



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division (7511P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

88148-2

Date of Issuance:

4/1/2015

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Ethylene

Name and Address of Registrant (include ZIP Code):

Matheson Tri-Gas, Inc.
150 Allen Road, Suite 302
Basking Ridge, NJ 07920

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
2. Make the following labeling change before you release this product for shipment:
Revise the EPA Registration Number to read, "EPA Reg. No. 88148-2."

Signature of Approving Official:

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

Date:

4/1/2015

3. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

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 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 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. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 3/3/15.

If you have any questions, please contact Chris Pfeifer of my team by phone at 703-308-0031 or via email at pfeifer.chris@epa.gov.

Sincerely,



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

Enclosure

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Exposure to liquefied or pressurized gas MAY CAUSE: FROSTBITE, ANESTHETIC EFFECTS, DROWSINESS OR DIZZINESS. MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION. Harmful if inhaled or absorbed through skin. Causes substantial but temporary eye injury. DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. AVOID BREATHING GAS (VAPOR).
 Wear the following Personal Protective Equipment (PPE) while handling cylinders or any application equipment under pressure:

- Long sleeve shirt, long pants,
- Boots,
- Goggles,
- Chemical resistant gloves.

Do not enter unventilated treatment areas unless wearing a respirator approved by NIOSH/MSHA. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PHYSICAL OR CHEMICAL HAZARDS
 EXTREMELY FLAMMABLE LIQUEFIED GAS. CONTAINS GAS UNDER PRESSURE. MAY FORM EXPLOSIVE MIXTURES WITH AIR. Keep away from heat, open flames, sparks, and hot surfaces. No smoking. Eliminate all ignition sources if safe to do so. Leaking gas fire: do not extinguish unless leak can be stopped safely. Do not puncture or incinerate container. To avoid bursting, do not expose container to temperatures above 125 °F (52 °C). Use equipment rated for cylinder pressure.

STORAGE AND DISPOSAL

STORAGE: Store and use only outdoors or in a well-ventilated place. Protect from sunlight when ambient temperature exceeds 52 °C/125 °F. Never put cylinder into unventilated areas of passenger vehicles. Container temperature should not exceed 52 °/125 °F. Isolate cylinders from combustibles or oxidizing materials. Outside or detached storage is preferred. Store cylinders in an upright position and firmly secured. Close valve tightly and replace cylinder cap when not in use and when empty. Use a back flow preventive device in the piping. Do not open valve until connected to equipment prepared for use. Do not handle until all safety precautions have been read and understood.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. With the valve closed and the cylinder cap in place, return all unused or residual product to the supplier for proper disposal.
CONTAINER DISPOSAL: Return empty cylinder to the supplier for reuse.

DO NOT REMOVE THIS LABEL
115591 (10/13)

FRUIT RIPENING

ETHYLENE

UN1962



C₂H₄

CAS No. 74-85-1



DANGER
 KEEP OUT OF REACH OF CHILDREN

PLANT GROWTH REGULATOR

ETHYLENE 99.97%

OTHER INGREDIENTS 0.03%

TOTAL 100.0%

THIS CYLINDER CONTAINS (CIRCLE ONE):

0.3, 3.0, 4.5, 11, 30, 37, 308 LBS. OF PRODUCT

FIRST AID

- Remove person to fresh air and keep comfortable for breathing.
- Call POISON CONTROL CENTER or doctor/physician if you feel unwell.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Take off contaminated clothing immediately.
- Thaw frosted parts and rinse skin immediately with lukewarm water for 15-20 minutes. Do not rub affected area.
- Get immediate medical advice/attention.
- Hold eye open and rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do so. Continue rinsing.
- Call a poison control center or doctor for treatment advice.

Hotline Number: Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For non-emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 (NPIC Web site: www.npic.orst.edu)

EPA REG. NO. 88148-2

EPA EST NO. 88148-PA-001



MAIHESON
 ask... The Gas Professionals
MATHESON, INC.
 150 ALLEN ROAD • BASKING RIDGE, NJ 07920
 1-800-416-2505

ACCEPTED
 04/01/2015
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 88148-2

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Use only in accordance with this label and the **SAFETY DATA SHEET**. Close valve tightly and replace cylinder cap when not in use and when empty. Use a back flow preventive device in the piping. Do not open valve until connected to equipment prepared for use.

ETHYLENE FOR RIPENING AND DEGREENING

The produce for which ethylene has been used as a ripening or degreening agent are listed below along with the optimum concentrations of ethylene required.

PRODUCE CONCENTRATION OF ETHYLENE (PPM)

Banana	100-150
Citrus Fruit (Orange, Grapefruit)	1-10
Honeydew Melon	100-150
Avocado	10-100
Pear	10-100
Kiwi Fruit	10-100
Mango	100-150
Stone Fruit (Nectarine, Peach, Plum)	10-100
Tomato	100-150

Ethylene for fruit ripening is best used in commercially available ripening rooms. These rooms are usually gas tight, have systems for controlling humidity and concentrations of ethylene and carbon dioxide, and have equipment to control product temperature. The optimum temperature and duration of treatment vary slightly for each produce but are generally between 65 and 80 °F and 24 to 48 hours. In addition, maintain the relative humidity between 85 and 95%.

The following formula is an example of how to determine the volume of gas required for a particular ripening room.

Size of room in cubic feet x

$$\frac{\text{Desired ppm}}{1,000,000} =$$

cubic feet of gas required

A room having a volume of 1,000 cubic feet where a concentration of 100 ppm is desired would require 0.1 cubic foot of ethylene.

Measure by volume the amount of gas discharged from the cylinder by using a flow meter to measure the flow rate (in cubic feet/hour).

ETHYLENE FOR SPROUT INHIBITION AND SUPPRESSION IN POTATOES*

For optimum sprout inhibition and suppression in potatoes, use 0.1 to 10 ppm of ethylene with a flow rate ranging from 200 to 600 mL/min depending on the size of the storage facility. Ethylene for sprout inhibition and suppression in potatoes is best used with commercially available ethylene management devices.

Ensure potato storage is adequately ventilated to prevent carbon dioxide accumulation. Refer to the equipment manufacturer's treatment guidelines for additional information. *Use in CA is restricted to Russett Burbank potatoes only at 4ppm.

Batch code: _____