and other , CON from heal, sparks, fire "Snition sources. Use and radiaters and other erature below 130°F. ACTIVE INGREDIENT 100% lessure reducing for emylene service Aces. Store CYLAY . eway hear sources DANGER: FLAMMABLE HIGH-PRESSURE GAS AND LIQUID WHEN MIXED WITH AR, FM U.S.A WILL EXPLODE IF IGNITED. FOR TECHNICAL USE ON ACCEPTED Dec. 22, 1971 DÖ THIS NOT **BOOK-**DETACH LET UNDER THE STADIAL TASECTICIDE FUNGROUPS AND ADDERICE DE ACT DR ECONDELIC POISCH SETERICH DANGER TO ATTACEED COMMENTS. **EXTREMELY FLAMMABLE**

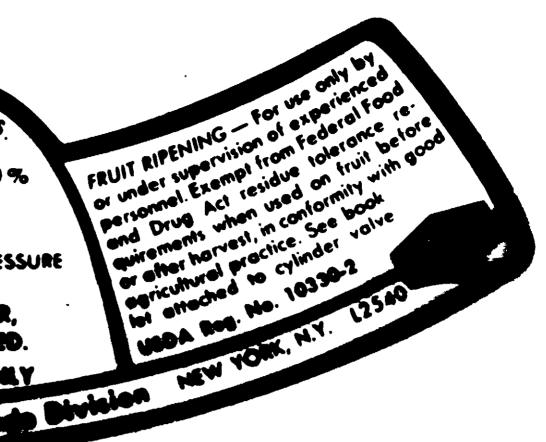
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ETHYLENE is Extremely Flammable when Mixed With Air and Will Explode if Ignited.

Active Ingredient Ethylene 100% by Weight

Flammable in air between 2.7% to 36% by volume.

RECOMMENDED DOSAGE: To be used in air in a tightly enclosed treatment room. Do not degreen until time to ready the fruit for market.					
Mature Fruit	PPM	Temp.	RH	Use	Time of Exposure
BANANA	1000	65- 70°F	90%	To initiate degreening and ripening	3-4 Days g
CITRUS: Grapefruit	1000	(1) 80:	90%	To initiate degreening.	21/2- 5 Days



DO NOT DETACH THIS BOOKLET

DANGER

EXTREMELY FLAMMABLE

Keep this cylinder away from heat, flame and fires and spark producing devices. STORE IN WELL VENTILATED COOL PLACE.

The Contents of this Cylinder must be Used in Accordance with the Directions in This Booklet



ADDAVIMATE DECEMBE WHEN PILLA

GENERAL PRECAUTIONS DANGER: EXTREMELY FLAMMABLE

- DO NOT USE OPEN FLAME HEATERS, EX-POSED ELEMENT-ELECTRIC HEATERS OR ANY SPARK PRODUCING ELECTRICAL EQUIPMENT SUCH AS ELECTRIC MOTORS WITH EXPOSED BRUSHES. USE FANS WITH AN INDUCTION TYPE OR SEALED-IN MOTOR.
- 2. Post DANGER: "EXTREMELY FLAMMABLE" and "NO SMOKING" Signs inside the sweating room, on the outside of all doors, and in the vicinity of the cylinders and measuring apparatus.
- 3. Cylinders should be stored in a well-ventilated area. When discharged from a cylinder in a con-fined space, ethylene gas replaces the air and may be harmful. Do not breathe varors.
- 4. Use only metal connections and piping capable of withstanding a working pressure of 2,000 pounds per square inch.
- 5. CYLINDERS MUST BE SECURED IN AN UP-RIGHT POSITION WHEN DISCHARGING, and must be grounded before discharging in order to avoid static sparks.
- 6. CYLINDER VALVE OUTLET CONNECTION IS CGA 350 (LEFT-HAND THREAD); USE REGULA-TOR ESPECIALLY MADE FOR E. YLENE GAS.
- 7. Comply with all insurance requirements, laws, ordinances and regulations.

DIRECTIONS FOR USE DANGER: EXTREMELY FLAMMABLE AMOUNT OF GAS NEEDED

Each application of ethylene should consist of not more than one cubic foot of ethylene to 1,000 cubic feet of room space. Use of an additional quantity of cthylene will not speed up the coloring process. An excess quantity of ethylene may result in an ac-cumulation of a flammable and explosive air-gas mixture which should be avoided.

Before starting the treatment, it is necessary to de-termine the cubic content of the room by multiply-ing the length by the width by the height. No allow-ance is made for the space occupied by the fruit, For instance, a room 20 feet long, 15 feet wide, and 10 feet high contains 3,000 cubic feet and requires a maximum of three cubic feet of ethylene, per treatment.

THE PROPER TEMPERATURE

Keep the temperature between 65°F. and 90°F. de-pending on the type and condition of the fruit. If the room becomes cooler than 65°F, the coloring process is slow. At temperatures over 90°F. bacterial growth and rotting may be accelerated.

When the room must be heated, a hot water of steam pipe system is the most suitable. NEVER USE AN OPEN FLAME. The heating may be done with a gas or electric heater which has been ex-amined and LISTED FOR THIS APPLICATION by Underwriters' Laboratories, Incorporated. No other heater should be used in the room.

APPLICATION

Ventilate the room before each application of ethylene, particularly if the room is well sealed. Fruits "breathe" and, like human beings, need plenty of oxygen. The air can be changed by opening the doors and windows for about half an hour before each treatment is made. In specially constructed or large sweating rooms, a ventilating fan should be provided.

used.

All electrical equipment, including lights, fan mo-tors, switches, etc. should comply with National Electric Code for Class I, Group D equipment and Installations.

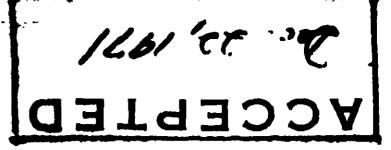
Ethylene is introduced into the room in accurately measured quantities at regular intervals of time. The gas should be conducted from the cylinder through a regulator with a flowmeter calibrated for measuring flow in cubic feet per minute of ethylene gas. The gas then flows to the treating room through metal pipes or tubing.

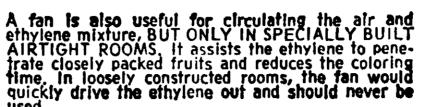
The regulator should be operated as follows:

- by turning it to the left all the way.
- Into the ripening room. lowing rates of flow are recommended: For Rooms up to 5,000 cu. ft. in volume

% cu. ft. per min. For Rooms between 5,000 and 10,000 cu. ft. 1 cu, ff. per min.

THOROUGH VENTILATION ESSENTIAL: It is customary to treat the fruits twice each day, usually in the morning and at night. In many cases, better re-sults are obtained from four treatments per day at 6-hour intervals.







1. Connect the regulator to the cylinder valve. (Note the threads on the valve are left-hand.) See that the union nut is drawn up tight, to prevent any leak at this point. Soapy water applied to this joint will indicate leaks by expanding bubbles. NEVER USE A MATCH OR OPEN FLAME TU CHECK FOR FLAMMABLE GAS LEAKS.

2. Attach a flexible metal hose from the outlet con-nection of the regulator to the piping which leads to the building or vault containing the fruit. THIS LEAD-IN PIPE MUST BE GROUNDED.

3. See that the handwheel on the regulator is backed up by furning it to the left so that it is loose. Open the valve at the top of the cylinder SLOWLY

4. Assume the sweating room is 20 feet long, 15 feet wide, and 10 feet high, or 3,000 cu. ft. In volume. This would usually require approximately three (3) cu. ft. of ethylene. Time the gas flow by holding a watch in one hand, and turn the pressure adjusting screw clockwise until the needle starts to move. Start the timing from this point, and continue to turn the pressure adjusting screw in, until the pointer shows ½ cu. ft. of ethylene is flowing from the cylinder each minute. Allow is flowing from the cylinder each minute. Allow the ethylene to flow for six minutes (six minutes times 1/2 cu. ft. per minute equals three cu. ft.) and then reverse the handwheel counterclockwise until it is loose. THEN CLOSE THE CYLINDER VALVE TIGHTLY.

5. Detach the hose from the regulator so that it becomes impossible for any more ethylene to get

A low rate of flow, rather than a high rate, is desirable as the longer time required will assure greater accuracy in measuring the gas, The fol-

For Rooms over 10,000 cu. ft. 2 to 21/2 cu. ft. per min.

