



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

**PAUL R. LEPAGE**  
 GOVERNOR

**WALTER E. WHITCOMB**  
 COMMISSIONER

To: Board of Pesticides Control Members  
 From: Mary Tomlinson, Pesticides Registrar/Water Quality Specialist  
 RE: EPA Special Local Need (SLN) [FIFRA, Section 24(c)] application to approve the use of Omega 500F Agricultural Fungicide, EPA Reg. No. 71512-1, as an in-furrow, banded spray at potato planting to control powdery mildew scab

State Supplemental Special Local Need (SLN) [FIFRA, Section 24(c)] application to approve the Omega 500F Fungicide, EPA Reg. No. 71512-1-100, as an in-furrow, banded spray at potato planting to control powdery mildew scab

Date: May 4, 2016

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

Powdery scab, caused by *Spongospora subterranean* f. sp. *Subterranean*, infects tubers, roots, and stolons causing lesions and pustules. The fungus also can transmit the potato mop top virus that causes darkening of the processed potato. Infected crops are largely unsaleable. Use of Omega 500F Fungicide will be limited by the few susceptible potato varieties and presence of specific environmental growing conditions required by the pathogen. Use is not expected to exceed the current tolerance of 0.02 ppm in potatoes.

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. ISK Biosciences Corporation approved the supplemental SLN request by Syngenta Crop Protection, LLC for the use of Omega 500F Fungicide as an in-furrow, banded spray at potato planting to control powdery mildew scab.

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

- FIFRA, Section 24(c) application
- Letter of request from ISK Biosciences Corporation
- Letter of support from Syngenta Crop Protection, LLC
- Letters of request from Steve Johnson, Crops Specialist, Maine Cooperative Extension to Syngenta

**HENRY JENNINGS, DIRECTOR**  
 90 BLOSSOM LANE, DEERING BUILDING



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

- Letter of support LaBrie Farms
- Omega 500F Agricultural Fungicide Potato Trials Summary
- Omega 500F Agricultural Fungicide draft Maine SLN label (ISK Biosciences Corp.)
- Omega 500F Agricultural Fungicide draft Maine SLN label (Syngenta Crop Protection, LLC)
- Omega 500F Agricultural Fungicide Section 3 label
- Omega 500F Agricultural Fungicide Section 3 label
- Omega 500F Fungicide SDS

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



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  
Date Registration Issued

1. Name and Address of Applicant for Registration ISK Biosciences Corporation 7470 Auburn Road Suite A Concord, Ohio 44057	2. Product is (Check one)	
	<input checked="" type="checkbox"/> EPA-Registered	EPA Registration Number 71512-1
	<input type="checkbox"/> New (not EPA-registered) Attach EPA Form 8570-4, Confidential Statement of Formula for new products.	EPA Company Number
3. Active Ingredient(s) in Product Fluzinam		

4. Product Name Omega 500F	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. Tolerance issued, 40 CFR Part 180.574
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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. <input type="checkbox"/> b. To amend EPA registrations for one or more of the following purposes: <input checked="" type="checkbox"/> (1) To permit use on additional crops or animals. <input type="checkbox"/> (2) To permit use at additional sites. <input checked="" type="checkbox"/> (3) To permit use against additional pests. <input checked="" type="checkbox"/> (4) To permit use of additional application techniques or equipment. <input checked="" type="checkbox"/> (5) To permit use at different application rates. <input type="checkbox"/> (6) Other (specify below)	7. Nature of Special Local Need (check one) <input type="checkbox"/> There is no pesticide product registered by EPA for such use. <input checked="" type="checkbox"/> 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. <input type="checkbox"/> An 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? <input type="checkbox"/> Yes (discuss in Item 13 below) <input checked="" type="checkbox"/> No

10. Has FIFRA section 24(c) registration for this use of the product ever, by another State, been (check appropriate box(es), if known): <input type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Revoked If any of the above are checked, list States in Item 13 below. <input type="checkbox"/> No FIFRA section 24(c) Action	9. Has an EPA Registration or Experimental Use Permit for this chemical ever been (check applicable box(es), if known): <input type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Cancelled <input type="checkbox"/> Suspended <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Experimental Use Permit <input type="checkbox"/> No Previous Permit 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." Provide a list of Federally protected endangered/threatened species which occur in the areas of proposed use.

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 To: July
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Signature of Applicant or Authorized Representative <i>Michael A. Peplausch</i>	13. Comments (attach additional sheet, if needed) This use would allow Omega 500F to be applied as an in-furrow banded spray at potato planting to control Powdery Scab at the rate of 3 pt/A, which is not expected to exceed the current tolerance of 0.02 ppm in potatoes. This use has been accepted in the states of CO (CO-070003), ID (ID-090012), MN (MN-100002) and ND (ND-100002) and is being pursued in the states of ME and WI.
Title Manager, Product Registrations	
Telephone Number 440-357-4653	
Date 4-4-2016	

**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 Maine Board of Pesticides Control 28 State House Station Augusta, ME 04333	Comments (by State Agency Only) Expires December 31, 2021	Received by EPA
Title Pesticides Registrar/Water Quality Specialist		
Telephone Number 207.287.7544		
Date 5-13-2016		



April 4, 2016

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

Dear Ms. Tomlinson,

**Special Local Need Application – Omega 500F – Powdery Scab on Potatoes**

Enclosed please find ISK Biosciences Corporation's (ISKBC) application for a FIFRA Section 24(c) Special Local Need Registration for the use of Omega 500F (EPA Reg. No. 71512-1) to control powdery scab disease on potatoes, along with our draft supplemental label for this use. ISKBC does not sell our products directly in the USA. Syngenta Crop Protection, Inc., has the distribution rights in the USA to sell under their distributor label, Omega 500F Fungicide, (EPA Reg. No. 71512-1-100). Thus, no product with the ISKBC label will show up in the market place. Syngenta currently has their Omega 500F distributor label registered in Maine and will have supplied a 24(c) label as well. However, it is our understanding that we need to register this SLN as the basic registrant in ME to obtain this SLN from EPA.

Syngenta has provided a summary document on efficacy. In addition, a letter of support from Dr. Steven Johnson, The University of Maine, is also attached. Fluazinam, the active ingredient in Omega 500F has been shown to be effective in controlling powdery scab on potatoes in these data. The approved federal tolerance for fluazinam in potatoes is 0.02 ppm. The States of Colorado, Idaho, Minnesota and North Dakota have previously approved 24(c) labels for this same use. The State of Wisconsin has also approved it in the past and we are pursuing renewal of that registration.

The proposed use on potatoes for control of Powdery Scab is 1.5 to 3.0 pints per acre at planting, as an in-furrow treatment. Thus, the timing and rate are different from our current Section 3 label, but within the total amount of fluazinam allowed per season. The Section 3 label allows foliar applications at the rate of 5.5 to 8 fl. oz. per acre per application, every 7 to 10 days, with the total seasonal limit of 3.5 pints (1.82 lbs a.i.) per acre per growing season. The PHI on potatoes is 14 days. If 3 pints (1.56 lbs a.i.) are used for this disease, one application at 8 oz or less could be applied later in the season for late blight or white mold control and still be under the total seasonal limit.

**Residue Discussion:**

No residues were detected above the LOQ of 0.01 ppm in any of our residue trials (14 sites) that included foliar application rates up to 0.45 lbs a.i. per acre per application and included up to a total season amount of 2.05 lbs a.i. per acre per season, with 8 to 18 day PHIs.

**ISK Biosciences Corporation**

7470 Auburn Road, Suite A, Concord, Ohio 44077, U.S.A.

tel: 440/357-4640 • fax: 440/357-4661

April 4, 2016  
Ms. Mary E. Tomlinson  
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In addition, no residues were detected in any treated or untreated potatoes above the LOQ of 0.01 PPM in our processing study in potatoes that used the following treatments:

Treatment #1 - 3 applications as 0.46 lb a.i./A, 2.31 lb a.i./A, 2.32 lb a.i./A, for a total of 5.1 lbs a.i./A, PHI=14 days

Treatment #2 - 9 applications as 0.19 lb a.i./A (first 5 applications), 0.93 lb a.i./A (last 4 applications), for a total of 4.8 lbs a.i./A, PHI=14 days

Please note that the last application rate used in treatment #1 in the processing study (2.32 lb a.i./A) was greater than the proposed in-furrow rate of 3 pints (1.56 lbs a.i.) with no detectable residues.

Thus from a residue standpoint, this proposed use can be supported with the current residue data and the current tolerance of 0.02 PPM.

Our confined crop rotational study, using two separately labeled fluazinam (14C-phenyl and 14C-pyridyl) moieties, demonstrated that there were no residues of fluazinam or metabolites with the intact moiety taken up by rotated crops after two applications of fluazinam at 1 pound a.i./application with a four week interval between applications. Fluazinam was completely degraded in the soil and some 14C was reincorporated into natural products such as starch in barley grain.

Our field soil dissipation studies were conducted at a seasonal total application rate of 1.8 pounds a.i./A from either four applications at 0.45 or two applications at 0.9 lb a.i./A. The seasonal total from these studies would cover the 3 pint rate for Omega 500F (1.56 lbs a.i./A).

Should you require any further information, please feel free to contact me by phone at (440) 357-4653, by email at [peplowskim@iskbc.com](mailto:peplowskim@iskbc.com), or by fax at (440) 357-4661.

Best regards,

ISK BIOSCIENCES CORPORATION



Michael A. Peplowski  
Manager, Product Registrations

Patricia (Pat) Dinnen  
Regulatory Manager  
State Registration/State  
Affairs

Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
www.syngenta.com

Tel. 336 632 2494  
Fax: 336 632 2884  
pat.dinnen@syngenta.com



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: Omega® 500F Agricultural Fungicide, EPA Reg. No. 71512-1  
Special Local Need Application – Powdery Scab on Potatoes

Dear Ms. Tomlinson:

Syngenta Crop Protection, LLC supports the SLN application made by ISK Biosciences Corporation as the primary registrant for Omega 500F Agricultural Fungicide for powdery scab on potatoes. Omega 500F Agricultural Fungicide is registered in Maine by Syngenta Crop Protection, LLC under a supplemental distributor registration (EPA Reg. No. 71512-1-100) from ISK Biosciences Corporation.

Enclosed in support of this application are:

- Federal Label for Omega 500F Agricultural Fungicide
- Omega 500F Agricultural Fungicide SDS

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

Sincerely,

A handwritten signature in black ink that reads "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](mailto:Mary.E.Tomlinson@maine.gov))  
Pesticide Registrar  
Maine Board of Pesticides Control / 28 SHS /  
Augusta, ME 04333

Dear Mary:

I wrote a letter (January 13, 2015, attached separately) supporting a 24c SLN label in Maine for Omega 500F® in furrow at the rate of 1.5 to 3.0 pints per acre. This would be in addition to the foliar label, which presently has a section 3 registration. The need existed at that time and still does.

I was told that the reason the 24c was not applied for in 2015 was that the owner of the active ingredient of Omega (ISK Biosciences) would not permit Syngenta, a co-registrant of the active ingredient, to pursue this registration. In the past year, relations between the companies have changed and ISK Biosciences is now permitting Syngenta to pursue this registration.

The issue identified in my 2015 letter still exists and is worsening. One farming operation I spoke with identified a loss of nearly \$750,000 in 2015, and losses have continued into the 2016 storage season. I have verified the extent of the loss with a second party. The processing company would not accept the potatoes as the chips had defects owing to the disease. Tuber lesions cause accumulation of reducing sugars at the site of the infection resulting in discoloration of the margins. This discoloration moves into the tuber flesh and appears on the processed product. One grower left 150 acres unharvested as they were unmarketable owing to Powdery Scab. The variety most susceptible has gone from 0 acres to perhaps a third of the Maine contracted chip acreage in four years. It is a long-term storage potato variety ideally suited to long-term storage markets served by Maine potato growers. Successful production of this long-term storage potato is paramount for continuing the success of the potato chip production in Maine.

<https://extension.umaine.edu/potatoes/>

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Cooperative Extension provides equal opportunities in programs and employment.  
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*Potato Program*

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

An additional issue has arisen around Powdery Scab. The fungus, *Spongospora subterranea* f. sp. *subterranean*, carries the PMTV pathogen. Frequently the fungus infects potatoes with the virus (<https://extension.umaine.edu/publications/2437e/>). Spraing can result in the flesh of the tuber as a result. Of greater concern is the physiological disruption of the potato tuber because of latent virus infection. The defects cause severe darkening of the processed product and are unacceptable to most markets, as is seen below.



This has been on the increase over the past two years. A representative from the local processor stated that there has been a three-fold increase in the past three years of their recorded internal defects from the symptoms shown. I spoke with a grower about his losses from this issue. He was facing a \$200,000 loss without the efforts of two processors to accommodate his potatoes the best they could. His direct monetary loss end up being more than 10 percent of this projected number. The processor confirmed this situation. According to the processor, there was in the range of \$150,000 of direct grower losses in 2015 from this disease. Losses to the processor were multiples of the losses suffered by the growers.

<https://extension.umaine.edu/potatoes/>



*Potato Program*

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

A real concern to the processor is the loss of premium markets. This disease has effectively eliminated many of their products from premium markets. Consequently, they pay growers less their potatoes. It is not profitable for the processing plant or potato growers to process or grow subpar potatoes. In fact, the contract and the markets are set on making premium grade, not a low end or cull market.

Both diseases, Powdery Scab and Potato Mop Top Virus, have dramatically affected recent potato crops in Maine. The requested product, Omega 500F®, is not a cure all is not likely to be used in situations, but it can provide reduction in the amount of disease and subsequent losses. Please feel free to contact me if have questions or require further information.

Sincerely,

A handwritten signature in black ink that reads 'Steven B. Johnson'. The signature is written in a cursive style and is underlined.

Steven B. Johnson, Ph.D.  
Crops Specialist

<https://extension.umaine.edu/potatoes/>

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*Potato Program*

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

January 13, 2015

Kiran Shetty (kiran.shetty@syngenta.com)  
Seed Treatment Support Representative  
Syngenta Crop Protection  
35 Ross Road  
Durham, NH 0384-4221

Dear Kiran:

I am requesting Syngenta to submit a 24c SLN label request to the State of Maine for Omega 500F® in furrow at the rate of 1.5 to 3.0 pints per acre. This would be in addition to the foliar label which presently has a section 3 registration.

Powdery Scab is caused by the pathogen *Spongospora subterranea* f. sp. *subterranea*. The pathogen has a resistant resting stage that enables it to survive in soil for many years. Powdery Scab was first found in Germany in 1841, and then found throughout Europe by 1855. It was found in South America in 1891, in New Brunswick, Canada in 1913 and later that year in Maine. Maine potatoes were quarantined as a result of the presence of the disease. Studies conducted established that the disease only occurs under a narrow range of environmental conditions. This, along with the discovery of the disease in most potato-producing areas of the United States, led officials to lift the quarantine.

The appearance of the disease is dependent on favorable conditions and the presence of inoculum. The pathogen will flourish in soil temperatures less than 68 degrees Fahrenheit and prefers poorly drained soil. The optimal infection conditions are soil temperatures of 55 to 65 degrees F with soil moisture over 15 percent. The pathogen can be infectious across a pH range from 4.7 to 7.6. The susceptible stage of potato growth is one week before tuber set. The infection conditions are warm soil conditions (over 50 degrees Fahrenheit) with high moisture (over 15 percent). If these environmental and host conditions are met and the pathogen is present, the disease can occur. High soil moisture early in the season with a gradual drying out is thought to encourage the development of the disease. Many of the northern tier states (Idaho, Wisconsin, and Maine) have these conditions.



### *Potato Program*

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

Symptoms of this disease are confined to below-ground parts of the potato plant. Infected roots and stolons may have galls. The pathogen invades the tuber through lenticels, wounds and sometimes, the eyes. The symptoms loosely resemble those of scab. However, the lesions are usually smaller and are often quite circular. The lesions progress from brown to olive-brown spots, which are raised and blister-like, to dark brown roundish, open, raised pustules. The pustules are filled with a brown, powdery mass of spores and broken-down tissue. These spores can cause the disease. Infected tubers are predisposed to other maladies during storage such as *Fusarium* dry rot and late blight. This pathogen can transmit potato mop-top virus.

Not every potato needs protection offered by Omega. Russet Burbank roots are affected but tubers rarely have lesions. Most susceptible are thin-skinned potato varieties such as Red Norland and some chipping varieties, most notably FL2137. So with limited susceptible varieties and specific infection conditions, this is truly a SLN or Special Local Needs application. The need for this seed treatment is real. In fact, one Maine grower of FL2137 lost over \$500,000 last year alone to powdery scab. This loss occurred on land that was well-rotated in an attempt to reduce soil-borne pathogens. Crop insurance covers the crop lost measured by reduced harvest, not potatoes unsaleable as determined by the end market. This grower harvested an average to large crop, but was unable to sell it to the intended market and it went into dehydrated potato flakes for less than 10% of the intended market price.

I expect that less than 15 percent of the Maine potato acreage would be under consideration for Omega, with the number closer to 5 percent of the acreage. Variety susceptibility plays into that as well as cost. For example, a typical foliar fungicide application (BravoZn) is less than \$7.50 per acre where an Omega application is about \$75 to \$150 per acre. The 2.5 gallon jug covers about the same 13 acres but costs \$75 for BravoZn and over \$1000 for Omega. The \$75 to \$150 per acre added cost to potato production will limit the use of the material.

There is no good control for this disease. Seed treatments may help reduce the spread of the pathogen from infected seed. Data, while not extensive, does show reduction of 60% of powdery scab incidence with the application of Omega across several trials. These data



*Potato Program*

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

lead to the request and granting of a SLN in Idaho (ID-090012) and Wisconsin (WI-110002) for 1.5 to 3 pints per acre of Omega applied in furrow over the seed piece.

Again, I am requesting Syngenta to submit a 24c SLN label request to the State of Maine for Omega 500F® in furrow at the rate of 1.5 to 3.0 pints per acre. This would be in addition to the foliar label which presently has a section 3 registration.

The Pesticide Registrar requires a letter requesting a 24c registration and a completed application (8570-25). The contact information is:

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

cc: MBPC

Dear Mary Tomlinson

We at LaBrie Farms would like to encourage the Maine Board of Pesticide Control to grant the 24(C) special local need label for Omega fungicide's in furrow application at planting on potatoes for the 2016 growing season.

This label would provide us with an additional tool to help us with control of powdery scab in potatoes. In the past two years we have experienced fry color issues on processing potatoes destined for McCain Foods that we attribute to high levels of powdery scab which vectors other viruses. These issues have caused us financial hardship for the past two growing seasons.

Powdery scab can be detrimental for all sectors of the Maine Potato Industry from color issues in chip and processing potatoes, to external appearance issues in fresh market potatoes as well. Maine potato growers would be at a disadvantage to the other growing regions in the country that currently have already received the Special Local Need Label if we do not receive this 24(C).

For these reasons we would urge the MBPC to approve the 24(C) in furrow application of Omega Fungicide for use in Maine for the 2016 growing season.

Thank you for your time and support of our industry.

Keith LaBrie

Vice-Pres LaBrie Farms LLC.



# OMEGA<sup>®</sup> 500F

## AGRICULTURAL FUNGICIDE

**24(c) SPECIAL LOCAL NEEDS LABEL FOR SUPPRESSION OF POWDERY SCAB ON POTATOES**

**FOR DISTRIBUTION AND USE ONLY IN THE STATE OF MAINE**

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH IT LABELING**

For Agricultural Use Only  
 EPA SLN No. ME-\_\_\_\_\_  
 EPA Reg. No. 71512-1

EMERGENCY CALLS: 888-484-7546

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

CROP	RATE OF APPLICATION	PEST
Potatoes	In-furrow – 1.5 to 3.0 pints per Acre	Powdery Scab ( <i>Spongospora subterranea</i> )

**DIRECTIONS FOR USE**

**Application Instructions (Planting time treatment):** Apply Omega 500F in at least 5 to 10 gallons of water per acre. Use Omega 500F at the 1.5 pint per acre rate on fields with a history of low levels of powdery scab or with low numbers of spore balls present in the soil. Apply the 3.0 pints per acre rate to fields with a history of moderate to heavy disease pressure or with moderate to high numbers of spore balls present in the soil.

The product should be applied in-furrow, over the seed piece, immediately prior to covering over the seed piece with soil. The Omega 500F may be applied with a single nozzle placed directly above the seed piece, covering a band of soil approximately 8 inches in width. Alternately, two nozzles may be use. The first nozzle should be placed directly over the seed piece with the 2nd nozzle directed behind to apply Omega 500F to the soil that will be used to cover the seed piece.

Omega 500F will not provide complete control of this disease as the level of control varies according to the spore load in the soil and the cultivar being grown. Omega 500F, will, however, be effective against the pathogen when used as part of a comprehensive disease management program. For best results, apply Omega 500F using methods that maximum coverage of the rhizosphere in immediate proximity to the seed piece.

**Resistance Management:**

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. Omega 500F 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 mode of fungicidal action. Omega 500F, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Omega 500F in programs that seek to minimize the occurrence of disease resistance to other fungicides. No known resistance has developed to Omega 500F and thus it is an excellent partner for those products which specify the use of a protectant or other fungicide which as a different mode of action.

**RESTRICTIONS:**

- **DO NOT** apply more than 3.5 pints per acre per year.
- **DO NOT** apply within 14 days of harvest.
- Areas treated with Omega 500F may be replanted with crops on the federal label as soon as practical after the last application. All other crops not registered for this product can be planted 30 days after the last application.

**ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE EPA REGISTERED OMEGA 500F LABEL (EPA Reg. No. 71512-1) MUST BE FOLLOWED. THIS LABEL MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.**

24(c) Registrant: ISK Biosciences Corporation  
 7470 Auburn Rd., Suite A  
 Concord, Ohio 44057

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 is 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 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.



**Section 24(c) Special Local Need Label**

**FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE**

**Omega® 500F Agricultural Fungicide  
For Suppression of Powdery Mildew Scab on Potatoes**

**EPA Reg. No. 71512-1-100  
EPA SLN No. ME- xxxxxx**

**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.
- Failure to follow the directions for use and precautions on this label may result in poor pest control, crop injury, or illegal residues.

<b>Crop</b>	<b>Pest</b>	<b>Rate of Application</b>
Potatoes	Powdery Scab ( <i>Spongospora subterranea</i> )	In-furrow – 1.5 to 3.0 pints per Acre

**APPLICATION INSTRUCTIONS (PLANTING TIME TREATMENT)**

Apply Omega 500F in at least 5 to 10 gallons of water per acre. Use Omega 500F at the 1.5 pint per acre rate on fields with a history of low levels of powdery scab or with low numbers of spore balls present in the soil. Apply the 3.0 pints per acre rate to fields with a history of moderate to heavy disease pressure or with moderate to high numbers of spore balls present in the soil.

The product should be applied in-furrow, over the seed piece, immediately prior to covering over the seed piece with soil. The Omega 500F may be applied with a single nozzle placed directly above the seed piece, covering a band of soil approximately 8 inches in width. Alternately, two

nozzles may be used. The first nozzle should be placed directly over the seed piece with the 2nd nozzle directed behind to apply Omega 500F to the soil that will be used to cover the seed piece.

Omega 500F will not provide complete control of this disease as the level of control varies according to the spore load in the soil and the cultivar being grown. Omega 500F, will, however, be effective against the pathogen when used as part of a comprehensive disease management program. For best results, apply Omega 500F using methods that maximum coverage of the rhizosphere in immediate proximity to the seed piece.

## **RESISTANCE MANAGEMENT**

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. Omega 500F 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 mode of fungicidal action. Omega 500F, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Omega 500F in programs that seek to minimize the occurrence of disease resistance to other fungicides. No known resistance has developed to Omega 500F and thus it is an excellent partner for those products which specify the use of a protectant or other fungicide which has a different mode of action.

## **RESTRICTIONS**

- **DO NOT** apply more than 3.5 pints per acre during each growing season.
- **DO NOT** apply within 14 days of harvest.
- Areas treated with Omega 500F may be replanted with crops on the federal label as soon as practical after the last application. All other crops not registered for this product can be planted 30 days after the last application.

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Omega® 500F trademark Ishihara Sangyo Kaisha, LTD  
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24(c) Registrant:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300

Label Code:

## Syngenta Trial Summary Sheet

Crop: Potato

Pest(s): Powdery Scab (*Spongospora subterranea*)

Product(s): Omega and Maxim

Trial Number: USNMF9262007

Protocol Number: None

### Major Points of the trial:

- Information is from Dr. Rob Davidson, Colorado State University.
- Trials were conducted in the San Luis Valley of Colorado
- This is part of a multi-year study (2002 – 2007)
- Rates tested have been 1.5 to 3 pts/A
- Major objective has been comparison of one versus two nozzles. Overall, the use of two nozzles is usually numerically better than one nozzle. The first nozzle is the typical location just after the seed piece drop. The second nozzle is a little aft and directed back toward the mixing area of the closing discs. The idea is to increase the distribution in the potato rhizosphere because we are using a product with very little soil mobility. The mix should be similar in the two nozzles (2006 we had a 45/55 split and in 2007 a 50/50 split).
- Interestingly, the treatment with Maxim and Omega was better than the treatment of just Omega. Maxim alone was equivalent to the untreated check.
- Colorado had a 24c for use of Omega in-furrow for powdery scab suppression based on results from previous work.
- Early indications are that Omega was successful as part of a full management approach in suppressing powdery scab. Omega should not be seen as a silver bullet without other management practices.

Data Table from Dr. Davidson with 2006 and 2007 data.



H:\Powdery Scab  
Review 2007\Omega

Written summary from Dr. Davison for 2007



H:\Powdery Scab  
Review 2007\Execsu

Powdery Scab graphs of 2007 data. Converted to pdf to save space.



H:\Powdery Scab  
Review 2007\Powder

Powdery scab data from 2002 – 2006 for reference.



H:\Powdery Scab  
Review 2007\Potato

Powdery scab sales sheet submitted in the spring but never approved (lost in the system).



H:\Powdery Scab  
Review 2007\Powder

PULL HERE TO OPEN ►

GROUP 29 FUNGICIDE

# Omega<sup>®</sup>500F

syngenta<sup>®</sup>

## Agricultural Fungicide

*Active Ingredient:*

Fluazinam: 3-chloro-*N*-[3-chloro-2,6-dinitro-4-trifluoromethyl  
phenyl]-5-trifluoromethyl-2-pyridinamine (CA) . . . . . 40.0%

*Other Ingredients:* . . . . . 60.0%

*Total:* . . . . . 100.0%

Contains 4.17 pounds fluazinam per gallon (500 grams per liter).

**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.

Read entire label carefully and use only as directed.

**EPA Reg. No. 71512-1-100 EPA Est. 1022-TN-001**

**Product of Korea Formulated in the USA**

**SCP 71512-1A-L1G 0914  
4046526**

**2.5 gallons**  
Net Contents

TM

<b>FIRST AID</b>	
<b>If on skin</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
Probable mucosal damage may contraindicate the use of gastric lavage.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b>	
For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### **WARNING/AVISO**

Causes skin irritation. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if inhaled or swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before use. Do not take internally.

*continued...*

## PRECAUTIONARY STATEMENTS *(continued)*

### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

#### Applicators, flaggers, and other handlers must wear:

- Coveralls worn over long-sleeved shirt and long pants
- Socks and chemical resistant footwear
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Protective eyewear

When mixing and loading, or when cleaning equipment, also wear a chemical resistant apron.

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. Do not allow contact of contaminated clothing with unprotected skin.

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.

### Engineering Control Statements

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.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down. Do not allow contact between contaminated sprayer parts and unprotected skin. Ensure sprayer is washed down daily.

### User Safety Recommendations

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove contaminated clothing and wash clothing before reuse.

### Environmental Hazards

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

## 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.

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. 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.** Refer to use directions for each crop to see additional REI restrictions for high exposure activities (i.e., hand weeding) greater than 12 hours.

*continued...*

### **AGRICULTURAL USE REQUIREMENTS (continued)**

PPE required for early entry to the 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 worn over long-sleeved shirt and long pants
- Socks and chemical-resistant footwear
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear

Omega 500F may cause allergic skin reactions in a small number of sensitive individuals. To prevent the potential for an allergic reaction: when entering treated crops, wear protective clothing (coveralls, socks and shoes) to avoid contact of unprotected skin with foliage; wash all protective clothing (coveralls) regularly, preferable daily; remove PPE immediately after leaving treated area, wash thoroughly, as soon as possible, and change into clean clothing; keep and wash PPE separately from other laundry; when entering treated crops, avoid contact of unprotected skin with treated foliage. People who have been sensitized to Omega 500F should not use or have further contact with the product.

#### **FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.**

Omega 500F may be applied with all types of spray equipment normally used for ground applications. Aerial application or application through sprinkler irrigation systems is not allowed unless specific directions are given for a crop. See the crop table, and application and calibration instructions below.

Do not cultivate within 25 feet of permanent water bodies (lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries) so as to allow growth of a vegetative filter strip.

Do not apply Omega 500F within 25 feet of permanent water bodies (lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries). In the State of New York, do not apply within 100 feet of surface water. Do not apply Omega 500F by aerial equipment within 150 feet of marine/estuarine areas. Aerial application is prohibited in the State of New York.

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 is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

#### **Mixing and Spraying**

Omega 500F can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

Apply Omega 500F in sufficient water to obtain adequate coverage of the foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume will usually range from 20 to 100 gallons per acre for dilute sprays, and 5 to 10 gallons per acre for concentrate ground and aerial sprays. For aerial applications, apply Omega 500F in a minimum of 5 gallons of water per acre.

Dosage rates on this label indicate pints of Omega 500F per acre, unless otherwise stated. Under conditions that favor disease development, the high rate specified and the shortest application interval should be used.

**NOTE:** Slowly invert container several times to assure uniform mixture.

The required amount of Omega 500F should be added slowly into the spray tank during filling. With concentrate sprays, premix the required amount of Omega 500F 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.

DO NOT allow spray mixture to stand overnight or for prolonged periods. Prepare only the amount of spray required for immediate use. Spraying equipment should be thoroughly cleaned immediately after the application.

#### **Tank Mix Compatibility**

Omega 500F is physically compatible (no nozzle or screen blockage) with many products recommended for control of diseases and insects on vegetable crops. Read and follow all manufacturers' label recommendations for the tank mix companion product. It is the applicator's responsibility to ensure that the companion product is EPA approved for use on the intended crop. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Omega 500F is generally compatible with other insecticides, fungicides, fertilizers and micronutrient products provided sufficient free water is available for dispersion of all the tank mix products. However, the physical compatibility of Omega 500F with tank mix partners should be evaluated before use. A jar test should be conducted with intended tank-mix pesticides prior to preparation of large volumes. Use the following procedure: 1) Pour the recommended proportions of the products into a suitable container of water, 2) Mix thoroughly and 3) Allow to stand 5 minutes. If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. Any physical incompatibility in the jar test indicates that Omega 500F should not be used in the tank-mix.

#### **Rotational Crop (Plantback) Restrictions**

Areas treated with Omega 500F may be replanted with crops on this label immediately after the last treatment. All other crops can be planted 30 days after the last application.

#### **Field and Row Crops**

Apply Omega 500F in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume usually will range from 20 to 60 gallons per acre (200 to 600 liters per hectare) for dilute sprays and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays. Application through sprinkler irrigation systems is not allowed unless specific directions are given for a crop. See application and calibration instruction below.

#### **Integrated Pest Management**

Omega 500F is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. Omega 500F is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of disease resistant crop varieties, cultural practices, biological control agents, pest scouting and disease forecasting systems aimed at preventing economic pest damage. Practices known to reduce disease development should be followed. Consult your State Cooperative Extension Service or local agricultural authorities for additional IPM strategies established in your area. Omega 500F may be used in State Agricultural Extension advisory (disease forecasting) programs that recommend application timing based on environmental factors which favor disease development.

#### **Resistance Management**

**GROUP 29 FUNGICIDE**

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. Omega 500F is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Omega 500F has a multi-site mode of action that disrupts the energy production in the fungus. It is listed in FRAC code 29, as an uncoupler of oxidative phosphorylation. Some other fungicides, which are at risk from disease resistance, exhibit a single-site mode of fungicidal action. Omega 500F, with its 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 Omega 500F in programs that seek to minimize the occurrence of disease resistance to other fungicides. FRAC lists fluazinam as low risk for resistance and thus it is an excellent partner for those products that specify the use of a protectant or other fungicide that has a different mode of action.

## **Application and Calibration Techniques for Sprinkler Irrigation**

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set or 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 Omega 500F 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 Omega 500F 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 that 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.

Omega 500F 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 this product for acreage to be covered into the 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 this product has been cleared from the 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 30 to 45 minute period. Mix desired amount of Omega 500F for acreage to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the quantity of water used during calibration.

Agitation is recommended. Omega 500F 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 this product has been cleared from last sprinkler head.

## DIRECTIONS FOR USE

Crop	Diseases	Rate per Acre	Instructions
<b>Apples</b>	<b>Diseases Controlled</b>	10 to 13.8 fl oz	<p>Omega 500F should be applied as a broadcast spray on a preventative basis. For scab control begin applications at green tip or when conditions are favorable for primary scab development. Repeat applications at 7- to 10-day intervals. The high rate and shortest intervals should be used for more susceptible varieties and heavy disease pressure.</p> <p>For control of flyspeck and sooty blotch begin applications before disease occurs and continue on a 7- to 10-day schedule. Use the higher rate and shorter interval when disease pressure is high.</p> <p>For control of bitter rot, black rot, Brooks spot, cedar apple rust, two-spotted spider mite and European red mite begin applications before disease occurs or mites are present, continue on a 7- to 10-day schedule and shorten application intervals when disease pressure or mite infestations are high. When Omega 500F is used as a cover spray, initiate the applications at petal fall and continue applications on a 7- to 10-day schedule to within 28 days of harvest.</p> <p>For diseases and mites that are only suppressed use the high rate of 13.8 fl oz and make applications on a 7-day interval.</p> <p>Omega 500F applied as cover sprays on a 7- to 10-day schedule will provide control/suppression of mites, however if applications of Omega 500F are discontinued then the application of a specific miticide may be required.</p> <p>Applications are based on a tree size requiring a dilute spray of 200 gallons per acre.</p> <p><b>Restrictions</b> DO NOT make more than 10 applications or apply more than 8.625 pints of Omega 500F per acre per growing season. DO NOT apply within 28 days of harvest. Restricted Entry Interval (REI) = 12 hours.</p>
	Apple Scab ( <i>Venturia inaequalis</i> )		
	Flyspeck ( <i>Zygothia jamaicensis</i> ) Sooty blotch (disease complex)	10 to 13.8 fl oz	
	Bitter rot ( <i>Colletotrichum cingulata</i> ) Black rot ( <i>Botryosphaeria obtusa</i> ) Brooks spot ( <i>Mycosphaerella pomi</i> ) Cedar apple rust ( <i>Gymnosporangium juniperi-virginianae</i> )	13.8 fl oz	
	<b>Diseases Suppressed</b> Alternaria blotch ( <i>Alternaria mali</i> ) White rot ( <i>Botryosphaeria dothidea</i> ) Quince rust ( <i>Gymnosporangium clavipes</i> )	13.8 fl oz	
	<b>Mites Controlled</b> Two-spotted spider mite ( <i>Tetranychus urticae</i> ) European red mite ( <i>Panonychus ulmi</i> )	13.8 fl oz	
	<b>Mites Suppressed</b> Apple rust mite ( <i>Aculus schlectendali</i> )	13.8 fl oz	

Crop	Diseases	Rate per Acre	Instructions
<b>Brassica (Cole) Leafy Vegetables (Crop Group 5), plus Turnip Greens (in Crop Group 2)</b>	Club root <i>(Plasmiodiophora brassicae)</i>	<b>Transplant:</b> 6.45 fl oz/ 100 gallons  <b>Soil Incorporation:</b> 2.6 pints	<b>Application Directions:</b> <b>Transplant Soil Drench:</b> Immediately after transplanting, make a single application at the rate listed here (6.45 fl oz/100 gal) using 3.4 fluid ounces of this transplant solution per plant.  <b>Soil Incorporation:</b> Alternatively, if desired and for soil with low infiltration rates, apply 2.6 pints per acre in a minimum bandwidth of 9 inches along the planting row and incorporate to a soil depth of 6 to 8 inches with a precision incorporator in the same operation. Apply in a water volume of at least 50 gallons per acre. Transplant the seedlings into the treated band. If planting into a bed, a broadcast application can be made prior to forming the bed.  <b>Note:</b> This product may delay the start of harvest by up to 8 days, cause some plant stunting, and shorten the harvest period, without adverse effects on the final yield.  <b>Restrictions:</b> DO NOT apply more than 3.85 pints per acre per growing season. DO NOT apply within 20 days of harvest on leafy greens such as mustard greens. DO NOT apply within 50 days of harvest on heading vegetables such as cabbage and broccoli. Turnip roots from turnip plants treated with Omega 500F must not be used for human or livestock consumption. Restricted Entry Interval, REI = 2 days, for workers conducting hand set irrigation activities and 12 hours for all other activities.
<b>Includes all members of Crop Group 5, Brassica (Cole) Leafy Vegetables:</b> broccoli, Chinese broccoli, broccoli raab (rapini), Brussels sprouts, cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage, cauliflower, cavalo broccolo, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, and rape greens.			
<b>Includes the following member of Crop Group 2, Leaves of Root and Tuber Vegetables:</b> turnip greens.			

Crop	Diseases	Rate per Acre	Instructions
<b>Bushberry (Crop Subgroup 13-07B)</b>	Twig blight and fruit rot ( <i>Phomopsis vaccinii</i> )  Anthracnose (Ripe rot) ( <i>Colletotrichum acutatum</i> ) ( <i>C. gloeosporioides</i> )  Botrytis fruit rot ( <i>Botrytis cinerea</i> )	1.25 pints	<p><b>Application Directions:</b> Applications for fruit rots should be made on a 7- to 10-day interval, corresponding roughly to applications at green tip, pink tip, early bloom, full bloom, blossom drop and small green fruit to some blue fruit. Use adequate water to provide coverage of foliage, flowers and fruit.</p> <p><b>Restrictions:</b> DO NOT use more than 7.5 pints per acre per growing season. DO NOT use an adjuvant in the spray mixture with Omega 500F on this crop. DO NOT apply within 30 days of harvest (30-day PHI). Restricted Entry Interval, REI = 12 hours.</p>
<p><b>Includes all members of the Crop Subgroup 13-07B, Bushberry:</b> aronia berry, blueberry (highbush and lowbush), Chilean guava, currant (buffalo, black, red, and native), elderberry, European barberry, gooseberry, highbush cranberry, edible honeysuckle, huckleberry, jostaberry, juneberry, lingonberry, salal, sea buckthorn, and cultivars, varieties, and/or hybrids of these.</p>			
<b>Carrot</b>	Southern Blight ( <i>Sclerotium rolfsii</i> )  Sclerotinia Rot ( <i>Sclerotinia sclerotiorum</i> )  Alternaria Blight ( <i>Alternaria dauci</i> )	1 pint	<p><b>Application Directions:</b> The initial application for control of southern blight and sclerotinia rot should be made approximately 45 days prior to harvest or earlier if disease appears. If required, a second application can be made 14 days after the initial application. Apply in 30 to 50 gallons of water per acre as a directed band spray over the crop.</p> <p>For control of alternaria blight initiate applications when disease conditions are favorable for disease development or when disease symptoms first appear. Repeat applications as needed at a 7-day interval.</p> <p><b>Restrictions:</b> DO NOT make more than 4 applications per crop cycle. DO NOT apply within 7 days of harvest (7-day PHI). Restricted Entry Interval (REI) = 12 hours. DO NOT apply more than 4 pints per growing season.</p>

Crop	Diseases	Rate per Acre	Instructions
<b>Cucurbit Vegetables, Melon Subgroup 9A</b>	Downy Mildew Alternaria Leaf Spot Gummy Stem Blight	0.75 to 1.5 pints	<p>Initiate applications when conditions are favorable for disease development or when disease symptoms first appear. Repeat applications on a 7- to 10-day schedule. Use sufficient water to provide coverage of foliage.</p> <p>Use the low rate and longest interval for preventative applications and when disease pressure is low. Increase the rate and decrease the interval as disease pressure increases. For high disease pressure use the 1.5 pint rate on a weekly interval.</p> <p>DO NOT apply more than 9 pints per acre per growing season.  DO NOT apply within 30 days of harvest (PHI = 30 days).  Restricted Entry Interval (REI) = 12 hours.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment on cantaloupe. See irrigation use directions elsewhere on the Omega 500F label.</p>
<p><b>Includes all members of the Cucurbit Vegetables, Melon Crop Subgroup 9A, such as:</b> Citron melon; Muskmelon, including hybrids and/or varieties of <i>Cucumis melo</i> (including true cantaloupe, cantaloupe, casaba, Santa Claus melon, Crenshaw melon, honeydew melon, honey balls, Persian melon, golden pershaw melon, mango melon, pineapple melon, snake melon); and watermelon, including hybrids and/or varieties of <i>Citrullus</i> spp.</p>			
<b>Fruiting Vegetable, Pepper/Eggplant Subgroup 810B</b>	Phytophthora blight ( <i>Phytophthora capsici</i> )	1.0 to 1.5 pints	<p>The initial application may be made as a soil drench at transplanting at 1.5 pints/A. Foliar applications should begin 7 days after transplant and continue on a 7- to 14-day schedule. For foliar applications use the low rate and longest interval for preventative applications and when disease pressure is low. For moderate disease pressure use the 1 pint rate on a weekly interval. For high disease pressure use the 1.5 pint rate on a weekly interval.</p> <p>DO NOT make more than 9 pints per acre per growing season.  DO NOT apply within 30 days of harvest (PHI = 30 days).  Restricted Entry Interval (REI) = 12 hours.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment on peppers. See irrigation use directions elsewhere on the Omega 500F label.</p>
<p><b>Includes all members of Fruiting Vegetable, Pepper/Eggplant Crop Subgroup 8-10B, such as:</b> African eggplant; bell pepper; eggplant; martynia; nonbell pepper; okra; pea eggplant; pepino; roselle; scarlet eggplant; cultivars, varieties, and/or hybrids of these.</p>			

Crop	Diseases	Rate per Acre	Instructions
Ginseng	Rhizoctonia root rot ( <i>Rhizoctonia solani</i> )  Alternaria blight ( <i>Alternaria panax</i> )  Botrytis blight ( <i>Botrytis cinerea</i> )  White mold ( <i>Sclerotinia</i> spp.)	1 to 1.5 pints	<b>Application Directions:</b> For control of rhizoctonia root rot use 1 pt/A beginning at transplant then continue on a 14-day interval. For control of alternaria blight, botrytis blight, and white mold, use 1 pt/A beginning when the disease first appears or when conditions are favorable for disease development. Repeat applications as needed on a 7- to 14-day interval. Make a uniform application of the fungicide in a minimum of 100 gallons of water per acre. Under conditions favorable for severe disease development, use the 1.5 pint rate.  <b>Restrictions:</b> DO NOT apply more than 6 pints per growing season. DO NOT apply within 30 days of harvest (30-day PHI). Restricted Entry Interval, REI = 12 hours.
Edible-podded Legume Vegetables, (Crop Subgroup 6A, Except Peas)  Succulent Bean, includes Lima Bean (Crop Subgroup 6B, Except Peas)  Dry Beans (Crop Subgroup 6C, Except Peas and Soybeans)	White mold ( <i>Sclerotinia sclerotiorum</i> )  Gray mold ( <i>Botrytis cinerea</i> )	0.5 to 0.85 pints	<b>Application Directions:</b> For control of white and gray molds, make the first application at 10-30% bloom (i.e. when 10-30% of the plants have at least one (1) open bloom). If needed, a second application may be applied 7 to 10 days later. Use adequate water to provide coverage of foliage and flowers. Under conditions favorable for severe disease development, use the 0.85 pint rate.  <b>Restrictions:</b> DO NOT use more than 1.75 pints per acre per growing season. DO NOT apply within 14 days of harvest for edible-podded and succulent beans (14-day PHI). DO NOT apply within 30 days of harvest for dry and lima beans (30-day PHI). Restricted Entry Interval, REI = 12 hours.  Omega 500F may be applied through sprinkler system irrigation equipment on beans. See irrigation use directions preceding this section.

**Edible-podded Legume Vegetables Subgroup 6A, except pea includes:** Bean *Phaseolus* spp. runner bean, snap bean, wax bean; Bean *Vigna* spp. asparagus bean, Chinese longbean, moth bean, yardlong bean, jackbean, sword bean.

**Succulent Shelled Pea and Bean Subgroup 6B, except pea includes:** Bean *Phaseolus* spp. lima bean (green), broad bean (succulent); Bean *Vigna* spp. blackeyed pea, cowpea, southern pea.

**Dried Shelled Pea and Bean (Except Soybean) Subgroup 6C, except pea includes dried cultivars of the following beans:** Bean *Lupinus* spp. grain lupine, sweet lupine, white lupine, white sweet lupine; Bean *Phaseolus* spp. field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean; Bean *Vigna* spp. adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, broad bean; chick pea, garbanzo bean; guar; lablab bean.

Crop	Diseases	Rate per Acre	Instructions
Lettuce, Head and Leaf	Sclerotinia Drop ( <i>Sclerotinia minor</i> , <i>Sclerotinia sclerotiorum</i> )	1 to 1.5 pints	<p><b>Application Directions:</b> Omega 500F should be applied at 1 to 1.5 pints per acre as either a foliar band or broadcast spray or as a soil drench application at thinning. Use at least 50 gallons of water per acre. Use the higher rate in fields with a history of moderate to severe disease incidence. Omega may be used with all types of lettuce, however, DO NOT apply after thinning as phytotoxicity may occur.</p> <p><b>Restrictions</b> DO NOT apply more than 1.5 pints per growing season. DO NOT use an adjuvant with Omega 500F on this crop. DO NOT apply within 30 days of harvest (30-day PHI). For use on lettuce only in the State of Arizona and in the Imperial Valley of California. Restricted Entry Interval, REI = 12 hours.</p>
Onion, Bulb (Crop Subgroup 3-07A)	Botrytis leaf blight ( <i>Botrytis squamosa</i> )  Botrytis neck rot ( <i>Botrytis allii</i> )  Downy mildew ( <i>Peronospora destructor</i> )  Purple blotch ( <i>Alternaria porri</i> )	1 pint	<p><b>Application Directions:</b> Initiate applications when conditions are favorable for disease development or when first disease symptoms appear. Repeat applications on a 7- to 10-day schedule. Use sufficient water to obtain adequate coverage but no less than 5 gallons per acre.</p> <p><b>Restrictions:</b> DO NOT make more than 6 applications per growing cycle. DO NOT use an adjuvant with Omega 500F on this crop. DO NOT apply within 7 days of harvest (7-day PHI). Restricted Entry Interval, REI = 24 hours for hand weeding activities and 12 hours for all other activities.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment on onions. See irrigation use directions preceding this section.</p>
<p><b>Includes all members of the Crop Subgroup 3-07A, Onion, Bulb, such as:</b> daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; and cultivars, varieties, and/or hybrids of these.</p>			

Crop	Diseases	Rate per Acre	Instructions
Peanuts	Sclerotinia blight ( <i>Sclerotinia minor</i> )	1 to 1.5 pints	<p><b>Application Directions:</b> Apply at 45-70 days after planting or when conditions become conducive to disease development, then make a second application approximately 3-4 weeks later. If disease conditions remain favorable, make a third application approximately 3-4 weeks after the second. If the high rate was used for the first two applications use the low rate for the third application.</p> <p><b>Restrictions:</b> DO NOT use more than 4 pints per acre during any single growing season. DO NOT apply within 30 days of threshing for harvest. DO NOT allow livestock to graze in treated areas. DO NOT feed hay or threshings from treated field to livestock. DO NOT apply by aerial application equipment. Restricted Entry Interval, REI = 12 hours.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment. Use 1 1/2 pints of product per acre in solid set, portable wheel move, center pivot, motorized lateral move or traveling gun sprinkler irrigation equipment. See irrigation use directions preceding this section.</p>

Crop	Diseases	Rate per Acre	Instructions
Potato	Late blight ( <i>Phytophthora infestans</i> )	5.5 fl oz	<p><b>Application Instructions:</b> For late blight and white mold control, begin applications when the plants are 6 to 8 inches tall or when conditions favor disease development. Repeat applications at intervals of 7 to 10 days. When white mold pressure is low to moderate, use 5 1/2 fluid ounces. When conditions favor moderate to high white mold pressure, increase the rate to 8 fluid ounces.</p> <p><b>Restrictions:</b> DO NOT apply more than 3.5 pints per acre during each growing season. DO NOT apply within 14 days of harvest. Restricted Entry Interval, REI = 12 hours.</p> <p>Omega 500F may be applied by aerial application (except in the State of New York) or through sprinkler system irrigation equipment on potatoes. See irrigation use directions preceding this section.</p>
	White mold ( <i>Sclerotinia sclerotiorum</i> )	5.5 to 8 fl oz	
Soybean	White Mold ( <i>Sclerotinia sclerotiorum</i> )	0.75 to 1.0 pints	<p><b>Application Instructions:</b> The first application of Omega 500F should be applied at R1 (early bloom) to R2 (full bloom) stage of development and, if needed, again 10- to 14-days later at early pod formation (R3). As a preventative spray or with conditions favoring low disease pressure use the low rate. For conditions favoring moderate to high disease development use the high rate.</p> <p><b>Restrictions</b> DO NOT apply more than 2 pints per acre per growing season. DO NOT allow livestock to graze treated areas. DO NOT feed hay from treated fields to livestock. DO NOT apply after growth stage R3, early pod formation. Restricted Entry Interval, REI = 12 hours.</p> <p>Omega 500F may be applied by aerial application to soybeans, except in the State of New York.</p>

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

### **Pesticide Storage**

Store in original container, in a secured, dry place separate from food and feed.

### **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 guidance.

### **Container Handling**

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 and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or 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, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Omega® 500F is a registered trademark of Ishihara Sangyo Kaisha, LTD.

The ALLIANCE FRAME   
the SYNGENTA Logo and the PURPOSE ICON   
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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 71512-1A-L1G 0914**  
**4046526**

GROUP 29 FUNGICIDE



## Agricultural Fungicide

Active Ingredient:

Fluazinam: 3-chloro-*N*-[3-chloro-2,6-dinitro-4-trifluoromethyl)phenyl]-5-trifluoromethyl-2-pyridinamine (CA) . . . . . 40.0%

Other Ingredients: . . . . . 60.0%

Total: . . . . . 100.0%

Contains 4.17 pounds fluazinam per gallon (500 grams per liter).

EPA Reg. No. 71512-1-100

EPA Est. 1022-TN-001

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.

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

SCP 71512-1A-L1G 0914  
4046526

**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.)

### FIRST AID

**If on skin:** 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. **If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by 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 do so by the poison control center or doctor. Do not give anything to an unconscious person. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

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

Causes skin irritation. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if inhaled or swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before use. Do not take internally.

**Environmental Hazards:** This product is toxic to fish and aquatic invertebrates. 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 contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

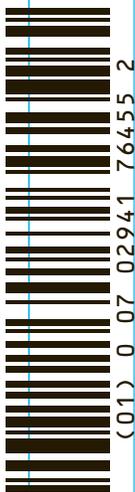
### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**Pesticide Storage:** Store in original container, in a secured, dry place separate from food and feed.

**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 guidance.

**Container Handling:** 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 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 a mix tank or store rinsate for later use or 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, if allowed by state and local authorities, by burning. If burned, stay out of smoke.



## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **OMEGA® 500F**  
Product No.: A7087F  
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  
Eye Damage/Irritation: Category 2B  
Signal Word (OSHA): Warning  
Hazard Statements: Causes skin irritation  
May cause an allergic skin reaction  
Causes eye irritation

Hazard Symbols:



Precautionary Statements: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice.  
Avoid breathing mist, vapors, spray.  
Wash hands and face thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves, protective clothing, eye protection.  
If on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice.  
See Section 4 First Aid Measures.  
Take off contaminated clothing and wash it before reuse.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Common Name	CAS Number	Concentration
Other ingredients	Other ingredients	Trade Secret	60%
3-chloro-N-[3-chloro-2,6-dinitro-4-trifluoromethyl)phenyl]-5-trifluoromethyl-2-pyridinamine	Fluazinam	79622-59-6	40.0%

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 control 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:

- Eye irritation
- Skin irritation
- Allergic skin reaction

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.

## OMEGA® 500F

Date: 7/7/2015

Replaces: 2/17/2015

**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 in Protective Equipment Section. 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:

Not Applicable

**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
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Fluazinam	Not Established	Not Established	0.7 mg/m <sup>3</sup> TWA	Manufacturer

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. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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.

## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

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

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow liquid  
Odor: Pungent  
Odor Threshold: Not Available  
pH: 6.0 - 8.0  
Melting point/freezing point: Not Applicable  
Initial boiling point and boiling range: Not Available  
Flash Point (Test Method): Not Available  
Flammable Limits (% in Air): Not Available  
Flammability: Not Available  
Vapor Pressure: Fluazinam 3.8 x 10<sup>-8</sup> mgHg @ 68°F (20°C)  
Vapor Density: Not Available  
Relative Density: 1.23 - 1.26 g/ml  
Solubility (ies): Fluazinam Insoluble in/with H<sub>2</sub>O (0.1 ppm @ 68°F (20°C))  
Partition coefficient: n-octanol/water: Not Available  
Autoignition Temperature: Not Available  
Decomposition Temperature: Not Available  
Viscosity: Not Available  
Other: None

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### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.  
Chemical stability: Stable under normal use and storage conditions.  
Possibility of hazardous reactions: Will not occur.  
Conditions to Avoid: Avoid contact with heat or open flame.  
Incompatible materials: None known.  
Hazardous Decomposition Products: None known.

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### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Skin irritation

Delayed, immediate and chronic effects of exposure: Eye irritation, Skin irritation, Allergic skin reaction

## OMEGA® 500F

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

Ingestion: Oral (LD50 Rat) : > 5000 mg/kg body weight  
 Dermal: Dermal (LD50 Rat) : > 2000 mg/kg body weight  
 Inhalation: Inhalation (LC50 Rat) : > 23 mg/l air - 4 hours  
 Eye Contact: Moderately Irritating (Rabbit)  
 Skin Contact: Moderately Irritating (Rabbit)  
 Skin Sensitization: Demonstrated potential to produce dermal sensitization.

### Reproductive/Developmental Effects

Fluazinam: Did not show teratogenic effects in animal experiments.

### Chronic/Subchronic Toxicity Studies

Fluazinam: Not available.

### Carcinogenicity

Fluazinam: Did not show carcinogenic or mutagenic effects in animal experiments.

Chemical Name	NTP/IARC/OSHA Carcinogen
Other ingredients	No
3-chloro-N-[3-chloro-2,6-dinitro-4-trifluoromethyl)phenyl]-5-trifluoromethyl-2-pyridinamine	No

### Other Toxicity Information

None

### Toxicity of Other Components

Other ingredients  
 Not Applicable

### Target Organs

#### Active Ingredients

Fluazinam: Not available.

#### Inert Ingredients

Other ingredients: Not Applicable

## 12. ECOLOGICAL INFORMATION

### Eco-Acute Toxicity

Fluazinam:  
 Fish (Rainbow Trout) 96-hour LC50 36 ppb  
 Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 180 ppb  
 Green Algae 4-day EC50 0.18 ppm  
 Bird (Bobwhite Quail) 14-day LD50 1782 mg/kg

## OMEGA® 500F

Date: 7/7/2015  
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### Environmental Fate

#### Fluazinam:

The information presented here is for the active ingredient, fluazinam.

Environmental Fate and Distribution: Solid with low volatility. The substance is essentially insoluble in water. The substance has low mobility in soil.

Persistence and Degradation: There is evidence of degradation in soil and water.

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## 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: Under certain circumstances, discarded product may exhibit TCLP hazardous characteristics. A hazardous waste determination should be done on a case by case basis.

Listed Waste: Not Applicable

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## 14. TRANSPORT INFORMATION

### DOT Classification

Ground Transport - NAFTA  
Not regulated

### Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fluazinam), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fluazinam)

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

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## 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: Causes skin irritation. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if inhaled or swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before use. Do not take internally.

### EPA Registration Number(s):

71512-1-100

### EPCRA SARA Title III Classification:

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

Section 313 Toxic Chemicals: None

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

Health: 2  
Flammability: 1  
Instability: 0

#### HMIS Hazard Ratings

Health: 2  
Flammability: 1  
Reactivity: 0

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

Syngenta Hazard Category: C,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/11/2001

Revision Date: 7/7/2015

Replaces: 2/17/2015

Section(s) Revised: 2

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.