



Chrysal Ethylene Buster® Tablets – Ethylene Protection for Flowers, Bulbs & Plants

Overview: Chrysal Ethylene Buster® Tablets are a silver-free post-harvest treatment developed to protect ethylene-sensitive cut flowers, bulbs, and potted plants. Using the active ingredient 1-MCP (1-Methylcyclopropene), this solution blocks ethylene receptors, reducing damage caused by internal or external ethylene during transport and storage.

Key Benefits:

- Prevents premature bud, leaf, and flower drop.
- Extends vase and shelf life of cut flowers, and potted plants.
- Enhances bud opening and flower performance.
- Works on both internally and externally produced ethylene.
- Silver-free solution, based on the active ingredient 1-MCP.

Convenient Application:

- Available in easy-to-use Activator Kit with yellow / blue tablets.
- Requires use in airtight spaces (e.g., shipping containers, boxes, or rooms).
- Ideal for growers, bouquet makers, and transporters.
- Can be used in transit (truck) or storage.

Cost Efficiency & Quality Assurance:

- Reduces waste from ethylene damage.
- Extends the distribution and sales period.
- Supports quality assurance during transport and handling.
- Long-lasting protection in variable environments.

Usage Instructions:

1. Use with Chrysal Ethylene Buster® Activator Kit as per packaging instructions.
2. Follow dosage: 7 Yellow / 2 Blue tablets per Activator Kit, per 10 m³.
3. Open Activator Kit and introduce the Yellow tablets first, then the Blue ones.
4. Place in an airtight container or environment (e.g., room, box, or truck).
5. Keep treatment area closed for a minimum of 4 hours.
6. Do not open containers during treatment.

Usage Recommendations:

- **Dosage:** 7 Yellow / 2 Blue tablets per Activator Kit, per 10 m³.
- **Storage:** Store in cool, dark conditions (41°F – 77°F / 5°C – 25°C).
- **Shelf Life:** 24 months in sealed packaging.
- Do not mix treated and untreated product areas during treatment.

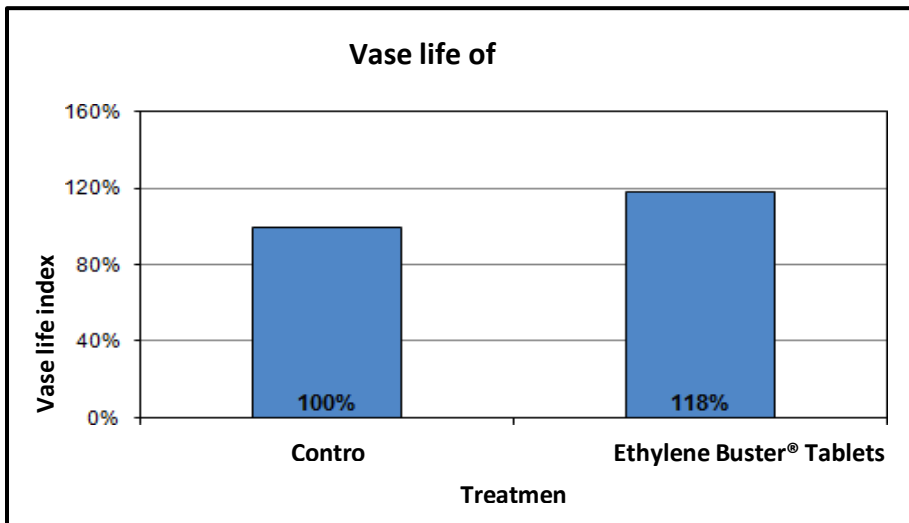




- Suitable for various plants including Cymbidium, Dendrobium, Dianthus, Lilium, Achimenes, Campanula, Ficus Benjamina, Kalanchoe, Phalaenopsis, Schlumbergera, Streptocarpus, and more.
- Contact your sales manager for availability in your state.

Test Results

The following graph shows the effect of Ethylene Buster® Tablets on the vase life of flowers compared to flowers without any ethylene treatment.



Visual Observations:

- **Phalaenopsis & Miltonia:** Better shelf appearance after transport simulation.
- **Dendrobium Nobile:** Improved flower retention and quality after 3-day transport.

Vase life of Dianthus 'Delphi'



Treatment: none
Total vase life: 9 days
Photo taken: day 12



Treatment: Ethylene Buster® Tablets
Total vase life: 12 days
Photo taken: day 12



Post-harvest
treatment

Phalaenopsis

5 days transport simulation – Photo taken day 7 in store.



Control



Ethylene Buster® Tablets

Miltonia

5 days transport simulation – Photo taken day 7 in store.



Control



Ethylene Buster® Tablets

Dendrobium Nobile

3 days transport simulation – Photo taken day 8 in store.



Control



Ethylene Buster® Tablets

Chrysal Ethylene Buster® Tablets provide reliable, residue-free ethylene protection—keeping flowers and plants fresher, longer throughout the floral supply chain.

Chrysal USA, 3063 N.W. 107 Ave., Miami, Florida 33172

T: 305.477.0112 | F: 305.477.1284 | E: info@chrysalusa.com | www.chrysal.com

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Ethylene Buster® – Test Protocol

Curious to see Ethylene Buster® in action? Follow this clear, structured protocol to evaluate its effectiveness.

Background

Ethylene is a plant hormone associated with aging symptoms, including leaf, bud, and flower drop, wilting, and accelerated fruit ripening. Damage from ethylene exposure intensifies with higher temperatures, prolonged exposure, or increased ethylene concentration.

Ethylene sources include:

- **External Ethylene:** Fruits, aging flowers, polluted air, exhaust fumes, and insulation materials in new trucks or buildings.
- **Internal Ethylene:** Produced by plants experiencing stress, such as prolonged darkness, significant temperature fluctuations, or transportation.

Materials Required

- 4 boxes (sealable)
- Ripening fruit (e.g., bananas or tomatoes)
- Plants treated with Ethylene Buster®
- Untreated control plants (for comparison)

Test Procedure

1. **Preparation:**
 - Choose at least 6 uniform plants per treatment group (treated and untreated).
 - Apply Ethylene Buster® according to usage guidelines provided on the product sheet.
 - Saturate soil completely with water and label each plant clearly by treatment group.
2. **Test Setup:**

Box No.	Contents	Treatment
1	Light-tighten Box, no fruit	None (Control)
2	Light-tighten Box, no fruit	Ethylene Buster® Tablet
3	Light-tighten Box, with fruit (3-5 pcs)	None (Control)
4	Light-tighten Box, with fruit (3-5 pcs)	Ethylene Buster® Tablet

3. **Creating Stress Conditions:**
 - **Internal Ethylene Test:**
 - Option A: Place plants in sealed boxes without light at 68°F (20°C) for 7 days.
 - Option B: Subject plants to wide temperature fluctuations: 1 day at 46–50°F (8–10°C), followed by 3 days at 64–68°F (18–20°C).
 - **External Ethylene Test:**
 - Place ripening fruit (bananas or tomatoes, 3–5 pieces) in boxes 3 and 4.



4. During the Test:

- Keep boxes sealed and separated, ideally in different rooms, for approximately 7 days. Do not open the boxes during this period.

5. Post-Test Assessment:

- After 4–7 days, transfer plants to a climate-controlled room (approximately 68°F/20°C and 60% humidity), ensuring equal conditions (light, airflow) for accurate comparison.
- Daily observations: Note flower opening, leaf drop, leaf yellowing, bud loss, and overall shelf life.
- Document plant condition with photographs.

6. Comparative Analysis:

- Evaluate differences between plants treated with Ethylene Buster® and untreated controls.
- Re-water plants as necessary during the observation period.

By following this protocol, you'll accurately assess the protective effects of Ethylene Buster® against ethylene damage.