is for the active ingredient, chlorothalonil.
Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
Non-Bulk: Not regulated
Tank Truck:
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant
Hazard Class: Class 9
Identification Number: UN 3082
Packing Group: PG III

Comments

Water Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant
Hazard Class: Class 9
Identification Numbers: UN 3082
Packing Group: PG III

Air Transport
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil)
Hazard Class: Class 9
Identification Numbers: UN 3082
Packing Group: PG III

15. REGULATORY INFORMATION

Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Warning: Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as natural rubber, Selection Category A). Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

EPA Registration Number(s):

50534-204-100

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard

Section 313 Toxic Chemicals: Chlorothalonil 38.5% (CAS No. 1897-45-6)
Zinc Oxide < 6% (CAS No. 1314-13-2)

CERCLA/SARA 304 Reportable Quantity (RQ):
None

RCRA Hazardous Waste Classification (40 CFR 261):
Not Applicable

TSCA Status:
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	3	Health:	2
Flammability:	1	Flammability:	1
Instability:	0	Reactivity:	0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: D,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 11/12/1998
Revision Date: 7/8/2015 Replaces: 1/14/2015
Section(s) Revised: 2, 4, 11

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.