



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 24, 2017

Mr. Patrick McCain
Senior Regulatory Product manager
Syngenta Crop Protection, LLC
P. O. Box 18300
Greensboro, NC 27419

Subject: Label Amendment – Adds language ascribing a temperature threshold
Product Name: **Vibrance CST**
EPA Registration Number: 100-1589
Application Date: December 9, 2016
Decision Number: 524471

Dear Mr. McCain:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

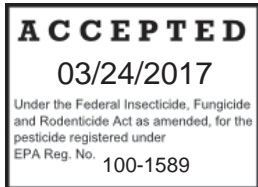
Page 2 of 2
EPA Reg. No. 100-1589
Decision No. 524471

with FIFRA section 6. If you have any questions, please contact Eleanor Thornton by phone at 703-305-6799, or via email at Thornton.eleanor@epa.gov.



Shaja B. Joyner, Product Manager 20
Fungicide-Herbicide Branch
Registration Division 7505P

Enclosure



(Master label)

GROUP 4 7 11 12 FUNGICIDES

Vibrance® CST

Fungicide

A seed treatment product for protection against damage from listed diseases on cotton.

Active Ingredients:

Azoxystrobin ¹	6.71%
Fludioxonil ²	1.12%
Mefenoxam ³	6.71%
Sedaxane ⁴	3.13%
Other Ingredients:	82.33%
Total:	100.00%

¹CAS No. 131860-33-8

²CAS No. 131341-86-1

³CAS No. 70630-17-0 and 69516-34-3

⁴CAS No. 874967-67-6

Vibrance CST is a flowable concentrate for seed treatment containing 0.63 lb azoxystrobin, 0.10 lb fludioxonil, 0.63 lb mefenoxam and 0.29 lb sedaxane per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use in booklet [on label].

EPA Reg. No. 100-1589

EPA Est.

SCP

Net Contents

FIRST AID	
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything to an unconscious person.
If on skin	<ul style="list-style-type: none">• 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.
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

CAUTION

Harmful if swallowed or absorbed through 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
- Chemical-resistant gloves: barrier laminate, butyl rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils
- Shoes plus socks

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

USER SAFETY RECOMMENDATIONS

Users should:

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

This pesticide is toxic to fish, aquatic invertebrates, oysters and shrimp. Do not contaminate water when disposing of equipment washwater or rinsate.

Groundwater Advisory

Azoxystrobin, Mefenoxam and a degradate of Azoxystrobin are known to leach through soil into groundwater under certain conditions as a result of label use. Fludioxonil has properties and characteristics associated with chemicals detected in groundwater. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Physical or Chemical Hazards

Do not mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

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.

Use is permitted in commercial seed treatment facilities. Use is also permitted on-farm, except in the state of California. In the state of California, use is restricted to commercial seed treatment facilities only. Do not use for at-plant applications (e.g. hopper box, planter box, etc.). This product is to be applied as a water-based slurry through standard slurry- or mist-type commercial seed treatment equipment.

Store between a range of 32°F to 100°F.

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.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

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), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours. Exception: If the seed is treated with the product and the treated seed is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls

- Chemical-resistant gloves: barrier laminate, butyl rubber ≥14 mils, neoprene rubber ≥14 mils, nitrile rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes plus socks

Treatment of highly mechanically scarred or damaged seed or seed known to be of low vigor and poor quality may result in reduced germination and/or reduction of seed and seedling vigor. Treat a quantity of seed using equipment similar to that planned for treating the total seed lot. Prior to treatment, conduct germination tests on a portion of seed before committing the total seed lot to a selected seed treatment.

Due to seed quality, crop or variety sensitivity, and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of carry-over seed or propagating material for all crop seed when treated with Vibrance CST.

PRODUCT INFORMATION

Vibrance CST is a broad-spectrum seed treatment fungicide containing four active ingredients: Azoxystrobin, Fludioxonil, Mefenoxam, and Sedaxane. All four of these active ingredients have a different mode of action against fungal pathogens. Vibrance CST protects cotton against damage from the Seedling Disease Complex: Damping-off, Seedling Blight, Seed Rot, and Root Rot caused by *Fusarium* species, *Pythium* species, and *Rhizoctonia* species.

Azoxystrobin is active against *Rhizoctonia* species causing seedling damping-off and *Pythium* species causing seedling blight in cotton.

Fludioxonil is active against *Fusarium* and *Rhizoctonia* species in cotton.

Mefenoxam is active against *Pythium* species causing damping-off and seed rot in cotton.

Sedaxane is active against *Rhizoctonia* species causing seed decay, seedling blight and damping-off in cotton.

RESISTANCE MANAGEMENT

GROUP 4 7 11 12 FUNGICIDES

Vibrance CST contains mefenoxam, a Group 4 fungicide; sedaxane, a Group 7 fungicide; azoxystrobin, a Group 11 fungicide; and fludioxonil, a Group 12 fungicide. Mefenoxam belongs to the phenylamide class of chemistry which interferes with fungal RNA synthesis. Sedaxane is a succinate dehydrogenase inhibitor (SDHI) and belongs

to the carboxamide class of chemistry which disrupts cellular respiration and energy generation. Azoxystrobin belongs to the strobilurin class of chemistry which disrupts cellular respiration and energy generation. Fludioxonil belongs to the phenylpyrrole class of chemistry which interferes with osmotic signal transduction.

Fungal populations may contain individuals naturally resistant to Group 4, 7, 11, or 12 fungicides and if used repeatedly in the same fields, then resistant members may eventually dominate the population. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies such as alternation with fungicides with a different mode of action and/or tank mixes established for the crop and use area.

Use should be based on an IPM program that includes field sanitation, scouting, historical information related to pesticide use, and crop rotation. The IPM program should also consider cultural, biological, and other chemical control practices.

Syngenta encourages responsible product stewardship to ensure effective long term control of the fungal diseases on this label.

For additional information on Fungicide Resistance Management:

- Contact Syngenta representatives at 1-800-334-9481.
- Contact your local extension specialist or certified crop advisor.
- Visit the Fungicide Resistance Action Committee (FRAC) on the web at: <http://www.frac.info>.

MIXING PROCEDURES

Important: Always re-circulate Vibrance CST thoroughly before using.

Follow the manufacturer's application instructions for the seed treatment equipment being used.

Apply Vibrance CST as a water-based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Thoroughly mix the specified amount of Vibrance CST into the required amount of water or liquid inoculant for the slurry treater and dilution rate to be used.

Certain crops require addition of inoculants when the seed is treated or planted. Vibrance CST is compatible with several liquid inoculant products. Consult the maker of the inoculant product and a Syngenta representative for directions before applying Vibrance CST with inoculants.

The total application volume must be sufficient to provide desired level of coverage. Dilution is typically done with water or liquid inoculants.

Continuous agitation or mixing of the slurry mixture is necessary to prevent settling out of the solution. Clean out any unused product from the treater after treating or maintain constant agitation if the leftover slurry will be maintained overnight.

- Use an EPA-approved dye or colorant that imparts an unnatural color to the seed as required in 40 CFR 153.155(c).
- Allow seed to dry before bagging.

SEED CONTAINER LABEL REQUIREMENTS

The Federal Seed Act requires that containers of treated seeds shall be labeled with the following statements:

- This seed has been treated with Azoxystrobin, Fludioxonil, Mefenoxam, and Sedaxane fungicides.
- Do not use for feed, food, or oil purposes.

In addition, the U.S. Environmental Protection Agency requires the following statements on containers of seeds treated with Vibrance CST:

- Ground Water Advisory: Azoxystrobin, Mefenoxam and a degradate of Azoxystrobin are known to leach through soil into groundwater under certain conditions as a result of label use. Fludioxonil has properties and characteristics associated with chemicals detected in groundwater. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.
- Store treated seed away from feeds and foodstuffs.
- Do not allow children, pets, or livestock to have access to treated seed.
- Wear long-sleeved shirt, long pants and chemical-resistant gloves when handling treated seed.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.
- Dispose of all excess treated seed. Leftover treated seed may be double-sown around the headland or buried away from water sources in accordance with local requirements.
- Do not contaminate water bodies when disposing of planting equipment washwaters.
- Dispose of seed packaging in accordance with local requirements.
- Excess treated seed may be used for ethanol production only if:
 - (1) By-products are not used for livestock feed, and
 - (2) No measurable residues of pesticide remain in the ethanol by-products that are used in agronomic practice.

- In the event of crop failure or harvest of a crop grown from seed treated with Vibrance CST, crops may be replanted according to the following schedule:

Plantback Interval Table

Immediate Plantback
Cereals: Barley, Corn (Field, Pop, Sweet), Oats, Rye, Sorghum, Triticale, and Wheat
Cotton
Dried Shelled Pea and Bean Crop Subgroup 6C
Potato
Rapeseed (Including Canola) Crop Subgroup 20A
Soybean
Sugarbeet

- For any other crops the minimum plantback interval is 30 days from the date seeds treated with Vibrance CST were planted.

CROP USE DIRECTIONS

When applied according to the **Vibrance CST Rate Table**, Vibrance CST provides early season protection against the diseases listed in the table below.

Vibrance CST Rate Table

Crop	Protection Against the Following Diseases ¹	Use Rate (fl oz/100 lb)	Use Rate (Total mg ai /seed) ²	Use Rate (g ai/100 kg)
Cotton	Seedling Disease Complex: Damping-off, Seedling Blight, Seed Rot, and Root Rot caused by <i>Fusarium</i> species, <i>Pythium</i> species, and/or <i>Rhizoctonia</i> species	3.06 – 4.08	0.040 – 0.053	Azoxystrobin: 15 – 20 Fludioxonil: 2.5 – 3.34 Mefenoxam: 15 – 20 Sedaxane: 7 – 9.33

¹For protection against damage from Black Root Rot, *Thielaviopsis basicola*, use Vibrance CST in combination with products containing the active ingredient myclobutanil. Use labeled rates for application as a seed treatment.

²Based on an average seed weight of 4,500 cotton seeds/lb.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in the original container and only in a cool, dry, secure place. Store between a range of 32°F to 100°F.

Pesticide Disposal

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or 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 by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons – mini-bulk]

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

Container Handling [greater than 5 gallons – bulk]

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

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

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

Vibrance®, the ALLIANCE FRAME
the SYNGENTA Logo and the PURPOSE ICON
are Trademarks of a Syngenta Group Company

Viton® is a trademark of E. I. duPont de Nemours and Company, Inc.

©20XX Syngenta

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