

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

May 5, 2021

Dr. Matthew Brooks
Director, Ag-Chem Consulting
LG Chem, Ltd.
c/o Ag-Chem Consulting
12644 Chapel Rd., Suite 108
Clifton, VA 20124

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – new

warranty/liability sections; revised storage and disposal section

Product Name: Sunaider

EPA Registration Number: 71532-40

Application Date: 08-20-2020 OPP Submission Number: 1056636

OPP Case No. 143947

Dear Dr. Brooks:

The U.S. Environmental Protection Agency (EPA) is in receipt of your application for notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Biopesticides and Pollution Prevention Division (BPPD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records. You must submit one (1) copy of the final printed labeling with the modifications.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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 EPA 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 Assurance.

Page 2 of 2 EPA Reg. No. 71532-40 OPP Submission No. 1056636 OPP Case No. 143947

If you have any questions, please contact Nina Naimy via email at naimy.nina@epa.gov.

Sincerely,

Andrew Bryceland, Team Leader Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7511P)

Office of Pesticide Programs

Sunaider

NOTI

Alternate Brand Name: "SignaFresh Plus" Optional Language appears in []

Active Ingredient:

NOTIFICATION

71532-40

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/05/2021

KEEP OUT OF REACH OF CHILDREN CAUTION

[See (side) (back) panel for first aid and additional precautionary statements.]

[See Booklet for first aid, additional precautionary statements and directions for use]

EPA Reg. No.: 71532-40

EPA Est. No.: 71532-KOR-001

Manufactured for: LG Chem Ltd.

128Yeoui-daero, Yeongdeungpo-gu

Seoul, Korea 07336

Net Contents: XX Batch/Lot Number: XX

	FIRST AID		
If on skin or clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. 		
If in eyes	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. 		
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 treatment advice. 		
HOT LINE NUMBER			
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergencies, call the poison control center at 1-800-222-1222.			

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if inhaled. Avoid breathing (dust, vapor or spray mist) and wear protective eyewear, clothing and gloves. 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 contaminated clothing and wash clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Applicators and other handlers must wear:

- Coveralls
- Waterproof gloves
- · Shoes plus socks.

Follow manufacturer's instructions for cleaning / maintaining PPE. Keep and wash PPE separately from other laundry.

User Safety Recommendations: Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: For Terrestrial Use. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. Do not apply this product in a way that will contact workers or other persons, either directly or thorough drift. Only protected handlers may be in the area during application.

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 intervals (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 of 12 hours.

PPE requirement 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, waterproof gloves and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are **not** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried or dusts have settled. For post-harvest treated commodities, unprotected persons should not handle until dip has dried.

General:

Sunaider is a growth regulator that enhances fruit quality, ripening and shelf life of select fruits, flowers and vegetables. Sunaider application does not enhance respiration, like other ripening agents. Sunaider is also known to reduce senescence by inhibiting some of enzymes involved in membrane breakdown. For these reasons, Sunaider enhances and promotes shelf life. When applied to physiologically mature fruit (at breaker stage, i.e. early stage of ripening), it stimulates and promotes ripening.

READ ENTIRE LABEL BEFORE USING THIS PRODUCT.

DIRECTIONS FOR USE: SPECIFIED TREATMENTS

Mixing Instructions:

Shake well (1-3 minutes) before mixing. See Pre-Harvest Application table below for the application rate (amount of Sunaider fl. oz./acre) specific to your crop. Dilute product with the amount of water necessary to treat the intended area. Add half the water to tank, then add Sunaider Add remaining water and mix thoroughly.

Pre-Harvest Application Directions:

Apply Sunaider in water to wet fruit uniformly, using conventional ground or aerial application equipment. For better coverage, use a sticker deposition agent. Do not use with organosilicone surfactants and use antifoam agents sparingly.

Apply Sunaider approximately two weeks prior to harvest, unless noted otherwise under "Special Instructions" on the following table.

Follow directions for specific crop listed below:

	PRE HARVEST APPLICATION					
Crop		Rate in oz/acre	Use	Special Instructions		
	getables (Crop Group 8- Fr	uiting Vegetables	<u>;)</u>			
Eggplants		8 - 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 			
Tomatoes	Vine Ripe Field	8 - 30	 Increased early marketable yield Uniform color development Improved fruit firmness 	 Apply 10 to 14 days prior to desired use response. Reapply at 14-day intervals until final harvest. 		
Tomatoes	Vine Ripe Greenhouse	2 - 4		 Apply 7 to 10 days prior to desired use response. Reapply at 7 to 14 day intervals until final harvest. 		
Tomatoes	Processing	15 - 45		 Apply approximately two weeks prior to harvest. 		
Peppers	Red Peppers Hot Peppers	27	 Accelerated fruit ripening Increased early marketable yield Uniform color development* Improved fruit quality 	Apply at 10 to 20% color break.		
	Green Peppers	27		Apply two to three weeks before harvest.		
Pimentos		8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 			

Cucurbits (Crop Group 9- Cucurbit Vegetables)				
Melons Squash Pumpkins	15 - 45	 Increased early marketable yield Accelerated fruit ripening Improved fruit quality 		
Berries/Small Fruits (Crop Group 13-	Berries Group)			
Raspberries Boysenberries Blackberries Blueberries	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 		
Cranberries	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 	 Can be applied through irrigation systems. Consult your LG Chem Ltd. representative for use guidance. 	
For tank-mixing with chlorothalonil fungicides	8 – 30	Decrease the phytotoxic effect of chlorothalonil containing fungicides	 Apply in tank mixture with the chlorothalonil fungicide. Consult the fungicide label for appropriate rate and timing of application. 	
Currants	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 	<u> </u>	
Strawberries	6- 25	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 	 Apply 7 to 10 days prior to desired use response. Reapply at 7 to 14 day intervals until final harvest. 	
Kiwi Fruit	8 – 30	 Increased early marketable yield Accelerated fruit ripening Improved fruit quality 		

Grapes Raisin, Wine and Juice, and Table Grapes (such as Flame Seedless, Crimson, Thompson Seedless and Red Globe)	 Increased early marketable yield Accelerated fruit ripening Uniform color development* 	
	 Improved fruit quality 	

Tropical and Subtropical, Ir Peel Group)	nedible Peel Group (Cr	op Group 24 – Tropical and Subtropical, Inedible
Mangos	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality
Pomegranates	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality
Pineapples	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality
Avocados	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality

Citrus (Crop Group 10 – Citrus Fruit Group)				
Grapefruits, Mineolas, Lemons, Limes, Mandarins, Oranges, Pummelos, Tangelos and Tangerines	27	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 	Apply two to three weeks before to harvest.	
		Improved fruit and rind quality	Apply four to six weeks before harvest	
Pome Fruits (Crop Group 11 - Pome F	ruit Group)			
Apples	27	 Increased early marketable yield Accelerated fruit ripening Uniform color development* Improved fruit quality 	Apply five to six weeks before harvest.	
Crabapples and Pears	27	 Increased early marketable yield Accelerated fruit ripening Uniform color development* Improved fruit quality 	Apply two weeks before harvest.	

Stone Fruits (Crop Group 12 – Stone	Fruit Group)			
Apricots and Plums	27	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 	 Apply two to three weeks before to harvest. 	
Peaches and Nectarines	14		 Apply at pit hardening, approximately three weeks before harvest 	
Red Cherries	27		Apply three weeks before harvest	
Bi-color Cherries	27		 Apply seven to 10 days before harvest 	
Tree Nuts (Crop Group 14 - Tree Nut	s Group)			
Pistachios, Walnuts, Pecans	8 – 30	Accelerated fruit ripeningImproved fruit quality		
Other Crops				
Coffee	8 – 30	 Increased early marketable yield Accelerated fruit ripening Uniform color development Improved fruit quality 		
Edible Fungi Group Commodity (Crop Group 21)				
Mushrooms	8 – 30	 Improved fruit quality Extended shelf life 		

Oilseed Group (Crop Group 20)

Cotton/Cottonseed Oil	15 – 45	 Acceleration of boll opening. 	 Apply when there are sufficient unopened mature bolls to produce desired yields.
-----------------------	---------	---	--

^{*} Not intended for uniform color development use on green peppers, pears, apricots or raisin grapes.

Post-Harvest Application Directions:

Apply Sunaider as a washwater dip or as a spray. Prior to sorting and packaging, dip fruit in well-agitated water containing Sunaider for up to 3 minutes or uniformly spray fruit with Sunaider to achieve full coverage.

See Post-Harvest Application Table for the application rate (parts per million) specific to the commodity to be treated and the Dilution Table to determine the amount of Sunaider needed to make solution. For dip applications add Sunaider to washwater, maintain water agitation and submerge fruit in washwater for up to 3 minutes. For use as a spray, dilute Sunaider in water and apply uniformly to cover fruit prior to packing. Maintain chlorine levels and water pH at levels recommended for post-harvest treatments. Allow fruit to dry before packaging. Follow standard handling procedures after treatment.

Dilution Table

Parts Per Million (PPM)	Amount of Sunaider to make 100 gallons of spray solution
25	3.5 fl. oz.
50	7 fl. oz.
100	14 fl. oz.
200	28 fl. oz.

Follow directions below for crop specific post harvest applications directions for use.

POST HARVEST APPLICATION					
Rate (ppm) for					
Crop/Commodity	dip and/or spray	Use			
Fruiting Vegetables					
Eggplants	25-100 dip 500-1000 spray	Improved fruit quality Extended shelf life			
Tomatoes Fresh Market	50-200 dip 500-1000 spray	Improved fruit quality Accelerated natural ripening			
Peppers	50-200 dip 500-1000 spray	Improved fruit quality Extended shelf life			
Berries/Small Fruits					
Blueberries Boysenberries Cranberries Currants	25-100 dip 500-1000 spray	Improved fruit quality Extended shelf life			
Tree Fruits					
Avocados	50-200 dip 500-1000 spray	Improved fruit quality Accelerated natural ripening			
Citrus Grapefruits, Mineolas, Lemons, Limes, Mandarins, Oranges, Pummelos, Tangelos and Tangerines	50-200 dip 500-1000 spray	Improved fruit quality Accelerated natural ripening			
Pome Fruits Apple, Crabapple and Pear	50-200 dip 500-1000 spray	Improved fruit quality Extended shelf life			
Stone Fruits Peaches, Plums, Cherries, Apricots	50-200 dip 500-1000 spray	Improved fruit quality Extended shelf life			

Tropical and Subtropical, Inedible Peel Group				
Bananas	50-200 dip 500-1000 spray	Accelerated natural ripeningImproved fruit qualityExtended shelf life		
Mangos Pomegranates Pineapples	50-200 dip 500-1000 spray	Improved fruit qualityExtended shelf life		

Use on Cut Flowers: Use Sunaider on freshly cut flowers to extend shelf life, improve blossom life and enhance uniform bud opening. Dilute Sunaider in water at a rate of 1-25 ppm and submerge stems of freshly cut flowers in solution. Renew Sunaider solution if water becomes cloudy.

Chemigation Directions for Use General Requirements:

- 1) Apply this product only through a sprinkler including a center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set of hand move irrigation and systems. Do not apply this product through any other type of irrigation system.
- Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make any necessary adjustments should the need arise.

Specific Requirements for Sprinkler Chemigation:

- The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of liquid back towards the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

Application Instructions:

1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to loose effectiveness or strength.

- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.
- 4) The product is to be applied continuously for the duration of the water application.

STORAGE AND DISPOSAL

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

Storage - Store at room temperature in an area away from direct sunlight until used.

Pesticide Disposal - Wastes resulting from use of this product may be disposed of at an approved waste disposal facility.

Container Handling- For Containers equal to or less than 5 Gallons: Nonrefillable container. Do not reuse or refill this container. Clean container 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 ¼ 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. 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.

For Containers greater than 5 Gallons: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over on to 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. Offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LG Chem Ltd. or the seller is authorized to vary in any way. Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product.

Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LG Chem Ltd. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LG Chem Ltd. 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 when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS", AND LG CHEM LTD MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LG CHEM LTD. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE MANUFACTURER.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LG CHEM LTD. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LG CHEM LTD. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

[OPTIONAL LABEL CLAIMS

- Sunaider is a growth regulator that enhances fruit quality, ripening and shelf life of select fruits, flowers and vegetables.
- With SignaFresh®
- MasterFreshTM]