



Product sheet – Alesco®

General

- Conditioner for ethylene sensitive potted plants, like Campanula, Calathea, Dahlia, Dianthus, Hibiscus, Impatiens, Lobelia, Pansy, Pelargonium, Petunia, Rhipsalidopsis, Rosa, Schlumbergera and Zygocactus.
- For use by the grower.
- Available in 200 ml bottles.

Effects

- Reduces flower petal shatter, bud abortion, leaf yellowing and extends flower longevity.
- Increases retail shelf life up to 3 weeks depending on variety and environmental conditions.

In use with other Chrysal products

- Test results showed in some cases a better shelf life when Alesco® and Chrysal LeafShine & Seal were combined.

Savings

- Highly cost-effective insurance policy to increase shelf life and retail store sell-thru.

Usage

- Dosage: 1 ml per liter water.
- One 200 ml bottle is premeasured for a 50 gallon tank mix (200 liter), which treats roughly 1 acre.
- Spray potted plants until run-off just prior to shipment (1 to 2 days). For optimal results also spray 8 to 14 days prior to shipment.
- Spray on full grown plants that fully cover the ground surface. Avoid excess spray of Alesco® and prevent run-off.
- Any excess spray or leftover solution needs to be collected and the silver recovered by following the procedure on the label. The recovered silver needs to be disposed off as chemical waste.
- Plants should not be placed in direct sunlight whilst being sprayed or before the leaves are dry.
- Dilution can be used up to 3 days.
- We advise small scale test prior to large scale application of the product.

Recommendations

- Store under cool and dark conditions, preferably between 45°F and 75°F.
- Shelf life: 24 months in sealed packaging and stored under the right conditions.
- Do not mix residual solutions with freshly made ones.





Alesco® neutralization

Excess Alesco® solution can be treated to recover residual silver in accordance with Federal, State and local requirements.

Treatment can be accomplished with the neutralizing products supplied with Alesco® following the procedure on the Alesco® label. The deposit containing the silver should be treated and disposed off as chemical waste.

Test results Alesco®:

Pinto™ Premium Rose Bicolor Geranium – Syngenta Flower Trial Results – day 4



Control (no treatment)



Alesco®

Following 2 days of simulated shipping in darkness, untreated plants had significant petal shatter while plants treated with Alesco® had no petal drop.

Pinto™ Premium Rose Bicolor Geranium – Syngenta Flower Trial Results – day 14



Control (no treatment)



Alesco®

1.5 weeks after shipping, untreated plants had petal shatter, leaf yellowing and bud abortion. Alesco® treated plants had intact inflorescences and no flower petal drop – petals just dried on plant.



Maverick™ Scarlet Picotee Geranium – Syngenta Flower Trial Results



Control (no treatment)

Alesco®

Alesco® increased retail shelf life for 3+ weeks, reduced petal shatter, bud abortion and leaf yellowing.

Dekko™ Sky Blue Petunia – Syngenta Flower Trial Results



Control (no treatment)

Alesco®

2 weeks after shipping, untreated plants had aborted all flower buds while Alesco® treated plants continued to flower and were saleable. Alesco® reduced flower meltdown and bud abortion which are entry points for botrytis.

Techno™ Heat Upright Dark Blue Lobelia – Syngenta Flower Trial Results



Control (no treatment)

Alesco®

Hibiscus – day 14



Control (no treatment)



Alesco®

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Campanula 'Anbella Purple' – day 11



Control (no treatment)



Alesco®



Alesco® + Chrysal LeafShine & Seal

Registration

Alesco® is registered in the following states:

<i>Alabama</i>	<i>Indiana</i>	<i>New Mexico</i>	<i>South Dakota</i>
<i>Arizona</i>	<i>Iowa</i>	<i>New York</i>	<i>Tennessee</i>
<i>California</i>	<i>Maine</i>	<i>North Carolina</i>	<i>Texas</i>
<i>Colorado</i>	<i>Maryland</i>	<i>Ohio</i>	<i>Utah</i>
<i>Connecticut</i>	<i>Massachusetts</i>	<i>Oklahoma</i>	<i>Vermont</i>
<i>Delaware</i>	<i>Michigan</i>	<i>Oregon</i>	<i>Virginia</i>
<i>Florida</i>	<i>Minnesota</i>	<i>Pennsylvania</i>	<i>Washington</i>
<i>Georgia</i>	<i>New Hampshire</i>	<i>Rhode Island</i>	<i>Wisconsin</i>
<i>Illinois</i>	<i>New Jersey</i>	<i>South Carolina</i>	

Additional state registration will be added depending on demand. Registration takes 4 – 8 weeks. Please feel free to contact Chrysal USA, www.chrysal.com, for more information.



Alesco® – Test Protocol

Do you want to test the effects of Alesco® for yourself?

With this test protocol we will guide you.

In order to compare, this test should always contain treated and control plants. Select plants that are uniform of stage and development. Use at least 6 plants per treatment.

Place the plants in a room with a stable climate (ideally $\pm 68^{\circ}\text{F}$ and $\pm 60\%$ relative humidity) and make sure that the plants of each treatment are in similar conditions (light, airflow) to be able to make good comparisons.

The plant hormone ethylene stimulates ageing symptoms like leaf, bud and flower drop, flower wilting and fruit ripening on flowers and plants. The plant hormone ethylene causes senescence/abscission in sensitive flowers and plants. More damage effects of ethylene are observed by higher temperatures, higher concentrations of external ethylene and a longer exposure time.

Ethylene can have multiple causes, internal and external.

External ethylene

Sources of external ethylene include fruits and old flowers, polluted air, insulation in new truck and buildings and exhaust fumes.

Internal

Internal ethylene production is enhanced by the plant and flowers in “stress situations”, like darkness for a longer period, transport movements, huge temperature fluctuation even for a few hours etc.

Test procedure:

Test procedure internal and external ethylene:

Requirements of the test:

- 4 boxes;
- Ethylene source like tomatoes or bananas (optional for an ethylene source to get quick results);
- Alesco®;
- Measuring cylinder or pipette;
- Plants.



The following test scheme can be used:

Box no.	Box content	Treatment
1	Box without fruit	None
2	Box without fruit	Alesco® 1ml/L
3	Box with fruit	None
4	Box with fruit	Alesco® 1ml/L

1. Fully saturate the soil with water and number each plant related to a treatment.
2. Prepare the solution in a plastic bottle or measuring cup and shake/stir well before spraying. Dosage: 1 ml Alesco® / L water.
3. Spray the solution on the plants until run-off.
4. Let the plants dry before plants are sleeved or packed into boxes (drying time depends on the humidity, but can take up to 4 hours).
5. For testing with *internal ethylene* we create a "stress situation". In this case:
 - a. Put the plants in a box without light for 7 days at 68°F, without opening the box during the test;
 - b. Another option could be to put the plants in a box and make some huge temperature fluctuation for example one day at 46 – 50°F and three days at 64 – 68°F.
6. For testing the effect of *external ethylene* we put the plants in a box containing ripening fruit like bananas or tomatoes (3 – 5 pieces).
7. Put a control treatment in the box with and without the presence of ripening fruit.
8. Let the plants stay in the box for around 7 days. Do not open the boxes during the test.
9. After 7 days remove the plants out of the boxes and put them in a climate controlled room.
10. Observe the plants every day on flower opening, leaf drop, leaf yellowing, shelf life and bud loss.
11. Compare the results between the untreated control plants and the plants treated with Alesco®.
12. Re-water the plants when necessary.

Calculate use (Optional)

In case there is a need to calculate the use of Alesco® you can calculate the use by logging the difference in used solution (RTU) before and after treatment, divided by the number of plants.

Example: Start	1000 ml
Remaining	660 ml
Used RTU	340 ml per 45 plants -> 7 ml / plant