U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Biopesticides and Pollution Prevention Division (7511P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460	EPA Reg. Number: 62097-52	Date of Issuance: 8/1/2018
NOTICE OF PESTICIDE: <u>X</u> Registration Reregistration	Term of Issuance: Unconditional	
(under FIFRA, as amended)	Name of Pesticide Product: FAL 3100	
Name and Address of Registrant (include ZIP Code): Fine Agrochemicals Limited Hill End House Whittington, Worcester WR5 2RQ, UK		
<b>Note:</b> Changes in labeling differing in substance from that accepted in connection with this registration Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any corresp Registration Number.		
On the basis of information furnished by the registrant, the above named p Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).	pesticide is hereby re	egistered under the
Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.		
This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:		
1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.		
2. Submit storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) data as these data requirements are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of this registration to provide these data to the EPA.		
Signature of Approving Official:	Date:	
andrew C. Knycelow		8
Andrew Bryceland, Team Leader Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7511P) Office of Pesticide Programs		

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- 3. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 62097-52."
- 4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

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 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.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

• Basic CSF dated 01/12/2018

Any CSFs other than the CSF listed above are superseded.

If you have any questions, please contact James Parker of my team by phone at (703) 306-0469or via email at <u>parker.james@epa.gov</u>.

Sincerely,

anchent . kupelow

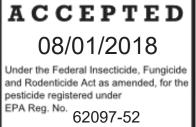
Andrew Bryceland, Team Leader Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7511P) Office of Pesticide Programs

Enclosure

# Master Label FAL 3100

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

<b>ACTIVE INGREDIENT:</b>	
1-Methylcyclopropene	
OTHER INGREDIENTS:	<u>96.7%</u>
TOTAL:	



SUBLABEL A – 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

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

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

EPA Reg. No. 62097-

#### **SUBLABEL A:**

## 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

# FAL 3100

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

EPA REG. NO. 62097-EPA EST. NO.

Lot/Batch No.

# 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	Take off contaminated clothing.
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 by a poison control center or doctor.
	• Do not give anything to an unconscious person.
Have the produc	et 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, 24 hours a day, 7 days a	
week for emerge	ency medical treatment information.

Net Contents: FAL 3100 Water Soluble Pouch Sizes

0.09 oz. (2.5 g), 0.12 oz. (3.5 g), 0.17 oz. (4.9 g), 0.21 oz. (5.9 g), 0.30 oz. (8.5 g), 0.46 oz. (12.9 g), 0.63 oz. (17.8 g) and 0.87 oz. (24.6 g)

Page 2 of 19 July 27, 2018

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Causes moderate 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.

#### **GENERAL INFORMATION**

FAL 3100 is a powder that, when mixed with water in an appropriate application system the volatile active ingredient 1-methylcyclopropene (1-MCP) will be released.

FAL 3100 is a postharvest tool that can be used to counteract a number of undesirable effects of both internal (produced within the fruit and vegetables) and external sources of ethylene on harvested fruit and vegetables. By counteracting ethylene, FAL 3100 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

FAL 3100 can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. FAL 3100 is effective under temperature conditions considered both cool (below 55 °F, 13 °C) and warm (above 55°F, 13°C). 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 FAL 3100 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. Enclosed treatment areas should be gas tight as leakage will reduce FAL 3100 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.

#### 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.

#### Fruit and Vegetable Storage Conditions

FAL 3100 is compatible with and complementary to fruit and vegetables stored under both controlled atmosphere and regular air fruit storage conditions. FAL 3100 must be used in air tight treatment areas.

#### **Timing Of Harvest And Application**

FAL 3100 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 FAL 3100 should be applied in the treatment area as soon after harvest as possible. The application should be before the climacteric peak of respiration has occurred. Best results from FAL 3100 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. For fruit that is to be held for more than 6 months, storage in controlled atmosphere is recommended.

It must be emphasized that maintaining the fruit and vegetables cool at all times and strictly adhering to phytosanitary practices are essential in maintaining safe and high-quality fruit and vegetables. For optimum control of superficial scald on pome fruits, FAL 3100 must be applied within two weeks of harvest.

Apples: Apply FAL 3100 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 FAL 3100 to the fruit soon after harvest at physiological maturity stage or just prior to the "turning black" stage.

Bananas: Apply FAL 3100 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 FAL 3100 as soon after harvest as possible.

Kiwifruit: Apply FAL 3100 either as soon after harvest as possible or apply after long term storage and before the fruit are transported and distributed

Tomatoes: Apply FAL 3100 between color stage mature green (Color Stage 1) and light red (Color Stage 5).

Peaches, nectarines, plums, plumcots, and apricots: Apply FAL 3100 either as soon after harvest as possible or apply 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.

FAL 3100 is applied by the use of proprietary applicator devices which are available in two sizes: Standard and Small. See Table 1 to select the appropriate size applicator device and the amount of FAL 3100 for the fruit and vegetables to be treated in the treatment area. Fill the treatment area with fruit and vegetables. Place the appropriate applicator device 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 applicator device. With the applicator device running, add 2 gallons (8 liters) of water to the Standard applicator or 0.85 quarts (0.8 liters) of water to the Small applicator. Use water at a temperature between 20 degrees and 40 degrees Centigrade (68 to 104 degrees Fahrenheit). Remove the appropriate size(s) of FAL 3100 water soluble pouches from the protective foil packets and drop the pouches into the water contained in the applicator device. 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 applicator device.

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. FAL 3100 treatment in progress."** The doors to the storage area should remain sealed for the following periods of time to ensure effective FAL 3100 treatment.

Crop to be treated	Treatment Time Duration for Specified Crop (hours)
Apple, apricot, nectarine, peach, pear, plum, and	24
plumcot	
Asian pear	15
Avocado, banana, broccoli, kiwifruit, melon,	12
persimmon, mango, papaya and tomato	

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 FAL 3100 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 applicator device. The spent water contained in the applicator 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. For fruit intended to be held for longer than 6 months, storage in controlled atmosphere conditions is recommended.

#### Restrictions

- Restricted Entry Period (REI): 30 minutes after room has been vented
- Do not smoke during application of FAL 3100.

Table 1. Selection of Appropriate Size Applicator Device and FAL 3100 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 10 feet wide, 50 feet long and 10 feet high, the treatment area volume equals 5000 cubic feet. To determine the amount of FAL 3100 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. (EXAMPLE: For Pear applied at the higher rate of 0.04 ounces/1000 ft<sup>3</sup>, the calculation would be as follows: 0.04 (ounces/1000 ft<sup>3</sup>) x 5 (5000 ft<sup>3</sup>/1000 ft<sup>3</sup> = 5) = 0.2 ounces of FAL – 1-MCP to be applied to pears in a 5000 ft<sup>3</sup> room).

CROP	RATE* per 1000 ft <sup>3</sup>		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 <sup>3</sup> (1.9 grams/1000 ft <sup>3</sup> )
Banana	0.017 - 0.020	0.48 - 0.58	

\* The Standard (2 gallon capacity) applicator device should be used for amounts greater than 0.63 ounces (18 grams) of powder. It is best to use multiple devices 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 Handling:** 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 Fine Agrochemicals Ltd.

#### WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

Fine Agrochemicals Limited ("FINE") warrants that this Product conforms to the specifications on this label. To the extent consistent with applicable law, FINE makes no other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for a particular purpose. No agent of FINE or any other person is authorized to make any representation or warranty beyond those contained herein.

It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors such as abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.

© Fine Agrochemicals Limited, Hill End House, Whittington, Worcester, WR5 2RQ, United Kingdom

#### **SUBLABEL B**

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

# FAL 3100

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

EPA REG. NO. EPA EST. NO.

Lot/Batch No.

# 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	Take off contaminated clothing.		
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 by the poison control center or doctor.		
	• Do not give anything to an unconscious person.		
	et 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, 24 hours a day, 7 days a		
week for emerge	ency medical treatment information.		

Net Contents: FAL 3100 Water Soluble Pouch Sizes

0.09 oz. (2.5 g), 0.12 oz. (3.5 g), 0.17 oz. (4.9 g), 0.21 oz. (5.9 g), 0.30 oz. (8.5 g), 0.46 oz. (12.9 g), 0.63 oz. (17.8 g) and 0.87 oz. (24.6 g)

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Causes moderate 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.

#### GENERAL INFORMATION

FAL 3100 is a powder that, when mixed with water in an appropriate application system the volatile active ingredient 1-methylcyclopropene (1-MCP) will be released.

FAL 3100 is a postharvest tool that can be used to counteract a number of undesirable effects of both internal (produced within the fruit and vegetables) and external sources of ethylene on harvested fruit and vegetables. By counteracting ethylene, FAL 3100 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

FAL 3100 can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. FAL 3100 is effective under temperature conditions considered both cool (below 55 °F, 13 °C) and warm (above 55°F, 13°C). 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 FAL 3100 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. Enclosed treatment areas should be gas tight as leakage will reduce FAL 3100 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.

Page 9 of 19 July 27, 2018

#### 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.

#### Fruit and Vegetable Storage Conditions

FAL 3100 is compatible with and complementary to fruit and vegetables stored under both controlled atmosphere and regular air fruit storage conditions. FAL 3100 must be used in air tight treatment areas.

#### **Timing Of Harvest And Application**

FAL 3100 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 FAL 3100 should be applied in the treatment area as soon after harvest as possible. The application should be before the climacteric peak of respiration has occurred. Best results from FAL 3100 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. For fruit that is to be held for more than 6 months, storage in controlled atmosphere is recommended.

It must be emphasized that maintaining the fruit and vegetables cool at all times and strictly adhering to phytosanitary practices are essential in maintaining safe and high-quality fruit and vegetables. For optimum control of superficial scald on pome fruits, FAL 3100 must be applied within two weeks of harvest.

Apples: Apply FAL 3100 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 FAL 3100 to the fruit soon after harvest at the physiological maturity stage or just prior to the "turning black" stage.

Bananas: Apply FAL 3100 after the bananas have been exposed to ethylene and prior to reaching color stage 4.

Broccoli, melons, persimmons, pears and Asian pears: Apply FAL 3100 as soon after harvest as possible.

Kiwifruit: Apply FAL 3100 either as soon after harvest as possible or apply after long term storage and before the fruit are transported and distributed.

Tomatoes: Apply FAL 3100 between color stage mature green (Color Stage 1) and light red (Color Stage 5).

Peaches, nectarines, plums, plumcots, and apricots: Apply FAL 3100 either as soon after harvest as possible or apply 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.

FAL 3100 is applied by the use of proprietary applicator devices which are available in two sizes: Standard and Small. See Table 1 to select the appropriate size applicator device and the amount of FAL 3100 for the fruit and vegetables to be treated in the treatment area. Fill the treatment area with fruit and vegetables. Place the appropriate applicator 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 applicator device. With the applicator device running, add 2 gallons (8 liters) of water to the Standard applicator or 0.85 quarts (0.8 liters) of water to the Small applicator. Use water at a temperature between 20 degrees and 40 degrees Centigrade (68 to 104 degrees Fahrenheit). Remove the appropriate size(s) of FAL 3100 water soluble pouches from the protective foil packets and drop the pouches into the water contained in the applicator device. 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 applicator device.

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. FAL 3100 treatment in progress."** The doors to the storage area should remain sealed for the following periods of time to ensure effective FAL 3100 treatment.

Crop to be treated	Treatment Time Duration for Specified Crop (hours)
Apple, apricot, nectarine, peach, pear, plum, and	24
plumcot	
Asian pear	15
Avocado, banana, broccoli, kiwifruit, melon,	12
persimmon and tomato	

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 FAL 3100 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 applicator device. The spent water contained in the applicator 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. For fruit intended to be held for longer than 6 months, storage in controlled atmosphere conditions is recommended.

#### Restrictions

- Restricted Entry Period (REI): 30 minutes after room has been vented
- Do not smoke during application of FAL 3100.

Table 1. Selection of Appropriate Size Applicator Device and FAL 3100 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

Page 11 of 19 July 27, 2018 area volume in cubic feet. For example, if a room is 10 feet wide, 50 feet long and 10 feet high, the treatment area volume equals 5000 cubic feet. To determine the amount of FAL 3100 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. (EXAMPLE: For Pear applied at the higher rate of 0.04 ounces/1000 ft<sup>3</sup>, the calculation would be as follows: 0.04 (ounces/1000 ft<sup>3</sup>) x 5 (5000 ft<sup>3</sup>/1000 ft<sup>3</sup> = 5) = 0.2 ounces of FAL – 1-MCP to be applied to pears in a 5000 ft<sup>3</sup> room)

CROP	RATE* per 1000 ft <sup>3</sup>		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 <sup>3</sup> (1.9 grams/1000 ft <sup>3</sup> )
Banana	0.017 - 0.020	0.48 - 0.58	

\* The Standard (2 gallon capacity) applicator device should be used for amounts greater than 0.63 ounces (18 grams) of powder. It is best to use multiple devices 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 Handling:** 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 Fine Agrochemicals Ltd.

#### WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

Fine Agrochemicals Limited ("FINE") warrants that this Product conforms to the specifications on this label. To the extent consistent with applicable law, FINE makes no other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for a particular purpose. No agent of FINE or any other person is authorized to make any representation or warranty beyond those contained herein.

It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors such as abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label

Page 12 of 19 July 27, 2018 shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.

 ${\ensuremath{\mathbb C}}$  Fine Agrochemicals Limited, Hill End House, Whittington, Worcester, WR5 2RQ, United Kingdom

## **SUBLABEL C**

# COMMERCIAL LABEL FOR THE TREATMENT OF SMALL APPLE STORAGE ROOMS

# FAL 3100

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

EPA REG. NO. 62097-EPA EST. NO.

Lot/Batch No.

# 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	Take off contaminated clothing.
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 by the poison control center or doctor.
	• Do not give anything to an unconscious person.
Have the produc	t 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, 24 hours a day, 7 days a	
week for emerge	ency medical treatment information.

Net Contents: 0.09 oz. (2.5 g), 0.12 oz. (3.5 g), 0.17 oz. (4.9 g), 0.21 oz. (5.9 g), 0.30 oz. (8.5 g), 0.46 oz. (12.9 g), 0.63 oz. (17.8 g) and 0.87 oz. (24.6 g)

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Causes moderate 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.

#### GENERAL INFORMATION

FAL 3100 is a powder that, when mixed with water in an appropriate application system the volatile active ingredient 1-methylcyclopropene (1-MCP) will be released.

FAL 3100 is a postharvest tool that can be used to counteract a number of undesirable effects of both internal (produced within the apple) and external sources of ethylene on harvested apples. By counteracting ethylene, FAL 3100 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

FAL 3100 can be used immediately after harvest, prior to storage, prior to shipment and/or just prior to sale. FAL 3100 is effective under temperature conditions considered both cool (below 55 °F, 13 °C) and warm (above 55°F, 13°C). 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 FAL 3100 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. Enclosed treatment areas should be gas tight as leakage will reduce FAL 3100 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.

#### 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.

#### **Apple Storage Conditions**

FAL 3100 is compatible with and complementary to apples stored under both controlled atmosphere and regular air apple fruit storage conditions. FAL 3100 must be used in air tight treatment areas.

#### **Timing Of Harvest And Application**

FAL 3100 should be added to the treatment area containing the 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 FAL 3100 should be applied in the treatment area as soon after harvest as possible. The application should be before the climacteric peak of respiration has occurred. Best results from FAL 3100 are obtained with apples at the optimum maturity level for long term storage. Fruits may benefit from repeat application. After application, apple fruit not for immediate sale should be stored, according to good standard commercial practices, in either refrigerated air or controlled atmosphere. For fruit that is to be held for more than 6 months, storage in controlled atmosphere is recommended.

It must be emphasized that maintaining the apple fruit cool at all times and strictly adhering to phytosanitary practices are essential in maintaining safe and high-quality apples. For optimum control of superficial scald on apples, FAL 3100 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.

FAL 3100 is applied by the use of proprietary applicator device. See Table 1 to select the appropriate amount of FAL 3100 and applicator devices for the apples and the size of the treatment area. Fill the treatments area with apples. Place the appropriate number of applicator devices 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 applicator device. Open the bag that contains the FAL 3100 pouches. Place the appropriate amount of FAL 3100 into the appropriate number of applicator devices. Use one dispenser for 1 - 3 FAL 3100 pouches, two dispensers for 4 - 6 FAL 3100 pouches, three dispensers for 7 - 9 FAL 3100 pouches, etc. However, when many dispensers are used, only use a maximum of three FAL 3100 pouches per dispenser. Add  $\frac{1}{2}$  gallon (2 liters) of water at a temperature between 20 degrees and 40 degrees Centigrade (68 to 104 degrees Fahrenheit) to each applicator device. Do not use cold water.

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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 applicator device. Reseal unused FAL 3100 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. FAL 3100 treatment in progress."** The doors to the storage area should remain sealed for 24 hours to ensure effective FAL 3100 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 FAL 3100 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. For apples that are intended to be held for longer than 6 months, storage in controlled atmosphere conditions is recommended.

#### Restrictions

**Restricted Entry Period (REI):** 30 minutes after room has been vented. Do not smoke during the FAL 3100 application.

#### TABLE 1. Selection Of FAL 3100 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 ft<sup>3</sup>.

Treatment Area Size (empty volume)	Number of FAL 3100 pouches Required	Number of Applicator Devices Required**
ft <sup>3</sup>		
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
6,000 - 7,000	6	2
7,000 - 8,000	7	3
8,000 - 9,000	8	
9,000 - 10,000	9	3
10,000 - 11,000	10	4
11,000 - 12,000	11	4
12,000 - 13,000	12	4
13,000 - 14,000	13	5
14,000 - 15,000	14	5
15,000 - 16,000	15	5
16,000 - 17,000	16	6
17,000 - 18,000	17	6
18,000 - 19,000*	16	6

\* For larger treatment area, continue to extrapolate, with each FAL 3100 pouch adding an additional 1000 ft<sup>3</sup> to the treatment area size.

\*\* Maximum of 3 FAL 3100 pouches 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 Handling:** 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.

#### WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

Fine Agrochemicals Limited ("FINE") warrants that this Product conforms to the specifications on this label. To the extent consistent with applicable law, FINE makes no other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for a particular purpose. No agent of FINE or any other person is authorized to make any representation or warranty beyond those contained herein.

It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors such as abnormal weather conditions, use of the Product

Page 18 of 19 July 27, 2018 other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.

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