



# BLOSSOM PROTECT™

BIOLOGICAL BACTERICIDE WG

For Preventing Fire Blight in Pome Fruits, Walnut Blight in Walnuts, Bacterial Spot in Almonds\*\*, Bacterial Blast in Stone Fruit\*\* and Pome Fruits\*\*, and *Pseudomonas syringae* pv. *actinidiae* in Kiwi\*\*

**Active Ingredients:**

*Aureobasidium pullulans* strain DSM 14940\* .....25.80%  
*Aureobasidium pullulans* strain DSM 14941\* .....25.80%

**Other Ingredients:** ..... 48.40%

**Total:** ..... 100.00%

\*Contains a minimum of 8.8 x 10<sup>9</sup> cfu/gram of active ingredient.

## KEEP OUT OF REACH OF CHILDREN CAUTION

**See back panel for First Aid and additional Precautionary Statements**

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.)

**EPA Reg. No. 86174-4**  
**EPA Est. No. 86174-AUT-001**

**Lot No.** Located on container  
**Manufactured On:** Located on container

**Net Weight:**  
**2.5 Lbs (1.1 Kg)**

**Manufactured by:**  
**SAN Agrow Holding GmbH**  
Industriestraße 21,  
3130 Herzogenburg, Austria  
Tel: +43 2782 83300 OR  
sanagrow-AT@san-group.com

**For Product Information, contact:**  
**SAN Group Biotech USA, Inc.**  
1260 Avenida Chelsea  
Vista, CA 92081 USA  
Phone: (800) 876-2767

*Aureobasidium pullulans* strains DSM 14940 and 14941

GROUP

NC

BACTERICIDE



FOR ORGANIC PRODUCTION

### FIRST AID

**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 a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**If on skin or clothing:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies, call the poison control center at 1-800-222-1222. For general information on this product, contact the National Pesticides Information Center (NPIC) at 1-800-858-7378 or npic@ace.orst.edu, Monday through Friday, 8 AM to 12 PM PST.

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## PRECAUTIONARY STATEMENTS

### Hazards To Humans And Domestic Animals

**CAUTION:** Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear
- Neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), butyl rubber (≥ 14 mils) or nitrile rubber (≥ 14 mils) gloves
- Shoes plus socks

Mixer/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. (Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.)

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## ENGINEERING CONTROLS

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d) and (e)], 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 breakdown.

### USER SAFETY RECOMMENDATIONS

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should 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.

## ENVIRONMENTAL HAZARDS

For terrestrial uses: 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 disposing of equipment washwater or rinsate.

## 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 State or Tribal agency responsible for pesticide regulation.

**IMPORTANT:** Read the entire label before using this product.

### **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 (REI). 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 4 hours.

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

- Coveralls
- Protective eyewear
- Neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), butyl rubber (≥ 14 mils) or nitrile rubber (≥ 14 mils) gloves.
- Shoes plus socks

**OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS, MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.**

### **Spray Drift Reduction Management:**

The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator. Use the following as a guide for reducing drift onto non-target sites.

### **BUFFER ZONE REQUIREMENTS:**

#### **Ground, Foliar Applications:**

Do not apply by ground within 25 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

#### **Wind Speed Restrictions:**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications, determine drift potential at any given wind speed. Do not apply when winds are greater than 10 mph and avoid gusty and windless conditions. Avoiding applications when wind direction is toward the aquatic area can reduce risk of exposure to sensitive aquatic areas.

### Runoff Management:

Do not cultivate within 10 feet of aquatic areas to allow growth of a vegetative filter strip. When used on erodible soils, consult your local Soil Conservation Service before using this product in your area. Do not apply if soil is saturated with water. Do not apply under conditions that favor runoff from drift.

### Product Information

BLOSSOM PROTECT™ consists of two strains of *Aureobasidium pullulans*. *Aureobasidium pullulans* is a ubiquitous microorganism in the environment. BLOSSOM PROTECT™ must be used as a preventative measure prior to infection. The product competes for space and nutrients with the labeled pathogens. Using competitive inhibition, BLOSSOM PROTECT™ is effective against the labeled pathogens. Apply BLOSSOM PROTECT™ prior to or when environmental conditions for the growth of *Erwinia amylovora*, *Pseudomonas syringae* pv. *syringae*, *Pseudomonas syringae* pv. *actinidiae* (Psa), *Xanthomonas arboricola* pv. *juglandis* or *Xanthomonas arboricola* pv. *pruni* are present.

### MODE OF ACTION:

The microorganisms in BLOSSOM PROTECT™ colonize on the blossoms of the trees and compete with the labeled pathogens for space and nutrients. Using competitive inhibition, BLOSSOM PROTECT™ prevents the development of fire blight, walnut blight, bacterial spot and bacterial blast by colonizing the blossom and reducing the ability of the bacteria to thrive.

### COMPATIBILITY:

Not all chemicals or fertilizers can be mixed with BLOSSOM PROTECT™ during application. Many fungicides are not compatible and may be detrimental to BLOSSOM PROTECT™. Follow all the label restrictions, limitations and precautions of all products intended for use with BLOSSOM PROTECT™. For product compatibility information, contact SAN Group Biotech USA, Inc.

Fire Blight Walnut Blight Bacterial Spot Bacterial Blast Psa (Kiwi)	Copper preparations: No application 2 days before/after  Other incompatible products: During bloom: No application on the same day OR 1 day after On leaf and fruit: No application 3 days before/after
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For further information, please refer to the material safety data sheet.

### PHYTOTOXICITY:

Perform a phytotoxicity test on a few trees before large-scale application.

### MIXING INSTRUCTIONS:

1. Clean the tank before using.
2. Do not prepare highly concentrated premixtures such as thick slurries. (Low volume applications are possible with the appropriate sprayer, also following the instructions below.)
3. Add the full water amount to the tank. Do not use hot water.
4. When adding BUFFER PROTECT NT™, add the buffer slowly or step-wise to the water while constantly agitating. Note that the

spray volume must be sufficient to allow dissolving of the buffer (typical low-volume applications e.g., 10 gallons/acre and higher volumes are suitable for BUFFER PROTECT NT™).

5. Add BLOSSOM PROTECT™ to the water slowly or step-wise while constantly agitating.

Apply the spray mixture while maintaining agitation. Use spray suspension within 8 hours. Do not leave unsprayed suspension in the tank.

In 50-200 gallons water per acre, add 1.25 lbs of BLOSSOM PROTECT™ per acre.

Metric Units:

In 467-1868 L water per hectare, add 1.4 kg of BLOSSOM PROTECT™ per hectare.

The addition of BUFFER PROTECT NT™ to the mixture is beneficial. If using BUFFER PROTECT NT™, prepare the spray suspension as directed below.

In 50-200 gallons of water per acre, add 1.25 lbs of BLOSSOM PROTECT™ + 5.00 lbs of BUFFER PROTECT NT™ per acre. Add BLOSSOM PROTECT™ to the spray mix last.

Metric Units:

In 467-1868 L water per hectare, add 1.4 kg of BLOSSOM PROTECT™ + 5.6 kg of BUFFER PROTECT NT™ per hectare. Add BLOSSOM PROTECT™ to the spray mix last.

### APPLICATION INSTRUCTIONS:

Apply BLOSSOM PROTECT™ to thoroughly wet the blossoms and foliage. Apply as a foliar application using ground or aerial equipment only. Do not apply BLOSSOM PROTECT™ through any type of irrigation system. For susceptible pome fruit varieties, the product may contribute to russetting when applied during late blossom. Cool, wet weather conditions can increase the potential for russetting. Applications between stages 69 to 74 of the Biologische Bundesanstalt, Bundessortenamt und Chemische Industrie (BBCH) scale may result in potential russetting on fruit from primary bloom.

This product may be applied aurally. Please refer to Spray Drift Reduction Management section of this label for general directions and precautions.

The BBCH scale is used to identify the phenological development stages of a plant.

- 61: Beginning of flowering: about 10% of flowers open
- 62: About 20% of flowers open
- 63: About 30% of flowers open
- 64: About 40% of flowers open
- 65: Full flowering: at least 50% of flowers open, first petals falling
- 67: Flowers fading: majority of petals fallen
- 69: End of flowering: all petals fallen
- 74: Fruit diameter up to 40 mm, fruit erect (T stage) Secondary and tertiary bloom

## **FIRE BLIGHT**

Pome fruit: Applications the day before predicted infection conditions (according to disease forecasting models [i.e. Cougar Blight or Mary Blight Models]) provide optimum protection against fire blight. If the risk for fire blight is high, up to four applications provide optimum protection. Spray BLOSSOM PROTECT™ at 10%, 40%, 70%, and 90% bloom, according to the BBCH scale: BBCH 61-69; and/or during secondary and tertiary bloom. When applying for secondary bloom, wait for a minimum of 4 weeks after primary bloom to minimize russet potential.

## **BACTERIAL BLAST**

Pome fruit and Stone fruit: Up to six applications may be needed between 10% and 100% bloom.

## **WALNUT BLIGHT**

Walnuts: Up to six applications may be needed between 10% and 100% bloom.

## **BACTERIAL SPOT**

Almonds: Multiple applications may be needed during bloom and at 2.5 and 5 weeks post-petal fall.

## **KIWI PSA** (*Pseudomonas syringae* pv. *actinidiae*)

Kiwi: Up to six applications may be needed between bud swell and flowering.

For application rates, refer to the Application Tables below.

A 2.5 pound (1.1 kg) container of BLOSSOM PROTECT™ treats 2 acres.

## APPLICATION TABLE:

	DISEASE CONTROLLED	RATE	TIME OF APPLICATION
<b>POME FRUITS such as:</b> Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental Pear, Quince	Fire Blight ( <i>Erwinia amylovora</i> )  Bacterial Blast ( <i>Pseudomonas syringae</i> pv. <i>syringae</i> )**	Use 1.25 lbs of BLOSSOM PROTECT™ per 1 acre. Adjust spray volume to assure thorough coverage.	Up to 4 treatments at 10%, 40%, 70% and 90% bloom  Up to 6 treatments between 10% bloom and 100% bloom
<b>STONE FRUITS such as:</b> Apricot, Cherry (including Sweet and Tart), Nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh)	Bacterial Blast ( <i>Pseudomonas syringae</i> pv. <i>syringae</i> )**	Use 1.25 lbs of BLOSSOM PROTECT™ per 1 acre. Adjust spray volume to assure thorough coverage.	Up to 6 treatments between 10% bloom and 100% bloom
<b>WALNUTS:</b>	Walnut Blight ( <i>Xanthomonas arboricola</i> pv. <i>juglandis</i> )	Use 1.25 lbs of BLOSSOM PROTECT™ per 1 acre. Adjust spray volume to assure thorough coverage.	Up to 6 treatments between 10% bloom and 100% bloom
<b>ALMONDS:</b>	Bacterial Spot ( <i>Xanthomonas arbori- cola</i> pv. <i>pruni</i> )**	Use 1.25 lbs of BLOSSOM PROTECT™ per 1 acre. Adjust spray volume to assure thorough coverage.	Through bloom and at 2.5 and 5 weeks post-petalfall
<b>KIWI:</b>	Psa ( <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> )**	Use 1.25 lbs of BLOSSOM PROTECT™ per 1 acre. Adjust spray volume to assure thorough coverage.	From advanced bud swell through to flowering

\*\* Use not permitted in California unless otherwise directed by supplemental labeling.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** BLOSSOM PROTECT™ must be stored out of direct sunlight in a cool, dry place. Do not freeze. From date of manufacture, product can be stored 18 months at room temperature (47°F to 68°F; 9°C to 20°C) or 30 months at cold temperature (34°F to 46°F; 1°C to 8°C). Store only in original container in an area designated for pesticide storage. Keep out of reach of children. After storage times under the specified conditions have been exceeded, do not use and dispose of product in accordance with the instructions below.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later 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.

## CONDITIONS OF SALE

Seller warrants that this product consists of the ingredient specified and is reasonably fit for the purposes stated on this label when used in accordance with the directions under normal conditions of use. No one is authorized to make any other warranty or guarantee concerning this product. To the extent consistent with applicable law, any liability arising from the handling, storage and use of this product is limited to replacement of product or refund of purchase price.