



# Ryan® Ethylene Absorption Products

SENSITECH®

## Ryan® Ethylene Absorption Products from Sensitech

*When it comes to the quality of fresh horticultural commodities, temperature management and ethylene absorption go hand-in-hand. While good temperature management is always critical for maintaining the quality of perishable food, ethylene is yet another quality-influencing variable to be considered. Ethylene is used to promote faster and more uniform ripening of produce that has been picked at the mature-green stage. However, exposure to ethylene can have a detrimental effect on the quality of fruits, vegetables and ornamentals that are classified as having a moderate-to-high ethylene production rate. For example, ethylene removal is recommended in long-term controlled-atmosphere (CA) storage of apples and pears; it is particularly important to eliminate ethylene when storing avocados, kiwifruit, persimmons, carnations and other commodities that are extremely sensitive to ethylene.*

Sensitech's line of Ryan® Ethylene Absorption products, consisting of filters and sachets, provides a cost-effective way to reduce the impact of ethylene on fresh horticultural commodities. Working with refrigerated air circulation, Ryan Ethylene Filters, which come in multiple sizes, help purify the air within road, land and sea containers. Ryan Ethylene Sachets help protect produce from the effects of ethylene inside individual shipping packages where air circulation is not available.

Postharvest changes in fresh produce cannot be fully stopped, but they can be slowed within certain limits. The use of ethylene absorbers, such as Ryan Ethylene Absorption Products, has shown to be an effective method for reducing ethylene during the transport and storage of fresh produce.

### Benefits of Ryan Ethylene Absorption Products

- Reduces waste: controls excess ripening and rotting
- Reduces water loss: impacts appearance, texture and nutritional quality of produce
- Reduces unpleasant odors emitted from over-ripened produce
- Increases customer satisfaction by delivering a higher quality product

Ryan Ethylene Filters contain a mixture of natural clays and potassium permanganate (KMnO<sub>4</sub>) and are designed to be effective in reducing ethylene, and acting as a disinfectant and anti-microbial agent. Filters need not come in direct contact with produce, which minimizes residue. Ryan Ethylene Filters are safe for use with organic products.

Absorbing ethylene from the atmosphere around the commodity is a preferred method for slowing produce deterioration.





Ryan Ethylene Sachets are designed for individual package usage, contain the same natural clays, and are as environmentally sound as Ryan Ethylene Filters. Sealed in a 5-gram, teabag-size pouch, one sachet in an individual carton will reduce ethylene, ensure airborne spore reduction and help to keep produce fresher from the packer to the end user. Ryan Ethylene Sachets are packaged in material safe for incidental contact with food; if the sachet is exposed to high humidity, the printed inks will not bleed onto the harvested commodity, and will allow ethylene gas through for oxidization to take place.

## Ryan Ethylene Sachet Specifications

<b>Size of Filter</b>	6.5 cm x 6.5 cm
<b>Granule Composition per Filter</b>	5 g
<b>Absorption Capacity</b>	3 liters/kg of granule
<b>Filters per Case</b>	1000
<b>Case Weight</b>	6.4 kg

## Ryan Ethylene Filter 100 Specifications

<b>Size of Filter</b>	4.7 cm x 100 cm
<b>Granule Composition per Filter</b>	960 g
<b>Absorption Capacity</b>	3 liters/kg of granule
<b>Filters per Case</b>	8
<b>Case Weight</b>	10.2 kg

## Ryan Ethylene Filter 75 Specifications

<b>Size of Filter</b>	4.7 cm x 75 cm
<b>Granule Composition per Filter</b>	710 g
<b>Absorption Capacity</b>	3 liters/kg of granule
<b>Filters per Case</b>	8
<b>Case Weight</b>	7.4 kg



Sensitech Inc. is a leading provider of supply and cold chain visibility solutions that enable our customers – global leaders in the food, life sciences, and industrial markets – to track, monitor and protect the quality and integrity of their temperature-sensitive products across complex supply chains. Through its logistics security division, FreightWatch International, Sensitech also offers origin-to-destination services that provide customers with real-time cargo transparency, helping them to mitigate such risks as theft, diversion, counterfeiting, and chain of custody. Sensitech Inc. is an ISO 9001:2008 company based in Beverly, Mass., with more than 30 sales, service and distribution locations around the world. Sensitech is a part of UTC Climate, Controls & Security, a unit of United Technologies Corp., a leading provider to the aerospace and building systems industries worldwide. Visit [www.sensitech.com](http://www.sensitech.com) for additional information. © 2013. Sensitech Inc. All Rights Reserved. Unless otherwise indicated, all trademarks and service marks are the property of Sensitech Inc.