

This label has been updated according to the re-evaluation decision for 1-Methylcyclopropene RVD2023-15. While users are encouraged to follow this updated label immediately, the previously approved label is valid until 09-26-2025 in accordance with the phase out period set out in the re-evaluation decision for 1-Methylcyclopropene RVD2023-15. This previously approved label will be provided upon request by emailing hc.pmra.info-arla.sc@canada.ca. In your email please include the product name and Registration number of the label you are requesting.

SMARTFRESH TECHNOLOGY™
Powder
Plant Growth Regulator

For post-harvest use on apples and pears only.

**FOR USE ONLY BY AGROFRESH-TRAINED OPERATORS. THE WATER SOLUBLE
PACKET IS ONLY TO BE USED WITH THE SMARTFRESH TECHNOLOGY
PROPRIETARY DELIVERY DEVICE.**

COMMERCIAL

ACTIVE INGREDIENT: 1-Methylcyclopropene..... 3.3%

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL BEFORE USING

REGISTRATION NO.: 27778 PEST CONTROL PRODUCTS ACT

DO NOT SELL WATER SOLUBLE PACKETS SEPARATELY
DO NOT touch water soluble packets with wet gloves, as they will dissolve.
DO NOT open or puncture water soluble packets.

NET CONTENTS

0.7 grams	7.7 grams	46.9 grams	187.9 grams
1.0 grams	9.1 grams	55.8 grams	204 grams
1.3 grams	12.9 grams	64.7 grams	220.0 grams
1.8 grams	15.0 grams	77 grams	232.3 grams
2.0 grams	17.8 grams	89.3 grams	244.6 grams
2.5 grams	20.0 grams	106.3 grams	278.5 grams
3.5 grams	24.6 grams	123.2 grams	310.6 grams
4.9 grams	29.6 grams	135 grams	342.7 grams
6.3 grams	34.0 grams	155.3 grams	347.8 grams
6.8 grams	40.5 grams	179.4 grams	406.9 grams

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GENERAL INFORMATION

SmartFresh Technology is a powder that, when mixed with water in a proprietary delivery device, releases the volatile active ingredient 1-methylcyclopropene (1-MCP).

SmartFresh Technology is a postharvest tool for counteracting many of the undesirable effects of internal ethylene produced in harvested apple and pear fruit. SmartFresh Technology maintains fruit firmness through its effect in delaying the rise in internal ethylene production and respiration that occurs during ripening. Therefore, ripening and senescence of fruit treated with SmartFresh Technology can be expected to occur later than in untreated fruit. SmartFresh Technology also reduces superficial scald in apples and suppresses senescent scald in pears.

For best results, SmartFresh Technology should be used shortly after harvesting, prior to storage, shipment, or sale. Apply SmartFresh Technology to apples and pears at fruit and air temperatures ranging from 0-23°C. Fruit should be harvested at optimum maturity for long term storage or the performance of SmartFresh Technology in delaying senescence may be reduced.

Harvested apples and pears must be exposed to the volatile active ingredient of SmartFresh Technology in air tight ambient temperature, refrigerated, or controlled atmosphere food storage facilities with a volume of at least 40 cubic metres. This product must not be used outdoors or in non-enclosed areas. These enclosed treatment areas should be air tight as leakage will reduce effectiveness of SmartFresh Technology.

DIRECTIONS FOR USE

Fruit Storage Conditions

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

Timing of Harvest and Application

For optimum fruit quality, only fruit that are at, or near, the optimum maturity level for long term storage should be treated with SmartFresh Technology. To realize maximum benefit in delaying senescence and retention of fruit firmness, fruit should be pre-cooled promptly and treated with SmartFresh Technology as soon as possible after harvest.

Apply SmartFresh Technology to the treatment room within one day after harvest at fruit and air temperatures of up to 23°C. Alternatively, for fruit that are cooled to 0-3°C within one day after harvest, SmartFresh Technology may be applied to the treatment room within 10 days after harvest.

Repeat applications of SmartFresh Technology may be made to rooms that are being filled over several days, such that newly added lots of fruit are treated at the optimum time. Fruit exposed to multiple applications of SmartFresh Technology prior to storage in refrigerated air may sometimes benefit in terms of increased firmness retention.

After application, fruit not for immediate sale must be stored, according to good standard

commercial practices, in either refrigerated air or in a controlled atmosphere.

For best results, do not treat fruit that have had a pre-harvest application of ethephon. Where SmartFresh Technology is applied to ethephon-treated fruit, do not store such fruit in refrigerated air storage for longer than two months and do not place such fruit in controlled atmosphere storage. Do not apply SmartFresh Technology to ethephon-treated fruit that is over-mature when harvested.

Fruit treated prior to storage may also benefit from a repeat application (for firmness retention) made during or shortly after removal from long-term storage. For fruit stored in a controlled atmosphere, any repeat application should be made within 240 days of harvesting. Where fruit were not treated with SmartFresh Technology prior to storage, it is particularly important that application be made as early as possible during storage for best results.

A maximum of four (4) applications may be made to any one lot of apples or pears.

It must be emphasized that maintaining the cold chain (keeping the fruit cool at all times) and strict adherence to phytosanitary practices remain essential in maintaining safe and high-quality fruit.

The degree of response of apples or pears to SmartFresh Technology may be affected by such factors as variety, environmental conditions, and maturity at harvest. Treatment with SmartFresh Technology followed by controlled atmosphere storage may increase incidence and severity of CO₂ injury. Consult with your local Agricultural Extension Service on steps you should take to reduce this risk.

For Apples

To reduce superficial scald, SmartFresh Technology should be applied within 3 days after harvest to apples that were cooled to 0-3°C within one day after harvest. Maximum reduction in superficial scald can be expected for apples harvested at optimum maturity and stored for up to 180 days.

For Pears

To suppress senescent scald, SmartFresh Technology should be applied within 3 days after harvest to pears that were cooled to 0-3°C within one day after harvest. Maximum suppression in senescent scald can be expected for pears harvested at optimum maturity and stored for up to 180 days.

Application Method

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

SmartFresh Technology is applied by the use of SmartFresh Technology Proprietary Delivery Devices which are available in two sizes: large and small. See Table 1 to select the appropriate size proprietary delivery device and the amount of SmartFresh Technology for the fruit to be treated in the treatment area. Fill the treatment area with fruit. Place the appropriate SmartFresh

Technology Proprietary Delivery Device on a stable surface of the treatment area in a position that would be within the flow of air from the internal air circulation system.

Push the start button to start the SmartFresh Technology Proprietary Delivery Device. With the SmartFresh Technology Proprietary Delivery Device running, add 8 litres of water to the large SmartFresh Technology Proprietary Delivery Device, or 0.8 litres of water to the small proprietary delivery device. Add an antifoam. For the small generator, add approximately 2 mL of antifoam; for the large generator, add approximately 4 mL of antifoam. Use water at a temperature between 20 degrees and 40 degrees C (68 to 104 degrees F). Remove the appropriate sized SmartFresh Technology water soluble pouch from the protective foil packet and drop the pouch into the water contained in the SmartFresh Technology Proprietary Delivery Device. Immediately leave the storage area and seal the door in order to contain the 1-MCP vapour and prevent worker exposure 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 SmartFresh Technology Proprietary Delivery Device.

After the area is sealed, post a sign on all of the entrances to the treatment area. The sign must read “**CAUTION. Do not enter area. SmartFresh Technology treatment in progress.**” The doors to the storage area should remain sealed for the 24 hours to ensure effective SmartFresh Technology treatment. All vents to outside air should be closed, and any ethylene scrubbing devices or ozone generating equipment must be turned off. Do not enter until treatment is complete (after 24 hours) and the treatment room has been ventilated for 30 minutes. For re-entry prior to treatment completion, the room must be ventilated for 30 minutes and individuals must wear a long-sleeved shirt, long pants, and chemical-resistant gloves as well as either a respirator with a NIOSH/MSHA/BHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH/MSHA/BHSE approved canister approved for pesticides. In case of emergency contact a trained AgroFresh Inc. employee. The doors to the treatment room must remain sealed for 24 hours to ensure effective SmartFresh Technology treatment. Entrance to the room prior to 24 hours will invalidate the treatment. During the treatment, the internal air circulation system must be running to ensure good air circulation within the treatment room. All vents to outside air must be closed. At the end of the SmartFresh Technology 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 SmartFresh Technology Proprietary Delivery Device. The spent water contained in the SmartFresh Technology Proprietary Delivery Device can be disposed by pouring down a drain. Treated fruit 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.

Reentry Interval

Do not enter or allow worker entry into the treatment room until treatment is completed (after 24 hours) and the treatment room is vented for a minimum of thirty minutes.

Table 1. Selection of Appropriate Size SmartFresh Technology Proprietary Delivery Device and SmartFresh Technology Pouches

Selection is based on volume of treatment area. Calculate the treatment area volume by measuring the length, width and height of the treatment area in metres. Multiply these three numbers together to obtain the treatment area volume in cubic metres. For example, if a room is 4 metres wide, 5 metres long and 5 metres high, the treatment area volume will be 100 cubic metres. To determine the amount of SmartFresh Technology 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* grams per 100 m ³	Restriction
Apple	5.8 – 6.8	Do not apply more than 6.8 g/100 m³ (equivalent to 1.0 ppm active ingredient) per treatment. Limit of four (4) treatments.
Pear	1.7 – 2.0	Do not apply more than 2.0 g/100 m³ (equivalent to 0.3 ppm active ingredient) per treatment. Limit of four (4) treatments.

* The large (8 litres capacity) SmartFresh Technology Proprietary Delivery Device should be used for amounts greater than 18 grams of powder. When multiple soluble pouches are used, it is best to use one soluble pouch per device.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

Causes slight eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Avoid breathing vapour. Wash thoroughly with soap and water after handling.

During mixing, loading, application, clean-up and repair or re-entry: a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes.

Remove contaminated clothing and wash separately before reuse.

Eye protection (when required): protective eyewear (goggles or face shield).

Respirator: a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides, or a NIOSH-approved canister approved for pesticides.

Do not smoke during SmartFresh Technology application.

If required, individuals may re-enter the treatment room prior to treatment completion, following 30 minutes of venting the 1-MCP from the treatment room. Upon re-entry, individuals must wear a long-sleeved shirt, long pants, and chemical-resistant gloves as well as either a respirator with a NIOSH/MSHA/BHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH/MSHA/BHSE approved canister approved for pesticides.

DO NOT contaminate irrigation/drinking water supplies or aquatic habitats by disposal of unused product.

FIRST AID:

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further 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 centre or doctor for treatment advice.

Take the container label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:

Treat symptomatically.

STORAGE:

Store in original tightly closed container. Do not ship or store near food, feed, seed and fertilizers. Store in cool, dry, locked, well-ventilated area without floor drain. Keep water soluble packet in original foil overpack away from moisture.

DISPOSAL:

Triple rinse the empty SmartFresh Technology Proprietary Delivery Device. Do not reuse the foil overpack or the SmartFresh Technology Proprietary Delivery Device for any other purpose. The empty SmartFresh Technology Proprietary Delivery Device must be returned to AgroFresh for disposal or refurbishing. For information on disposal of unused, unwanted product contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

SmartFresh Technology™ is a registered trademark of AgroFresh Inc.
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