

Yellow COPY



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number: 28472-9
Date of Issuance:

Terms of Issuance: Unconditional

Name of Pesticide Product:
Ethylene

NOTICE OF PESTICIDE:
 Registration
 X Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Air Products and Chemicals, Inc.
Gases Environmental
7201 Hamilton Blvd.
Allentown, PA 18195

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration 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/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his 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 this 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.

Based on your response to the Reregistration Eligibility Document(s), EPA has reregistered the product listed above. Enclosed is a copy of your label stamped "Accepted." This action is taken under the authority of section 4(g)(2)(C) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

Signature of Approving Official

Date:

ACCEPTED
with COMMENTS
In EPA Letter Dated:

10/1/72

and the Federal Register
file, and the date
ended. The
and make EPA aware.

28472-9

BEST AVAILABLE COPY

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER

Liquefied or pressured gas can cause frost burns. Do not get in eyes or on skin. Wear long sleeve shirt, long pants, boots, goggles and chemical resistant gloves while handling cylinders or any application equipment under pressure. Harmful if inhaled. Avoid breathing vapors. Do not enter unventilated treatment areas unless wearing a respirator approved by NIOSH/MSHA.

May cause rapid suffocation.
May cause anesthetic effects.
May cause frostbite.

PHYSICAL OR CHEMICAL HAZARDS

EXTREMELY FLAMMABLE. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 125° F (52° C) may cause bursting. Use equipment rated for cylinder pressure. **CAN FORM EXPLOSIVE MIXTURES WITH AIR.**

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 Air Products' MATERIAL SAFETY DATA SHEET. Close valve tightly and replace cylinder cap when not in use and when empty.

STORAGE AND DISPOSAL

STORAGE: Store in a cool, well ventilated area with valve closed and cylinder cap in place. Isolate cylinders from combustible or oxidizing materials. Outside or detached storage is preferred. Store cylinders in an upright position and firmly secured. In case of product leakage call the Air Products emergency number:

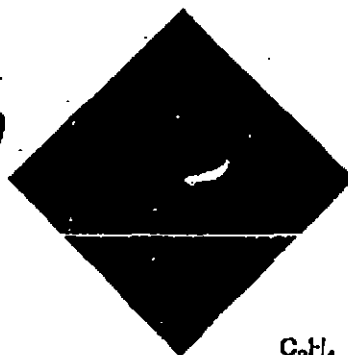
(800) 523-9374 Continental U.S.
(610) 481-7711 outside U.S.

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

DE-01-LABE 4100 (4/84)

ETHYLENE, COMPRESSED

UN1962



CAS No. 74-85-1

C₂H₄

PLANT GROWTH REGULATOR

ETHYLENE 99.5%

INERT INGREDIENTS 0.5%

TOTAL 100.0%

THIS CYLINDER CONTAINS

(CYLINDER ONE) 0.2, 4.5, 11, 30, 34 LBS.

OF PRODUCT.

KEEP OUT OF REACH OF CHILDREN
DANGER

STATEMENT OF PRACTICAL TREATMENT

IF INHALED: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

IF ON SKIN: Contact with ethylene may cause frostbite. Flush with plenty of soap and water. Get medical attention.

IF IN EYES: Flush with plenty of water. Call a physician.
See side panel for additional precautionary statements.

DO NOT REMOVE THIS LABEL

EPA REG. NO. 28472-9
EPA EST. NO. 28472-FL-001

AIR PRODUCTS AND CHEMICALS, INC.
ALLENTOWN, PA 18195-1501

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. Concentrations in excess of those recommended may result in discoloration of the produce.

PRODUCE	CONCENTRATION OF ETHYLENE	PURPOSE
Banana	1,000 ppm	Initiate degreening and ripening
Grapefruit	1000 ppm	Initiate degreening
Honeydew Melon	1000 ppm	Initiate degreening
Lemon	1000 ppm	Initiate degreening
Orange	1000 ppm	Initiate degreening
Pear (Bartlett, Bosc)	1000 ppm	Initiate degreening and ripening
Persimmon	1000 ppm	Initiate degreening, reduce astringency, soften
Tangerine	1000 ppm	Initiate degreening
Tomato	200 ppm	Initiate degreening and ripening

Ethylene for fruit ripening should only be used with commercially available ripening rooms. The optimum temperature and duration of treatment may vary slightly for each produce but are generally between 85 to 80° F and 24 to 48 hours. In addition, the relative humidity should be maintained between 80 and 90%.

In order to determine the volume of gas required for a particular ripening room, the following formula may be used:

$$\frac{\text{Size of room in cubic feet} \times \text{Desired ppm}}{1,000,000} = \text{cubic feet of gas required.}$$

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

The amount of gas discharged from the cylinder may be measured by volume, in which a flow meter is used to measure flow rate (in cubic feet/hour) or by weight, in which the volume of gas is converted to weight (1 lb. ethylene = 13 cubic feet) and the cylinder is allowed to slowly discharge until the decrease in cylinder weight is reached.

Using either method the rate of cylinder discharge should not exceed 0.5 cubic feet/hour (0.04 lbs./hour).