2023-5656
2024-06-03

This label has been updated according to the re-evaluation decision of 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 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.

FYSIUM®

Gas

Plant Growth Regulator

For postharvest use on apples

COMMERCIAL

ACTIVE INGREDIENT: 1-methylcyclopropene 98.0%

1-methylcyclopropene (1-MCP) gas is produced in situ upon activation of the proprietary FYSIUM® Technology delivery system; it is to be used only by operators trained in the use of the FYSIUM Technology.

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL BEFORE USING REGISTRATION NO. 33072

PEST CONTROL PRODUCTS ACT.

Refer to booklet for precautionary statements, and storage and disposal statements, and directions for use

NET CONTENTS: 0.8 – 222 mL

Janssen Pharmaceutica NV
Janssen PMP Division
1125 Trenton-Harbourton Road
Titusville, NJ 08560
U.S.A.
(609) 730-2607

GENERAL INFORMATION

The FYSIUM® Technology provides a novel postharvest application technique for producing and delivering 1-MCP to apples. The FYSIUM® Proprietary Cartridge contains three different components, which, when placed in the FYSIUM® Proprietary Generator and activated, produces the active constituent, 1–methylcyclopropene (1-MCP) gas. This purified gas is discharged into the fruit storage room/enclosure where it inhibits the spoilage effects of ethylene on apples.

Each FYSIUM® Proprietary Cartridge is custom-prepared with the exact amounts of the three components corresponding to the volume of the storage room/enclosure to be treated in order to deliver up to the maximum level of 1 ppm 1-MCP. Neither the FYSIUM® Proprietary Generator nor the FYSIUM® Proprietary Cartridges contains 1- MCP until activation.

Regulating ethylene production in storage and during transport provides benefits, such as:

- Maintaining fruit firmness and titratable acidity
- Reducing internal ethylene production and fruit respiration
- Protection from external sources of ethylene
- Delaying ripening and senescence
- Reduces superficial scald in apples

FYSIUM® brand 1-MCP should be applied to apples just after harvest, prior to storage, transport or sale. Treatment with 1-MCP is effective under both cool and warm temperature conditions. To realize maximum benefit in controlling senescence, fruit should be treated as soon as possible after harvest and harvested at optimum maturity for long-term storage. Harvested apples must be exposed to 1-MCP in enclosed areas, such as storage rooms, coolers, shipping containers, enclosed truck trailers, or ambient and refrigerated regular air, 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 1-MCP’s effectiveness.

DIRECTIONS FOR USE:

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only trained service providers may be in the area during treatment. This labeling must be in the user's possession during application.

Apple Storage Conditions

FYSIUM® may be used in both controlled atmosphere and regular air storage conditions. FYSIUM® must be used in air-tight treatment areas.

Timing of Harvest and Application

FYSIUM® should be used in the treatment area containing apples immediately after harvest, upon entering storage or in transit. To realize the maximum benefit for optimum quality, pre-cool apples promptly and apply FYSIUM® in the treatment area as soon after harvest as possible and before the climacteric peak of respiration has occurred. Best results from FYSIUM® are obtained with fruit at the optimum maturity level for long term storage. The response of apples may also be affected by variety. After application, store the treated fruit not for immediate sale according to good standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere is recommended for fruit that are to be held longer than 6 months.

Apply FYSIUM to the treatment room within one day after harvest at fruit and air temperatures of up to 23ϟC or, for fruit that have been cooled to 0 - 3ϟC within one day of harvest, FYSIUM may be applied to the treatment room within 10 days after harvest.

Repeat applications of FYSIUM 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 FYSIUM prior to storage in refrigerated air may sometimes benefit in terms of increased firmness retention. A maximum of four (4) applications may be made to any lot of apples. 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 controlled atmosphere, any repeat application should be made within 240 days of harvesting. Where fruit were not treated with FYSIUM prior to storage, it is particularly important that application be made as early as possible during storage for best results.

For best results, do not use with fruit previously treated with ethephon pre-harvest. Where FYSIUM 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 FYSIUM to ethephon-treated fruit that is over mature when harvested.

Maintaining the cold chain (keeping the treated fruit cool at all times) and strict adherence to phytosanitary practices remain essential in maintaining safe and high- quality fruit.

Superficial Scald

To reduce superficial scald, FYSIUM should be applied within 3 days after harvest to apples that were cooled to 0-3°C within 1 day after harvest. Maximum reduction in superficial scald can be expected for apples harvested at optimal maturity and stored no more than 180 days.

FYSIUM® Application Method

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

The 1-MCP produced by the FYSIUM Technology is generated in situ by the use of a proprietary cartridge and generator system. The appropriate amount of the three components in the cartridge will be dispensed at the production facility as necessary for the individual application situation (size of the room and/or amount of fruit to be treated). Directions for using the Cartridge and Generator follow:

1. Fill the treatment area with fruit
2. Seal the treatment room/storage location in preparation for treatment
3. Connect the tube from the outlet port of the FYSIUM® generator into the closed treatment room/storage location
4. Install FYSIUM® cartridge into the generator
5. Connect FYSIUM® generator to power supply
6. Switch on the generator and allow it to warm up. This generally takes 15 to 20 minutes. More warm-up time is required to heat larger quantities of reactants as are necessary to treat larger rooms. Refer to the unit manual for the generator for more information.
7. After 2 hours, the FYSIUM® generator switches off automatically
8. Disconnect FYSIUM® generator
9. Remove the FYSIUM® cartridge and follow container handling directions
10. Keep the treatment area closed for the next 24 hours

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 or open the door. FYSIUM® treatment in progress." The doors to the storage area must remain sealed for 24 hours to ensure effective 1-MCP treatment. Entrance to the room prior to 24 hours will compromise the treatment. During the treatment, run the internal refrigerated air circulation to ensure good air circulation within the room. Close all vents to outside air and turn off any ethylene scrubbing devices or ozone generating equipment. At the end of the FYSIUM treatment period, vent the treated room by opening the doors for a minimum of 30 minutes with continued full internal ventilation before allowing workers to enter. Store

treated apples not intended for immediate sale according to good, standard commercial practices, in either refrigerated air or controlled atmosphere. Storage in controlled atmosphere conditions is recommended for fruit stored longer than 6 months.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN
Prevent access to the FYSIUM Technology by unauthorized personnel. Do not smoke during FYSIUM application.
May be harmful if inhaled. Avoid breathing vapours. Avoid contact with eyes, skin or clothing. Wear a long-sleeved shirt, long pants, protective eyewear (goggles or face shield) , chemical resistant gloves, socks and shoes during handling, application and clean-up of the FYSIUM cartridges. Wash thoroughly with soap and water after handling and before eating or smoking.
Remove contaminated clothing and wash separately before reuse.

For entry and re-entry into treatment areas during treatment or before ventilation requirements have been met, handlers must wear: coveralls over long-sleeved shirt, long pants, chemical resistant gloves, socks and shoes, eye protection (goggles or face shield), and a respirator with a NIOSH-approved organic-vapour-removing cartridge with a pre-filter approved for pesticides, or a NIOSH-approved canister approved for pesticides.

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 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 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.

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

TOXICOLOGICAL INFORMATION: Treat symptomatically. STORAGE:

FYSIUM is a gas which is produced in situ using the FYSIUM Technology. Upon generation, it must be immediately discharged into the enclosed facility to treat the apples. Storage is prohibited.

DISPOSAL:

As FYSIUM is a gas and is used immediately upon generation, there is no unused pesticide retained for disposal. Wastes resulting from the use of this product, such as spent, partially used, damaged, and excess full cartridges, shall be collected by the service company provider and disposed of at an approved waste disposal facility as hazardous waste by incineration. The FYSIUM cartridge is a non-refillable container: do not reuse or refill this container. Not for recycling or reconditioning. The service company provider shall collect all cartridges for disposal at a licensed hazardous waste disposal facility by incineration.

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.

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