

YM-90

Reg # 59657-2

172

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
(and Domestic Animals)**

DANGER

Harmful if inhaled. Avoid breathing gas. Inhalation may cause rapid suffocation due to oxygen deficiency. Liquefied or pressurized gas can cause frost burns. Do not get in eyes or on skin. Wear long-sleeved shirt, long pants, boots, goggles and chemical-resistant gloves while handling cylinders or any application equipment under pressure. Do not enter unventilated treatment areas unless wearing a respirator approved by NIOSH/MSHA for this use.

**PHYSICAL OR CHEMICAL HAZARDS
EXTREMELY FLAMMABLE
COMPRESSED GAS**

Extremely flammable. Contents under pressure. Keep away from fire, sparks and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F (55°C) may cause bursting. Gas will explode if ignited when mixed with air between 2.7% to 36% by volume.

DIRECTIONS FOR USE

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

STORAGE AND DISPOSAL

STORAGE - Keep cylinder out of direct sunlight and away from heat. Close valve when not in use. If container is damaged and leaking, move to shaded area outside of building.

PESTICIDE DISPOSAL - Do not contaminate water, food or feed by storage or disposal. Excess gas that cannot be held in proper storage for later use should be returned to supplier.

CONTAINER DISPOSAL - Return empty cylinder for reuse.

CYLINDER RETURN AND REFILLING

Close the cylinder valve tightly when cylinder is empty. Do not dispose of cylinder in any manner.

Cylinders must be returned to the point of purchase for credit. All cylinders, valves and caps remain the property of the manufacturer. Federal regulations prohibit the refilling of cylinders without written consent of the manufacturer.

PRODUCT INFORMATION

COLOR RIPE® contains ethylene, a ripening stimulant for tobacco. Ethylene stimulates enzymatic changes in the raw product, catalyzing the conversion of starches to sugar and the degradation of chlorophyll. These changes allow the normal ripening and degreening processes to proceed at an accelerated rate. COLOR RIPE® is used by the tobacco industry to control the curing process of the product for market for high quality and good appearance.

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COLOR RIPE®

**DEGREENING AND RIPENING
TOBACCO CURING AGENT**

For use in accelerating the ripening of flue-cured tobacco.

ACTIVE INGREDIENTS*

ETHYLENE 99.9%w/w
INERT INGREDIENTS (Related Compounds) 0.1%w/w
TOTAL 100.0%w/w

(This product contains 13.8 ft.³/lb. of ETHYLENE AT 70°F (21°C) & 1 atm)

KEEP OUT OF REACH OF CHILDREN

DANGER

STATEMENTS OF PRACTICAL TREATMENT

IF IN EYES: Flush with plenty of water. Call a physician.
IF ON SKIN: Flush with plenty of soap and water. Get medical attention.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Manufactured by
PERMVIRO SYSTEMS, INC.
9/21/95
TROTTER'S CREEK
INDUSTRIAL PARK
3520 TROTTER DRIVE
ALPHARETTA, GA 30201
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended for the pesticide
EPA Establishment No. 59657-GA-0
EPA Registration No. 59657-2

Net Contents: 10 lbs. (4.53 kg.)
30 lbs. (13.59 kg.)
38 lbs. (17.21 kg.)

WARRANTY AND LIMITATION OF DAMAGES

PERMVIRO SYSTEMS, INC. warrants that this material conforms to the chemical description and guaranteed limits of active ingredients as stated on this label.

PERMVIRO SYSTEMS, INC. makes no other express or implied warranty, including any other express or implied warranty of FITNESS or MERCHANTABILITY of any kind.

PERMVIRO SYSTEMS, INC.'s maximum liability for breach of this warranty shall not exceed the purchase price of this product.

Unless State law provides otherwise, in no event shall PERMVIRO SYSTEMS be liable for indirect or consequential damages when this product is used or handled contrary to label instructions. This warranty shall not be changed by oral or written agreement unless signed by a duly authorized officer of PERMVIRO SYSTEMS, INC.

Buyer assumes all risks of use or handling of this material when such use or handling is contrary to label instructions.

APPLICATION RATES

COLOR RIPE® ethylene can be used to degreen and ripen tobacco at the application rates and under the conditions shown below:

CROP TREATED	USE	ETHYLENE PPM	TEMP. °F	TREATMENT TIME
Tobacco Wet-Season Grown Dry-Season Grown	Degreening/ Curing	Up to 300	Normal- Coloring Range	APX. 24 HRS. 12-24 HRS. 24-48 HRS.

METHOD OF APPLICATION

COLOR RIPE® ethylene must be dispensed through a critical orifice regulator supplied by PERMVIRO SYSTEMS, INC., or an equivalent regulator with a maximum application rate of no more than one (1) pound (.453 kg.) (13.8 cubic feet) (.3864 cubic meters) of ethylene in 24 hours.

COLOR RIPE® ethylene is designed to be used in tobacco curing barns. Amounts in excess of the upper recommended rates will not hasten the ripening process and may discolor the treated product. Amounts as low as 2 ppm may initiate the ripening process in certain instances. The air concentrations required for degreening/ripening are well below flammable or explosive limits. Using an excess amount of ethylene may create an explosion hazard.

The use of 1 cubic foot (.028 cubic meters) of COLOR RIPE® ethylene per 1,000 cubic feet (28 cubic meters) of air space is equivalent to a concentration of 1,000 ppm. One pound of COLOR RIPE® contains 13.8 cubic feet of ethylene. A perfectly sealed ripening room of 4,000 cubic feet (112 cubic meters) would require 7 hours to reach 1,000 ppm at the maximum application rate.

COLOR RIPE® ethylene is noncorrosive and special materials of construction are not required. Piping and connections exposed to pressurized ethylene gas should be capable of withstanding a working pressure of 2,000 pounds (906 kg.) per square inch.

Cylinders must be firmly secured in an upright position during discharge. The cylinder valve connection on COLOR RIPE® has a left-handed thread. The regulator provided is especially made for dispensing the ethylene gas. Use approved regulators only. The cylinder should be weighed before and after dispensing to determine the exact amount applied.

Use COLOR RIPE® only on mature tobacco. Use in curing barns immediately following filling unless moisture removal is necessary or furnace heat is desired. Close all vents and doors and start fan to provide air movement throughout tobacco prior to initiating the flow of ethylene. If furnace heat is desired it is most effective to apply prior to starting the flow of ethylene.

In cases where tobacco is harvested under extremely wet conditions it may be desirable to remove some moisture on the leaf surface prior to starting the flow of ethylene.

*COLOR RIPE is a registered trademark of Permviro Systems, Inc.

Method of use protected by one or more of the following U.S. Patents, Nos. 4,836,222 and 5,125,420.

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HAZARDS TO HUMANS
(and Domestic Animals)

DANGER

Harmful if inhaled. Avoid breathing gas. Inhalation may cause rapid suffocation due to oxygen deficiency. Liquefied or pressurized gas can cause frost burns. Do not get in eyes or on skin. Personal Protection Equipment: Applicators and other handlers must wear long-sleeved shirt and long pants, boots, goggles and chemical-resistant gloves while handling cylinder or any application equipment under pressure. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PHYSICAL OR CHEMICAL HAZARD
**EXTREMELY FLAMMABLE
COMPRESSED GAS**

Extremely flammable. Contents under pressure. Keep away from fire, sparks and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F (55°C) may cause bursting. Gas will explode if ignited when mixed with air between 2.7% to 36% by volume.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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, forests, 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 this 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 during the restricted entry interval (REI) of 12 hours.

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, is: Coveralls, waterproof gloves, shoes plus socks and protective eyewear.

CYLINDER RETURN AND REFILLING

Close the cylinder valve tightly when cylinder is empty. Do not dispose of cylinder in any manner.

Cylinders must be returned to the point of purchase for credit. All cylinders, valves and caps remain the property of the manufacturer. Federal regulations prohibit the refilling of cylinders without written consent of the manufacturer.

WITCHAWAY

ETHYLENE GAS FOR USE IN
WITCHWEED CONTROL

ACTIVE INGREDIENTS*

ETHYLENE 99.9%w/w
INERT INGREDIENTS (Related Compounds) ... 0.1%w/w
TOTAL 100.0%w/w

(This product contains 13.8 ft.³/lb. (3864 cubic meters) of ETHYLENE at 70°F (21°C) & 1 atm)

KEEP OUT OF REACH OF CHILDREN

DANGER (PELIGRO)

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

STATEMENTS OF PRACTICAL TREATMENT

IF IN EYES: Flush with plenty of water. Call a physician.
IF ON SKIN: Flush with plenty of soap and water. Get medical attention.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

ACCEPTED

9/21/95

Under the Federal Insecticide, Fungicide, and Rodenticide Act, this pesticide is registered at EPA Establishment No. 38719-NC-01 and EPA Registration No. 59657-2

PERMVIRO SYSTEMS, INC.
TROTTER'S CREEK
INDUSTRIAL PARK
3520 TROTTER DRIVE
ALPHARETTA, GA 30201

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PERMVIRO SYSTEMS, INC.'s maximum liability for breach of this warranty shall not exceed the purchase price of this product.

Unless State law provides otherwise, in no event shall PERMVIRO SYSTEMS be liable for indirect or consequential damages when this product is used or handled contrary to label instructions. This warranty shall not be changed by oral or written agreement unless signed by a duly authorized officer of PERMVIRO SYSTEMS, INC.

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METHOD OF APPLICATION

WITCHWEED CONTROL FOR THE FOLLOWING CROPS: Corn, Cotton, Peanuts and Soybeans.

APPLICATION DATES: May through July.

PRECONDITIONING PERIOD: The witchweed seeds must be exposed to adequate moisture and temperatures above 72°F (22.2°C) for a period of at least two weeks prior to application of the ethylene.

APPLICATION: A soil injector is used to apply the ethylene, and the gas is delivered from the cylinder through a regulator and a flowmeter. Shanks attached to a tool bar release the gas approximately 6 to 10 inches (15.24-25.4 centimeters) below the soil surface. The maximum shank spacing will not exceed 40 inches (101.60 centimeters). The rate of application is 1.5 pounds per acre (1.5 pounds (6795 kg.) per acre equals 19.47 cubic feet (.545 cubic meters)). The treatment rate can be calculated using the following formula:

(Tractor speed, MPH) (.12) (Treatment width, ft.) (Recommended application rate, cubic ft. per acre) = Flow rate in cubic feet per hour.

NOTE: The flow meter is used to measure the flow rate in cubic feet per hour of the gas applied.

The ethylene may be injected broadcast throughout a fallow field or it may be injected between the crop rows.

Do not till the soil within 8 hours after application.

Witchweed commonly occurs in sandy soil; however, the use of ethylene to control witchweed is not restricted to soil texture. In coarse, sandy soil the ethylene disperses in a 48-inch (121.92 centimeters) radius from the point of injection, while a 30-inch (76.2 centimeters) radius of dispersal is found in clay soils.

For use by or under supervision of USDA Personnel only. Sequential applications with other herbicides may result in crop injury.

Injection between row crops without additional weed control techniques will give no witchweed control in the current season.

TECHNICAL REFERENCE: "A Witchweed Seed Germination Stimulant", Robert E. Eplee, USDA Witchweed Method Development Laboratory, Whiteville, N.C.

For use by or under supervision of Federal and/or State personnel in accordance with the U.S. Department of Agriculture's manual instructions for witchweed eradication or control.

WITCHAWAY ethylene is noncorrosive and special materials of construction are not required. Piping and connections exposed to pressurized ethylene gas should be capable of withstanding a working pressure of 2,000 pounds (906 kg.) per square inch.

Cylinders must be firmly secured in an upright position during discharge. The cylinder valve connection on WITCHAWAY has a left-handed thread. The regulator provided is especially made for dispensing the ethylene gas. Use approved regulators only. The cylinder should be weighed before and after dispensing to determine the exact amount applied.

STORAGE AND DISPOSAL

STORAGE - Keep cylinder out of direct sunlight and away from heat. Close valve when not in use. If container is damaged and leaking, move to shaded area outside of building.

PESTICIDE DISPOSAL - Do not contaminate water, food or feed by storage or disposal. Excess gas that cannot be held in proper storage for later use should be returned to supplier.

CONTAINER DISPOSAL - Return empty cylinder for reuse.