



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 8, 2019

Ann Beaulieu, Ph.D.
Director, Regulatory Affairs
AgroFresh, Inc.
3 Spring House Innovation Park, Suite 100
Lower Gwynedd, PA 19002

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment to Update
Respirator Language and Company Address
Product Name: EthylBloc
EPA Registration Number: 71297-1
Application Date: October 9, 2018
OPP Decision Number: 547580

Dear Dr. Beaulieu,

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false

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or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Gina Burnett by phone at (703) 605-0513 or via email at burnett.gina@epa.gov.

Sincerely,

A handwritten signature in blue ink that reads "Andrew C. Bryceland". The signature is fluid and cursive, with the first name "Andrew" and last name "Bryceland" clearly legible.

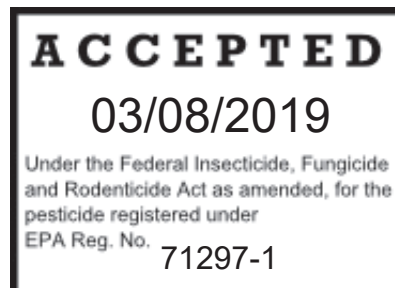
Andrew Bryceland, Team Leader
Biochemical Pesticide Branch
Biopesticides and Pollution
Prevention Division (7511P)
Office of Pesticide Programs

Enclosure

EthylBloc® Technology

EthylBloc® technology is a powder that, when mixed with a Mixing/Buffer solution or water, releases a gas to extend the life and usefulness of many fresh cut flowers, potted flowers, bedding, nursery and foliage plants. Plants are treated with this gas in enclosed areas such as rooms, coolers, greenhouses, truck trailers and shipping boxes/containers. This product is intended for use only on ornamental, non-food crops. Do not use outdoors or in other non-enclosed areas.

Active Ingredient: 1-Methylcyclopropene.....0.14%
Other Ingredients:.....99.86%
Total:.....100.00%



**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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.

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.

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 SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this product (including health concerns, medical emergencies or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

110384/20180261

Net Contents: 1.34 oz. [38g (water soluble packet)], 2.6 oz. [75 g (water soluble packet)], and 3.5 oz. [100 g bottle]

EPA Registration No.: 71297-1
EPA Establishment No.: 707-WA-001

EthylBloc® is a registered trademark of AgroFresh, Inc.

AgroFresh Inc.
510-530 Walnut Street, Suite 1350
Philadelphia, PA 19106
1-866-206-1001

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Avoid breathing vapor. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and mixers of this product must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.
- Protective eyewear (goggles or face shield).
- Rubber gloves.
- As a general precaution when exposed to a gas, for activities in enclosed areas wear a NIOSH approved respirator with an organic vapor cartridge with a combination N, R or P filter NIOSH approval prefix TC-84A; or a NIOSH approved gas mask with organic vapor canister NIOSH approval prefix TC-14G.
- Applicators and handlers must follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in the box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas prior to venting the volatile active ingredient from the treatment area. Ventilation shall continue until after two hours of ventilation using fans or other mechanical ventilating systems or four hours of ventilation using vents, windows or other passive ventilation.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, prior to venting the volatile active ingredient from the treatment area is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- A NIOSH approved respirator with an organic vapor cartridge with a combination N, R or P filter NIOSH approval prefix TC-84A; or a NIOSH approved gas mask with organic vapor canister NIOSH approval prefix TC-14G.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Do not enter enclosed areas containing treated cut flowers until the enclosed area has been vented unless wearing the appropriate PPE. Ventilation shall continue until after two hours of ventilation using fans or other mechanical ventilating systems or four hours of ventilation using vents, windows or other passive ventilation.

PPE required for early entry into enclosed areas prior to venting is:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- A NIOSH approved respirator with an organic vapor cartridge with a combination N, R or P filter NIOSH approval prefix TC-84A; or a NIOSH approved gas mask with organic vapor canister NIOSH approval prefix TC-14G.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in original packaging in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. For bottle, Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store insate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

EthylBloc® can extend the life and usefulness of many fresh cut flowers and potted flowers, bedding, nursery and foliage plants. It works by inhibiting the negative effects of ethylene and thus prevents or reduces premature flower death, leaf and/or flower fall, and leaf yellowing.

EthylBloc® is specifically designed to be used by all levels of the floral and nursery industries, including growers, shippers, wholesalers, bouquet manufacturers, mail-order houses and retailers (such as florists, garden centers, nurseries and mass-market outlets). EthylBloc® is very easy to use with almost no labor costs.

EthylBloc® can be used just prior to harvest, immediately after harvest, just prior to shipment, upon arrival from the supplier, and/or just prior to sale. It comes with two scoops for easy measuring and the proper Mixing/Buffer Solution. [Optional: EthylBloc® is in a water soluble package for easy use with the proper Buffer (mixing) solution.] The Mixing/Buffer Solution is used to facilitate gas release. [Optional] Users can substitute tap water for the Mixing/Buffer Solution but the gas release will not be as efficient. Contact the manufacturer for specific directions.] EthylBloc® is more effective under warm temperature conditions, 55° to 75°F, (13° to 24° C). Longer treatment times are required for plants held under temperatures below 55°F, (13° C).

Flowers And Plants

EthylBloc® treatment benefits many flowers and plants such as:

Achillea, Aconitum, Agapanthus, Alchemilla, Allium, Alstroemeria, Alyssum, Aphelandra, Aquilegia, Asclepias, Astrantia, Asparagus Fern, Azalea, Begonia, Bouvardia, Brassia (*Schefflera*), Brodiaea (*Triteleia*), Calathea, Campanula, Carnation, Celosia, Centaurea, Chamaedorea, Chelone, Coleus, Cordyline, Cymbidium, Crocosmia (*Montbretia*), Daucus (Queen Annes Lace), Delphinium, Dendrobium, Dianthus, Dicentra, Dizygotheca, Doronicum, Echium, Eremurus, Eustoma (*Lisianthus*), Ficus, Freesia, Fuchsia, Geranium, Gladiolus, Godetia, Gypsophila, Hibiscus, Ilex (Holly), Impatiens, Ixia, Kalanchoe, Kniphofia, Lavatera, Lily, Lysimachia, Miniature Carnation, Monkshood, Pelargonium, Petunia, Philodendron, Phlox, Physostegia, Poinsettia, Radermachera, Rose, Rudbeckia, Salvia, Saponaria, Scabiosa, Silene, Snapdragon, Solidaster, Stock, Streptocarpus, Sweet William, Trachelium, Trollius, Veronica, Wax Flower, and Zygocactus.

To realize maximum benefits, treat plants whether or not they may have been previously treated with EthylBloc® or another anti-ethylene product. Shipments already treated with EthylBloc® do not have to be retreated, however, retreating is not harmful and can even be beneficial. Some species that would likely benefit from additional applications include those with more than one flower per stem (i.e. snapdragons, delphiniums, miniature carnations and alstroemeria) and flowers at different stages of development on the same plant (i.e. geraniums, impatiens, and azaleas).

TREATMENT INSTRUCTIONS

1. Calculate the treatment volume by measuring the length, width and height of the treatment area in feet or meters. Multiply these three numbers together to obtain the volume of the room/area in cubic feet or cubic meters. For example, if a room is 4 feet wide, 5 feet long and 5 feet high, the volume equals 100 cubic feet.
2. Wear all Personal Protective Equipment (PPE) required under Precautionary Statements.
3. Use a plastic mixing container large enough to hold the EthylBloc® and Mixing/Buffer Solution. A plastic pail works well for larger applications, a plastic bowl or similar container for smaller applications.
4. First add Mixing/Buffer Solution to the mixing container. Then add the EthylBloc® powder. The amounts of EthylBloc® and Mixing/Buffer Solution are specified in the tables/boxes below. [or {For Water Soluble Packets} First add Mixing/Buffer Solution to the mixing container. Then add the water soluble packet of EthylBloc® to the mixing container, making sure the water soluble packet is covered. The amounts of EthylBloc® and Mixing/Buffer Solution are specified in the tables/boxes below.]
5. Following the addition of EthylBloc® to the Mixing/Buffer Solution, leave the treatment area immediately. Make sure the area is sufficiently sealed. See following application sections for details.
6. POSTING: Signs should be posted on all potential entry points during EthylBloc® treatment (for at least four hours or as otherwise recommended in the Directions for Use). Signs should state "CAUTION. Do not enter area. EthylBloc® treatment underway." Posting is suggested as a means of ensuring optimal effectiveness of EthylBloc®.
7. After the treatment period ends (see below tables/boxes for specified treatment periods), ventilate treated areas with outside air before reentry.
8. Remaining treatment solution can be disposed of on site or at an approved waste disposal facility.

SPECIFIC TREATMENT PERIODS

TREATMENT CONDITIONS: 55 – 75 °F, 4 to 8 hours

TREATMENT RATE: 1.5 gram of EthylBloc® plus 1 fl oz Mixing Solution per 100 cubic feet

Amount of EthylBloc®	Amount of Mixing Solution	Cubic Feet to Treat
1 White Scoop	1 tsp	13
1 Green Scoop	2 Tbsp	100
38 g Water Soluble Packet	25 fl oz <u>or</u> 3 cups plus 2 Tbsp	2500
75 g Water Soluble Packet	50 fl oz <u>or</u> 6 cups plus 4 Tbsp	5000

METRIC EQUIVALENT

Amount of EthylBloc®	Amount of Mixing Solution	Cubic Meters to Treat
1 White Scoop	5 ml	0.4
1 Green Scoop	30 ml	3
38 g Water Soluble Packet	750 ml	75
75 g Water Soluble Packet	1500 ml	150

TREATMENT CONDITIONS: 55 to 75 °F, minimum 10 hours

TREATMENT RATE: 1.5 gram of EthylBloc® plus 1 fl oz Mixing Solution per 200 cubic feet

Amount of EthylBloc®	Amount of Mixing Solution	Cubic Feet to Treat
1 White Scoop	1 tsp	26
1 Green Scoop	2 Tbsp	200
38 g Water Soluble Packet	25 fl oz <u>or</u> 3 cups plus 2 Tbsp	5000
75 g Water Soluble Packet	50 fl oz <u>or</u> 6 cups plus 4 Tbsp	10000

METRIC EQUIVALENT

Amount of EthylBloc®	Amount of Mixing Solution	Cubic Meters to Treat
1 White Scoop	5 ml	0.8
1 Green Scoop	30 ml	6
38 g Water Soluble Packet	750 ml	150
75 g Water Soluble Packet	1500 ml	300

TREATMENT CONDITIONS: 35 to 55 °F, minimum 10 hours

TREATMENT RATE: 1.5 gram of EthylBloc® plus 1.5 fl oz Mixing Solution per 100 cubic feet

Amount of EthylBloc®	Amount of Mixing Solution	Cubic Feet to Treat
1 White Scoop	1.5 tsp	13
1 Green Scoop	3 Tbsp	100
38 g Water Soluble Packet	37 fl oz <u>or</u> 4 2/3 cups	2500
75 g Water Soluble Packet	75 fl oz <u>or</u> 9 1/3 cups	5000

METRIC EQUIVALENT

Amount of EthylBloc®	Amount of Mixing Solution	Cubic Meters to Treat
1 White Scoop	7 ml	0.4
1 Green Scoop	45 ml	3
38 g Water Soluble Packet	1125 ml	75
75 g Water Soluble Packet	2250 ml	150

Measurements:

WHITE SCOOP = 0.2 grams EthylBloc® powder

GREEN SCOOP = 1.5 grams EthylBloc® powder

1 teaspoon = 1 tsp = 5 ml

1 Tablespoon = 1 Tbsp = 3 tsp = ½ fl oz

1 fl oz = 2 Tbsp = 30 ml

1 cup = 8 fl oz = 240 ml

38 gram Water Soluble Packet will treat a 20 ft truck container

75 gram Water Soluble Packet will treat a 40 ft truck container

APPLICATION IN GREENHOUSES PRIOR TO HARVEST

Fresh cut flowers and bedding, potted flowering, nursery and foliage plants can be treated in the greenhouse just prior to being harvested.

1. The greenhouse must be tightly constructed. Plastic covered houses (especially “double-poly”) are generally tighter than fiberglass or glass covered ones.
2. Sections of greenhouses can be enclosed with plastic to make the treatment area smaller, as long as it is sealed sufficiently to prevent the gas from escaping. Excessive leakage reduces effectiveness of EthylBloc®.
3. Make sure all greenhouse vents are closed. Night treatment is recommended mainly because vent closing is more realistic and treatment times can be longer.
4. Any internal air circulation system (that does not bring in outside air) should remain on during treatment to help distribute the gas.
5. All greenhouse treatments should be done at temperatures greater than 55°F (13° C).
6. When calculating treatment volumes, use 2 of the height measured at the ridge/peak for the height measurement. If a greenhouse is 25 feet wide, 100 feet long and 10 feet high, the approximate volume equals $25 \times 100 \times 10/2 = 12,500$ cubic feet.
7. Follow steps under Treatment Instructions.

APPLICATION IN ENCLOSED AREAS SUCH AS: HOLDING/STORAGE ROOMS, COOLERS, AND TRUCK TRAILERS

Plants being held in enclosed areas can be easily treated with EthylBloc®. For example, non-boxed sleeved potted plants and cut flowers (held dry or in solution), or boxed plants and cut flowers with the lids and/or precooling vents completely open and directly exposed to the surrounding atmosphere can be treated. Bedding or potted plants on movable racks are also easily treated.

Typical treatment areas
<ul style="list-style-type: none"><input type="checkbox"/> Retail and wholesale florist coolers including walk-in, storage and/or walk-in/storage combinations;<input type="checkbox"/> Delivery trucks or vans, truck trailers, inter-modal containers, regardless of their size/volume;<input type="checkbox"/> Any room in a building that can be isolated, sealed and aerated/vented to the outside after treatment.

1. Treatment areas should be checked for gas leakage. Excessive leakage reduces effectiveness of EthylBloc®.
2. If needed, use plastic liners, tape and/or other products and procedures to make enclosed areas more gas/air tight
3. Any internal air circulation system (that does not bring in outside air) should remain on during treatment to help distribute the gas.
4. Temperatures should be between 35° and 75° F (13° and 24° C).
5. Follow steps under Treatment Instructions.

APPLICATION IN AREAS SPECIFICALLY BUILT FOR ETHYLBLOC® TREATMENT

General EthylBloc® Treatment Chamber. It might be appropriate to construct an area to be used solely for EthylBloc® treatment. Constructing such specific EthylBloc® treatment areas has proven to be an effective way of using EthylBloc®. This maximizes EthylBloc® effectiveness and reduces costs by requiring less product to treat a given number of plant units.

While this treatment area could be built using a number of gas impermeable materials, 4.0 to 6.0 mil polyethylene sheeting works well. Just make sure the unit seals properly.

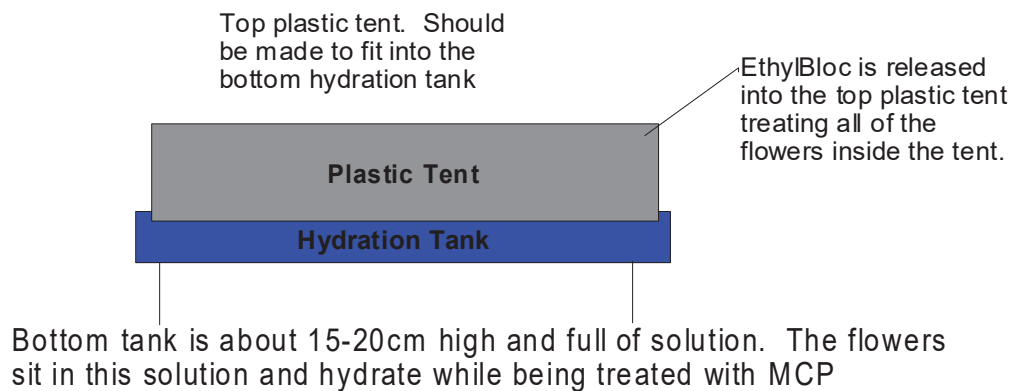
One way to help ensure a good seal where the plastic comes in contact with the flooring is to use hydration solution. The treatment unit base is submerged in a trough of hydration solution a few inches deep thus making a good seal where

gas cannot escape.

To use such a treatment area, follow the treatment instructions adjusting for treatment volume and temperatures.

Cut Flower Hydration EthylBloc® Treatment Chamber. The top of the chamber can be made of 4.0 to 6.0 mil polyethylene sheeting and a wooden frame, or a single plastic piece that can fit into the bottom hydration tank, or something similar. The bottom tank can be any size tub that is capable of holding hydration solution and flowers. See drawing below.

Figure 1



[Optional text for similar text above in box] Bottom tank is about 6 to 8 inches (15-20 cm) high and full of hydration solution. The flowers sit in this solution and hydrate while being treated with EthylBloc®.]

Place the flowers in bunches or in buckets in the bottom tank. Place the top plastic tent over the bottom holding tank. The tent's bottom edges must be able to be submerged into the hydration solution in the bottom holding tank to insure a seal. Follow Treatment Instructions making sure the EthylBloc® mixture remains separate from the hydration solution throughout the treatment.

WARRANTY AgroFresh, Inc, warrants that this material conforms to the chemical description on the label. AgroFresh, Inc, neither makes nor authorizes any agent or representative to make any other warranty of fitness or of merchantability, guarantee or representation, express or implied, concerning this material. The maximum liability for breach of this warranty shall not exceed the purchase price of this product. AgroFresh, Inc's maximum liability for breach of this warranty shall not exceed the purchase price of the product. Buyer and user acknowledge and assume all risks and liabilities resulting from the handling, storage and use of this material, whether or not in accordance with directions.