1797-2

07-29-2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 29, 2010

Ann Beaulieu AgroFresh, Inc./Rohm and Haas Company 100 Independence Mall West Philadelphia, PA 19106-2399

> RE: Product Name: SmartFresh Technology EPA Reg. No.: 71297-2
> Application for Label Notification dated July 19, 2010 to update the storage and disposal statement per Pesticide Registration (PR) Notice 2007-4 and add an additional U.S. patent number.

Dear Ms. Beaulieu:

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under PR Notice 98-10 dated above. A preliminary screen of this request has been conducted for its applicability under PR Notice 98-10 and it has been determined that the action(s) requested falls within the scope of PR Notice 98-10. Our records have been duly noted, and the label submitted with this application has been stamped "Notification Accepted" and will be placed accordingly in our records.

If you have any questions concerning this action, please feel free to contact Mr. Colin Walsh at (703) 308-0298 or via email at <u>walsh.colin@epa.gov</u>.

Sincerely,

Linda A. Hollis

Linda A. Hollis, Chief Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7511P)

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SEPA ⊧	Environmental P	rotection Agency		Amendme	nt	
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	Appl	ication for Pesticide -	Sectio	n l		
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Company/Product (Name)	PM# S			None	Restricted
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AgroFresh Inc./Rohm and Haas	Company	to:			cation Acc	
100 Independence Mall West Philadelphia, PA 19106-2399		EPA Reg. No.			JUL 292	-
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		"Me To	o" Applica	tion.		
X Notification - Explain be			Explain b	elow.		
Explanation: Use additiona	l page(s) if necessary.	(For Section I and Section II.)				
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Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR 156.10, 156.140, 156.144, 156.146 and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirement of 40 CFR 156.10, 156.140, 156.144, 156.146 and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Att Se autien

July 19, 2010

Document Processing Desk (NOTIF) Office of Pesticide Programs (7504P) U.S. Environmental Protection Agency Room S-4900, One Potomac Yard 2777 South Crystal Drive Arlington, VA 22202-4501

Attention: Linda Hollis, Chief, Biochemical Pesticides Branch, BPPD

Re: SmartFresh[™] EPA Registration Number 71297-2 Active Ingredient = 1-methylcyclopropene Compliance with PR Notice 2007-4: Pesticide Management and Disposal; Standards for Pesticide Containers and Containment

To meet compliance with PR Notice 2007-4, the lot number has been added to the May 5, 2009 approved SmartFresh label, which included disposal instructions per PR Notice 2007-4.

Patent numbers covering this technology have also been added to this label as allowed under PR Notice 98-10.

Enclosed please find a copy of the modified label with all changes highlighted and in red font.

If you have any questions, please contact me at 215-619-5534 or <u>abeaulieu@agrofresh.com</u>. Thank you.

Sincerely,

- Seanly

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Ann Beaulieu Director, Regulatory Affairs

enclosures

Master Label

SmartFresh[™]

A unique postharvest tool for counteracting many of the undesirable effects of both internal and external sources of ethylene on harvested fruit and vegetables.

ACTIVE INGREDIENT: 1-Methylcyclopropene	
OTHER INGREDIENTS96.7%	D
TOTAL100.0%	6

Notification Accepted JUL 2 9 2010 Date: Reviewer: C. Walsh

A: SUBLABEL – COMMERCIAL LABEL FOR THE TREATMENT OF APPLES, MELONS, TOMATOES, PEARS, AVOCADOS, MANGOES, PAPAYAS, KIWIFRUIT, PEACHES, NECTARINES, PLUMS, APRICOTS, PLUMCOTS, ASIAN PEARS, BANANAS, BROCCOLI, AND PERSIMMONS

B: SUBLABEL – COMMERCIAL LABEL FOR THE TREATMENT OF APPLES, MELONS, TOMATOES, PEARS, AVOCADOS, KIWIFRUIT, PEACHES, NECTARINES, PLUMS, APRICOTS, PLUMCOTS, ASIAN PEARS, BANANAS, BROCCOLI, AND PERSIMMONS

C. SUBLABEL – COMMERCIAL LABEL FOR THE TREATMENT OF SMALL APPLE STORAGE ROOMS

EPA Reg. No. 71297-2

Lot No.

Produced by: AgroFresh Inc. A subsidiary of Rohm and Haas Company Philadelphia, PA Tel: 215-592-3000



SMARTFRESH 71297-2 MASTER LABEL with SUBLABELS; July 19, 2010 Page 1 of 19

SUBLABEL – COMMERCIAL LABEL FOR THE TREATMENT OF APPLES, MELONS, TOMATOES, PEARS, AVOCADOS, MANGOES, PAPAYAS, KIWIFRUIT, PEACHES, NECTARINES, PLUMS, APRICOTS, PLUMCOTS, ASIAN PEARS, BANANAS, BROCCOLI, AND PERSIMMONS

AgroFresh Inc A subsidiary of Rohm and Haas Company Philadelphia, PA. 19106 Tel: (215) 592-3000

SmartFresh[™]

Active Ingredient: 1-Methylcyclopropene	3.3%
Other Ingredients:	<u>96.7%</u>
Total:	. 100.0%

EPA REGISTRATION NO. 71297-2 EPA EST. NO. 707-WA-001

NOTICE: Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product in its generating system unopened and unused within thirty days of purchase to the place of purchase.

KEEP OUT OF REACH OF CHILDREN CAUTION

	FIRST AID
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.
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 swallowed	 Call 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 by mouth to an unconscious person.
	et container or label with you when calling a poison control center or doctor, or going for may also contact 215-592-3000 for emergency medical treatment information.

Net Contents: SmartFresh™ Water Soluble Pouch Sizes

0.009 oz	(0.25 grams)	0.32 oz	(9.1 grams)	3.2 oz	(89.3 grams)
0.012 oz	(0.35 grams)	0.45 oz	(12.9 grams)	3.8 oz	(106.3 grams)
0.018 oz	(0.5 grams)	0.63 oz	(17.8 grams)	4.3 oz	(123.2 grams)
0.025 oz	(0.7 grams)	0.87 oz	(24.6 grams)	4.8 oz	(135.0 grams)
0.035 oz	(1.0 grams)	1.0 oz	(29.6 grams)	5.5 oz	(155.3 grams)
0.046 oz	(1.3 grams)	1.2 oz	(34.0 grams)	6.0 oz	(170.4 grams)
0.064 oz	(1.8 grams)	1.4 oz	(40.5 grams)	6.6 oz	(187.9 grams)
0.09 oz	(2.5 grams)	1.7 oz	(46.9 grams)	7.2 oz	(204.0 grams)
0.12 oz	(3.5 grams)	2.0 oz	(55.8 grams)	7.8 oz	(220.0 grams)
0.17 oz	(4.9 grams)	2.3 oz	(64.7 grams)	8.2 oz	(232.3 grams)
0.22 oz	(6.3 grams)	2.7 oz	(77.0 grams)	8.6 oz	(244.6 grams)
0.27 oz	(7.7 grams)				

Lot No.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes slight eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Avoid breathing vapor. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators of this product must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material

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

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).

Do not enter enclosed areas until the enclosed area has been vented unless wearing the appropriate PPE. Ventilation shall continue until after thirty (30) minutes of ventilation using fans or other mechanical ventilating systems.

PPE required for early entry into enclosed areas prior to venting is:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

• Respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH

approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N,R,P, or HE prefilter.

CONDITIONS OF SALE AND WARRANTY

AgroFresh, Inc warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. AgroFresh Inc MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of AgroFresh Inc. and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL AgroFresh OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

GENERAL INFORMATION

SmartFreshTM is a powder that, when mixed with water in a proprietary generating system, releases the volatile active ingredient 1-methylcyclopropene (1-MCP).

SmartFreshTM is a unique postharvest tool for counteracting many of the undesirable effects of both internal (produced within the fruit and vegetables) and external sources of ethylene on harvested fruit and vegetables. By counteracting ethylene, SmartFreshTM provides many benefits to the fruit and vegetables during transport and storage including:

- . Maintaining firmness
- . Maintaining titratable acidity
- . Preventing superficial scald and soft scald on pome fruit
- . Reducing internal ethylene production
- . Protection from external sources of ethylene
- . Reducing fruit respiration
- . Delaying ripening and senescence
- . Reducing incidence of peel greasiness in apples
- . Reducing incidence of core flush and mealiness in pome fruit
- . Reducing chilling injury

SmartFreshTM can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. SmartFreshTM is effective under both cool (below 55 °F, 13 °C) and warm (above 55°F, 13°C) temperature conditions. To realize maximum benefit in controlling senescence, products should be treated as soon as possible after harvest.

Harvested fruits and vegetables must be exposed to the volatile active ingredient of SmartFreshTM in enclosed areas, such as storage rooms, greenhouses, coolers, shipping containers, enclosed truck trailers, or ambient temperature, refrigerated, or controlled atmosphere food storage facilities. This product is not intended for use outdoors or in other non-enclosed areas. These enclosed treatment areas should be gas tight as leakage will reduce SmartFreshTM's effectiveness.

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. All applicable directions, restrictions, precautions and conditions of sale and warranty are to be followed. This labeling must be in the user's possession during application.

Fruit and Vegetable Storage Conditions

SmartFreshTM is compatible with and complementary to fruit and vegetables stored under both controlled atmosphere and regular air fruit storage conditions. SmartFreshTM must be used in air tight treatment areas.

Timing Of Harvest And Application

SmartFreshTM should be added to the treatment area containing fruit and vegetables immediately after harvest, upon entering storage or in transit. For best results, do not use with fruit or vegetables previously treated with Ethephon. To realize maximum benefit for optimum quality, fruit should be pre-cooled promptly and SmartFreshTM should be applied in the treatment area as soon after harvest as possible and before the climacteric peak of respiration has occurred. Best results from SmartFreshTM are obtained with fruit and vegetables at the optimum maturity level for long term storage. Fruit and vegetables may benefit from repeat application. After application, fruit and vegetables not for immediate sale should be stored, according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere is recommended for fruit that is to be held longer than 6 months.

It must be emphasized that maintaining the cold chain (keeping the fruit and vegetables cool at all times) and strict adherence to phytosanitary practices remain essential in maintaining safe and high-quality fruit and vegetables. For optimum control of superficial scald on pome fruits, SmartFreshTM must be applied within two weeks of harvest.

Apples: Apply SmartFresh[™] soon after harvest. Best results are obtained when fruit is at the optimum maturity level for long term storage. For optimum quality, store apples that are to be held longer than six months in a controlled atmosphere.

Avocados: Apply SmartFresh[™] to the fruit soon after harvest at the physiological maturity stage or just prior to the "turning black" stage.

Bananas: Apply SmartFresh[™] after the bananas have been exposed to ethylene and prior to reaching color stage 4.

Broccoli, melons, persimmons, mangoes, papayas, pears and Asian pears: Apply SmartFresh[™] as soon after harvest as possible.

Kiwifruit: Apply SmartFreshTM either as soon after harvest as possible or after long term storage and before the fruit are transported and distributed

Tomatoes: Apply SmartFresh[™] between color stage mature green (Color Stage 1) and light red (Color Stage 5).

Peaches, nectarines, plums, plumcots, and apricots: Apply SmartFresh[™] either as soon after harvest as possible or after long term storage and before the fruit are transported and distributed

APPLICATION METHOD

Prior to application, ensure that the treatment area can be properly and promptly sealed following application.

SmartFreshTM is applied by the use of proprietary generators which are available in two sizes: large and small. See Table 1 to select the appropriate size generator and the amount of SmartFresh TM for the fruit and vegetables to be treated in the treatment area. Fill the treatment area with fruit and vegetables. Place the appropriate generator on a stable surface of the treatment area in a position that would be within the flow of air from the internal refrigeration system.

Push the start button to activate the generator. With the generator running, add 2 gallons (8 liters) of water to the large generator, or 3 quarts (0.8 liters) of water to the small generator. Use water at a temperature between 20 degrees and 40 degrees Centigrade (68 to 104 degrees Fahrenheit). Remove the appropriate size SmartFresh[™] water soluble pouches from the protective foil packets and drop the pouches into the water contained in the generator. Immediately leave the storage area and seal the door in order to contain the 1-MCP vapor and ensure the maximum efficacy of 1-MCP. The release of the 1-MCP to the area will start several minutes after the water soluble pouch is added to the generator.

After the area is sealed, post a sign on all of the entrances to the treatment area. The sign should read "CAUTION. Do not enter area. SmartFreshTM treatment in progress." The doors to the storage area should remain sealed for the following periods of time to ensure effective SmartFreshTM treatment.

Apple, apricot, nectarine, peach, pear, plum, and plumcot- 24 hours Asian pear - 15 hours Avocado, banana, broccoli, kiwifruit, melon, persimmon, mango, papaya and tomato - 12 hours

Entrance to the room prior to these time periods will compromise the treatment. During the treatment, the internal refrigerated air circulation should be running to ensure good air circulation within the room. All vents to outside air should be closed, and any ethylene scrubbing devices or ozone generating equipment should be turned off. At the end of the SmartFreshTM treatment period, vent the treated room by opening the doors for a minimum of thirty minutes with continued full internal ventilation before allowing workers to enter. At the end of the room venting, remove the generator. The spent water contained in the generator can be disposed by pouring down a suitable drain. Treated fruit and vegetables not intended for immediate sale should be stored according to good, standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere conditions is recommended for fruit that is planned to be held longer than 6 months.

Restrictions

- Restricted Entry Period (REI): 30 minutes after room has been vented
- Do not smoke during the SmartFreshTM application.

Table 1. Selection of Appropriate Size Generators and SmartFresh™ Pouches

Selection based on volume of treatment area. Calculate the treatment area volume by measuring the length, width and height of the treatment area in feet. Multiply these three numbers together to obtain the treatment area volume in cubic feet. For example, if a room is 4 feet wide, 50 feet long and 5 feet high, the treatment area volume equals 1000 cubic feet. To determine the amount of SmartFresh powder, multiply the treatment volume by the rate shown in the table for the selected crop and use the pouches that correspond to the calculated amount.

CROP	RATE* per 1000 ft3		Restriction
	ounces	grams	
Apple, Asian Pear, Avocado, Broccoli	0.051 - 0.067	1.4 – 1.9	
Pear	0.02 - 0.04	0.58 - 1.2	Do not apply more than 0.067
Apricot, Kiwifruit, Mango, Melon, Nectarine, Papaya, Peach, Plumcot Plum, Persimmon, Tomato	0.031-0.034	0.87 – 0.96	ounces/1000ft ³ (1.9 grams/1000 ft3)
Banana	0.017 - 0.020	0.48 - 0.58	

* The large (2 gallon capacity) generator should be used for amounts greater than 0.63 ounces (18 grams) of powder. It is best to use multiple generators for more than two pouches.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original packaging in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty outer foil package in trash. Triple rinse the generator with water after use. Instructions for returning the used generators will be provided by AgroFresh Inc.

SmartFresh[™] is a registered trademark of AgroFresh Inc./Rohm and Haas Company U.S. Patents 5,518,988 and 6,017,849

AgroFresh Inc. A Fully-Owned Subsidiary of Rohm and Haas Company 100 Independence Mall West Philadelphia, PA. 19106 (215) 592-3000

SUBLABEL – COMMERCIAL LABEL FOR THE TREATMENT OF APPLES, MELONS, TOMATOES, PEARS, AVOCADOS, KIWIFRUIT, PEACHES, NECTARINES, PLUMS, APRICOTS, PLUMCOTS, ASIAN PEARS, BANANAS, BROCCOLI, AND PERSIMMONS

AgroFresh Inc A subsidiary of Rohm and Haas Company Philadelphia, PA. 19106 Tel: (215) 592-3000

SmartFresh[™]

Active Ingredient: 1-Methylcyclopropene	3.3%
Other Ingredients:	<u>96.7%</u>
Total:	100.0%

EPA REGISTRATION NO. 71297-2 EPA EST. NO. 707-WA-001

NOTICE: Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product in its generating system unopened and unused within thirty days of purchase to the place of purchase.

KEEP OUT OF REACH OF CHILDREN CAUTION

	FIRST AID
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.
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 swallowed	 Call 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 by mouth to an unconscious person.
	t container or label with you when calling a poison control center or doctor, or going for may also contact 215-592-3000 for emergency medical treatment information.

Net Contents: SmartFresh[™] Water Soluble Pouch Sizes

0.009 oz 0.012 oz 0.018 oz 0.025 oz 0.035 oz 0.046 oz 0.064 oz 0.09 oz 0.12 oz 0.17 oz	(0.25 grams) (0.35 grams) (0.5 grams) (0.7 grams) (1.0 grams) (1.3 grams) (1.8 grams) (2.5 grams) (3.5 grams) (4.9 grams)	0.32 oz 0.45 oz 0.63 oz 0.87 oz 1.0 oz 1.2 oz 1.4 oz 1.7 oz 2.0 oz 2.3 oz	(9.1 grams) (12.9 grams) (17.8 grams) (24.6 grams) (29.6 grams) (34.0 grams) (40.5 grams) (40.9 grams) (55.8 grams) (64.7 grams)	3.2 oz 3.8 oz 4.3 oz 4.8 oz 5.5 oz 6.0 oz 6.6 oz 7.2 oz 7.8 oz 8.2 oz	(89.3 grams) (106.3 grams) (123.2 grams) (135.0 grams) (155.3 grams) (170.4 grams) (187.9 grams) (204.0 grams) (220.0 grams) (232.3 grams)
	(0)				· · · ·
0.17 02 0.22 oz 0.27 oz	(6.3 grams) (7.7 grams)	2.3 02 2.7 oz	(77.0 grams)	8.6 oz	(244.6 grams)

Lot No.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes slight eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Avoid breathing vapor. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators of this product must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material

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

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).

Do not enter enclosed areas until the enclosed area has been vented unless wearing the appropriate PPE. Ventilation shall continue until after thirty (30) minutes of ventilation using fans or other mechanical ventilating systems.

PPE required for early entry into enclosed areas prior to venting is:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

• Respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N,R,P, or HE prefilter.

CONDITIONS OF SALE AND WARRANTY

AgroFresh, Inc warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. AgroFresh Inc MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of AgroFresh Inc. and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL AgroFresh OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

GENERAL INFORMATION

SmartFreshTM is a powder that, when mixed with water in a proprietary generating system, releases the volatile active ingredient 1-methylcyclopropene (1-MCP).

SmartFreshTM is a unique postharvest tool for counteracting many of the undesirable effects of both internal (produced within the fruit and vegetables) and external sources of ethylene on harvested fruit and vegetables. By counteracting ethylene, SmartFreshTM provides many benefits to the fruit and vegetables during transport and storage including:

- . Maintaining firmness
- . Maintaining titratable acidity
- . Preventing superficial scald and soft scald on pome fruit
- . Reducing internal ethylene production
- . Protection from external sources of ethylene
- . Reducing fruit respiration
- . Delaying ripening and senescence
- . Reducing incidence of peel greasiness in apples
- . Reducing incidence of core flush and mealiness in pome fruit
- . Reducing chilling injury

SmartFreshTM can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. SmartFreshTM is effective under both cool (below 55 °F, 13 °C) and warm (above 55°F, 13°C) temperature conditions. To realize maximum benefit in controlling senescence, products should be treated as soon as possible after harvest.

Harvested fruits and vegetables must be exposed to the volatile active ingredient of SmartFreshTM in enclosed areas, such as storage rooms, greenhouses, coolers, shipping containers, enclosed truck trailers, or ambient temperature, refrigerated, or controlled atmosphere food storage facilities. This product is not intended for use outdoors or in other non-enclosed areas. These enclosed treatment areas should be gas tight as leakage will reduce SmartFreshTM's effectiveness.

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. All applicable directions, restrictions, precautions and conditions of sale and warranty are to be followed. This labeling must be in the user's possession during application.

Fruit and Vegetable Storage Conditions

SmartFreshTM is compatible with and complementary to fruit and vegetables stored under both controlled atmosphere and regular air fruit storage conditions. SmartFreshTM must be used in air tight treatment areas.

Timing Of Harvest And Application

SmartFreshTM should be added to the treatment area containing fruit and vegetables immediately after harvest, upon entering storage or in transit. For best results, do not use with fruit or vegetables previously treated with Ethephon. To realize maximum benefit for optimum quality, fruit should be pre-cooled promptly and SmartFreshTM should be applied in the treatment area as soon after harvest as possible and before the climacteric peak of respiration has occurred. Best results from SmartFreshTM are obtained with fruit and vegetables at the optimum maturity level for long term storage. Fruit and vegetables may benefit from repeat application. After application, fruit and vegetables not for immediate sale should be stored, according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere is recommended for fruit that is to be held longer than 6 months.

It must be emphasized that maintaining the cold chain (keeping the fruit and vegetables cool at all times) and strict adherence to phytosanitary practices remain essential in maintaining safe and high-quality fruit and vegetables. For optimum control of superficial scald on pome fruits, SmartFreshTM must be applied within two weeks of harvest.

Apples: Apply SmartFresh[™] soon after harvest. Best results are obtained when fruit is at the optimum maturity level for long term storage. For optimum quality, store apples that are to be held longer than six months in a controlled atmosphere.

Avocados: Apply SmartFresh[™] to the fruit soon after harvest at the physiological maturity stage or just prior to the "turning black" stage.

Bananas: Apply SmartFresh[™] after the bananas have been exposed to ethylene and prior to reaching color stage 4.

Broccoli, melons, persimmons, pears and Asian pears: Apply SmartFresh[™] as soon after harvest as possible.

Kiwifruit: Apply SmartFreshTM either as soon after harvest as possible or after long term storage and before the fruit are transported and distributed

Tomatoes: Apply SmartFresh[™] between color stage mature green (Color Stage 1) and light red (Color Stage 5).

Peaches, nectarines, plums, plumcots, and apricots: Apply SmartFresh[™] either as soon after harvest as possible or after long term storage and before the fruit are transported and distributed

APPLICATION METHOD

Prior to application, ensure that the treatment area can be properly and promptly sealed following application.

SmartFreshTM is applied by the use of proprietary generators which are available in two sizes: large and small. See Table 1 to select the appropriate size generator and the amount of SmartFresh TM for the fruit and vegetables to be treated in the treatment area. Fill the treatment area with fruit and vegetables. Place the appropriate generator on a stable surface of the treatment area in a position that would be within the flow of air from the internal refrigeration system.

Push the start button to activate the generator. With the generator running, add 2 gallons (8 liters) of water to the large generator, or 3 quarts (0.8 liters) of water to the small generator. Use water at a temperature between 20 degrees and 40 degrees Centigrade (68 to 104 degrees Fahrenheit). Remove the appropriate size SmartFresh[™] water soluble pouches from the protective foil packets and drop the pouches into the water contained in the generator. Immediately leave the storage area and seal the door in order to contain the 1-MCP vapor and ensure the maximum efficacy of 1-MCP. The release of the 1-MCP to the area will start several minutes after the water soluble pouch is added to the generator.

After the area is sealed, post a sign on all of the entrances to the treatment area. The sign should read "CAUTION. Do not enter area. SmartFreshTM treatment in progress." The doors to the storage area should remain sealed for the following periods of time to ensure effective SmartFreshTM treatment.

Apple, apricot, nectarine, peach, pear, plum, and plumcot-24 hours Asian pear - 15 hours Avocado, banana, broccoli, kiwifruit, melon, persimmon, and tomato - 12 hours

Entrance to the room prior to these time periods will compromise the treatment. During the treatment, the internal refrigerated air circulation should be running to ensure good air circulation within the room. All vents to outside air should be closed, and any ethylene scrubbing devices or ozone generating equipment should be turned off. At the end of the SmartFreshTM treatment period, vent the treated room by opening the doors for a minimum of thirty minutes with continued full internal ventilation before allowing workers to enter. At the end of the room venting, remove the generator. The spent water contained in the generator can be disposed by pouring down a suitable drain. Treated fruit and vegetables not intended for immediate sale should be stored according to good, standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere conditions is recommended for fruit that is planned to be held longer than 6 months.

Restrictions

- Restricted Entry Period (REI): 30 minutes after room has been vented
- Do not smoke during the SmartFreshTM application.

Table 1. Selection of Appropriate Size Generators and SmartFresh™ Pouches

Selection based on volume of treatment area. Calculate the treatment area volume by measuring the length, width and height of the treatment area in feet. Multiply these three numbers together to obtain the treatment area volume in cubic feet. For example, if a room is 4 feet wide, 50 feet long and 5 feet high, the treatment area volume equals 1000 cubic feet. To determine the amount of SmartFresh powder, multiply the treatment volume by the rate shown in the table for the selected crop and use the pouches that correspond to the calculated amount.

CROP	RATE* per 1000 ft3		Restriction	
	ounces	grams		
Apple, Asian Pear, Avocado, Broccoli	0.051 - 0.067	1.4 – 1.9		
Pear	0.02 - 0.04	0.58 - 1.2	Do not apply more than 0.067	
Apricot, Kiwifruit, Melon, Nectarine, Peach, Plumcot, Plum, Persimmon, Tomato	0.031-0.034	0.87 – 0.96	ounces/1000ft ³ (1.9 grams/1000 ft3)	
Banana	0.017 - 0.020	0.48 - 0.58		

* The large (2 gallon capacity) generator should be used for amounts greater than 0.63 ounces (18 grams) of powder. It is best to use multiple generators for more than two pouches.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original packaging in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty outer foil package in trash. Triple rinse the generator with water after use. Instructions for returning the used generators will be provided by AgroFresh Inc.

SmartFresh[™] is a registered trademark of AgroFresh Inc./Rohm and Haas Company U.S. Patents 5,518,988 and 6,017,849

AgroFresh Inc. A Fully-Owned Subsidiary of Rohm and Haas Company 100 Independence Mall West Philadelphia, PA. 19106 (215) 592-3000

SUBLABEL – COMMERCIAL LABEL FOR THE TREATMENT OF SMALL APPLE STORAGE ROOMS

AgroFresh Inc A subsidiary of Rohm and Haas Company Philadelphia, PA. 19106 Tel: (215) 592-3000

SmartFreshTM **Singles**

Active Ingredient: 1-Methylcyclopropene	3.3%
Other Ingredients:	<u>96.7%</u>
Total:	100.0%

EPA REGISTRATION NO. 71297-2 EPA EST. NO. 707-WA-001

NOTICE: Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product in its generating system unopened and unused within thirty days of purchase to the place of purchase.

KEEP OUT OF REACH OF CHILDREN CAUTION

	FIRST AID
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.
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 swallowed	 Call 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 by mouth to an unconscious person.
	t container or label with you when calling a poison control center or doctor, or going for may also contact 215-592-3000 for emergency medical treatment information.

Net Contents: 3 water soluble pouches containing 0.07 ounces (2 grams) each (0.21 ounces total; 6 grams total)

Lot No.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes slight eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Avoid breathing vapor. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators of this product must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material

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

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).

Do not enter enclosed areas until the enclosed area has been vented unless wearing the appropriate PPE. Ventilation shall continue until after thirty (30) minutes of ventilation using fans or other mechanical ventilating systems.

PPE required for early entry into enclosed areas prior to venting is:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

• Respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides

(MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N,R,P, or HE prefilter.

CONDITIONS OF SALE AND WARRANTY

AgroFresh, Inc warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. AgroFresh Inc MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of AgroFresh Inc. and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL AgroFresh OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

GENERAL INFORMATION

SmartFreshTM is a powder that, when mixed with water in a proprietary generating system, releases the volatile active ingredient 1-methylcyclopropene (1-MCP).

SmartFreshTM is a unique postharvest tool for counteracting many of the undesirable effects of both internal (produced within the apple) and external sources of ethylene on harvested apples. By counteracting ethylene, SmartFreshTM provides many benefits to the fruit during transport and storage including:

- . Maintaining firmness
- . Maintaining titratable acidity
- . Preventing superficial scald and soft scald on apples
- . Reducing internal ethylene production
- . Protection from external sources of ethylene
- . Reducing apple respiration
- . Delaying ripening and senescence
- . Reducing incidence of peel greasiness in apples
- . Reducing incidence of core flush and mealiness in apples
- . Reducing chilling injury

SmartFreshTM can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. SmartFreshTM is effective under both cool (below 55 °F, 13 °C) and warm (above 55°F, 13°C) temperature conditions. To realize maximum benefit in controlling senescence, products should be treated as soon as possible after harvest.

Harvested apples must be exposed to the volatile active ingredient of SmartFreshTM in enclosed areas, such as storage rooms, greenhouses, coolers, shipping containers, enclosed truck trailers, or ambient temperature, refrigerated, or controlled atmosphere food storage facilities. This product is not intended for use outdoors or in other non-enclosed areas. These enclosed treatment areas should be gas tight as leakage will reduce SmartFreshTM's effectiveness.

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. All applicable directions, restrictions, precautions and conditions of sale and warranty are to be followed. This labeling must be in the user's possession during application.

Apple Storage Conditions

SmartFreshTM is compatible with and complementary to apples stored under both controlled atmosphere and regular air apple storage conditions. SmartFreshTM must be used in air tight treatment areas.

Timing Of Harvest And Application

SmartFreshTM should be added to the treatment area containing apples immediately after harvest, upon entering storage or in transit. For best results, do not use with fruit previously treated with Ethephon. To realize maximum benefit for optimum quality,apples should be pre-cooled promptly and SmartFreshTM should be applied in the treatment area as soon after harvest as possible and before the climacteric peak of respiration has occurred. Best results from SmartFreshTM are obtained with apples at the optimum maturity level for long term storage. Fruits may benefit from repeat application. After application, apples not for immediate sale should be stored, according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere is recommended for apples that are to be held longer than 6 months.

It must be emphasized that maintaining the cold chain (keeping the apples cool at all times) and strict adherence to phytosanitary practices remain essential in maintaining safe and high-quality apples. For optimum control of superficial scald on apples, SmartFreshTM must be applied within two weeks of harvest.

APPLICATION METHOD

Prior to application, ensure that the treatment area can be properly and promptly sealed following application.

SmartFresh[™] is applied by the use of a proprietary dispenser. See Table 1 to select the appropriate number of SmartFresh[™] Singles and dispensers for apples and the size of the treatment area. Fill the treatment area with apples. Place the appropriate number of dispensers on a stable, level surface of the treatment area in a position that would be within the flow of air from the internal refrigeration system.

Remove the lid and seal from the dispenser. Open the bag that contains the SmartFreshTM Singles. Place the appropriate number of Singles into the appropriate number of dispensers. Use one dispenser for 1-3 Singles, two dispensers for 4-6 Singles, three dispensers for 7-9 Singles, etc. However many dispensers are used, only use a maximum of three Singles per dispenser. Add ½ gallon (2 liters) of water at a temperature between 20 degrees and 40 degrees Centigrade (68 to 104 degrees Fahrenheit) to each dispenser. Do not use cold water. Immediately leave the storage area and seal the door in order to contain the 1-MCP vapor and ensure the maximum efficacy of 1-MCP. The release of the 1-MCP to the area will start several minutes after the water is added to the dispenser. Reseal unused Singles in the bag and store in a cool dry place for future use.

After the area is sealed, post a sign on all of the entrances to the treatment area. The sign should read "CAUTION. Do not enter area. SmartFreshTM treatment in progress." The doors to the storage area should remain sealed for 24 hours to ensure effective SmartFreshTM treatment. Entrance to the room prior to 24 hours will compromise the treatment. During the treatment, the internal refrigerated air circulation should be running to ensure good air circulation within the room. All vents to outside air should be closed,

and any ethylene scrubbing devices or ozone generating equipment should be turned off. At the end of the SmartFreshTM treatment period, vent the treated room by opening the doors for a minimum of thirty minutes with continued full internal ventilation before allowing workers to enter. At the end of the room venting, remove the dispenser(s). The spent water contained in the dispenser(s) can be disposed by pouring down a suitable drain. Treated apples not intended for immediate sale should be stored according to good, standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere conditions is recommended for apples that are planned to be held longer than 6 months.

Restrictions

Restricted Entry Period (REI): 30 minutes after room has been vented Do not smoke during the SmartFreshTM application.

TABLE 1. Selection Of Singles and Dispensers For Treatment Of Apples

Selection based on volume of treatment area. Calculate the treatment area volume by measuring the length, width and height of the treatment area in feet. Multiply these three numbers together to obtain the treatment area volume in cubic feet. For example, if a room is 4 feet wide, 5 feet long and 5 feet high, the treatment area volume equals 100 cubic feet.

Treatment Area Size (empty volume)	Number of SmartFresh™ Singles Required	Number of Dispensers Required**
ft ³		
1,000 - 1,500	1	1
2,000 - 2,900	2	1
3,000 - 4,000	3	1
4,000 - 5,000	4	2
5,000 - 6,000	5	2 2
6,000 - 7,000	6	2
7,000 - 8,000 8,000 - 9,000	7 8	3
9,000 - 10,000	9	3
10.000 11.000	10	
10,000 - 11,000	10	4
<u>11,000 - 12,000</u> 12,000 - 13,000	11	4
12,000 13,000	12	· ••
13,000 - 14,000	13	5
14,000 - 15,000	14	5
15,000 - 16,000	15	5
16,000 - 17,000	16	
17,000 - 18,000	17	6
18,000 - 19,000*	16	6

* For larger treatment area, continue to extrapolate, with each SmartFreshTM Single adding an additional 1000 ft³ to the treatment area size.

** Maximum of 3 Singles per dispenser



STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original packaging in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty outer foil package in trash. Triple rinse the dispenser. Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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