

AGROPRESERVE™

S02 Generating Sheets
Securing Fresh Fruits Produce



Grapes, berries, and other fruits are horticultural crops. Fresh fruits are highly susceptible to postharvest water loss, which manifests as stem browning, berry shatter, and shriveing. Additionally, Gray mold, caused by the necrotrophic fungus *Botrytis cinerea*, is the single most destructive postharvest pathogen for fresh fruits. Because it can grow at temperatures as low as -0.5°C (31°F), it remains a threat even in professional cold storage environments.

As the demand for high-quality fresh fruits consistently grows, maintaining freshness through long-term storage and in transit has become a primary focus for the industry. Hence, we solve this gap through our Dual-release SO_2 [Sulphur dioxide] generating sheets.



How do our SO_2 preservation sheets work?

Our Sheets is available as a DUAL RELEASE sheet where a fast release first stage where the SO_2 gas emission is for 48 hrs and then a continuous slow release second stage with a prolonged and perfectly controlled, continuous emission of SO_2 gas for the preservation of table grapes or berries (From 15 days to 100 days post-harvest).

Thus, our SO_2 -generating sheets are used to extend the refrigerated storage of fruits by inhibiting fungal growth, allowing the fruits to be stored in environments with high humidity. In addition to controlling the development of microorganisms, it has an antioxidant action, influencing the physiological processes of the fruit itself, such as maintaining the green colour of the rachis. The SO_2 -generating sheets are placed on the punnets/bags inside the cardboard boxes.



Features

Even distribution of Sulphur dioxide (SO₂)

Our sheets are designed for an even consistent, controlled, & distributed release of SO₂ gas maintaining a consistent pH throughout its lifecycle. This stability prevents "gas bursts" that typically lead to berry bleaching or sulfur injuries.

Zero-Residue Technology

Unlike traditional grape guards that may leave particulate deposits, Our sheet uses a non-particulate formulation that leaves no chemical residue on the berries/grapes.

Precision Dual-Release System

As a DUAL RELEASE sheet where in fast release first stage for 48 hrs and then a continuous slow release second stage with a prolonged and perfectly controlled, continuous emission of SO₂ gas for the preservation of tablegrapes, berries (From 15 days upto 100 days).

Customized to your requirements

Our Sheets can be supplied in any number of sizes to suit the packing requirements of the buyer.

Environmentally Conscious

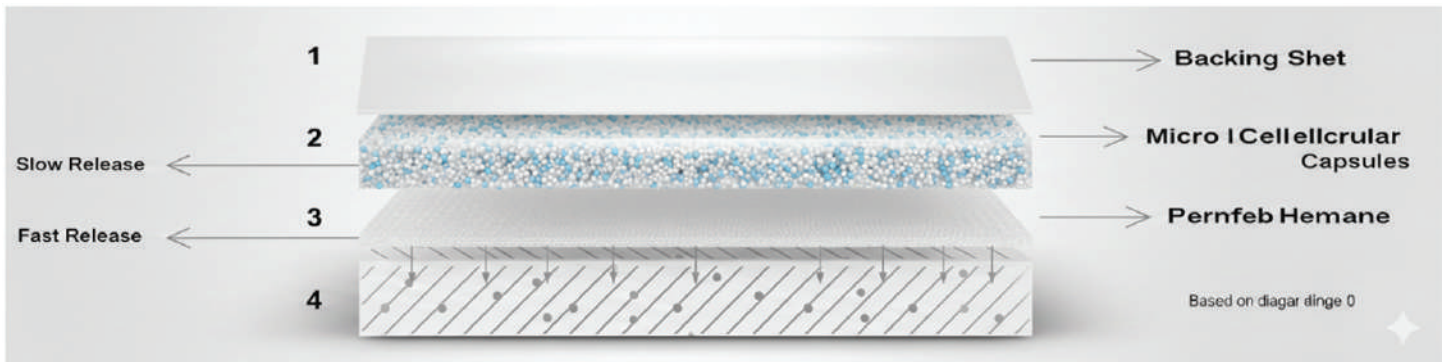
Eco-Efficient Design

By increasing the surface area of the SO₂ emitter, the sheets achieve superior efficacy using a significantly lower dosage Active ingredient. This reduces chemical waste and environmental impact upon disposal.

Paper substrate

By securing a patent for the paper substrate as well, we are moving beyond simple material replacement and addressing the core physiological needs of the grapes and fresh fruits at a molecular level and reducing plastic footprint. Thereby proving that shelf-life extension and environmental responsibility are no longer mutually exclusive.

Technical Details



Multi stage controlled release sheet is composed of 4 layers

1. The first layer is a backing sheet with details printed on the top.
2. The second layer has active content with microcellular slow release capsules. This layer emits a controlled constant slow release of SO₂ gas for a long period.
3. The third layer is composed of a special gas permeable membrane. This layer acts as a fast release of SO₂ gas and prevents fungal decay in the initial stages of storage. The gas permeable membrane allows a controlled release of SO₂ gas from layer 2 in longer storage durations.
4. The fourth layer is a perforated SO₂ emitter which helps to emit the SO₂ gas without actual contact of the active material causing no harmful effects on the fresh produce.

Contact Details

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