

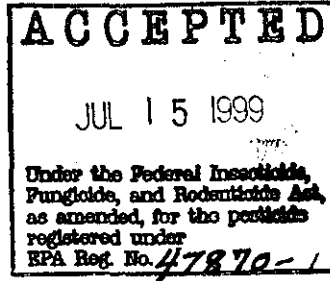
PM 22

47870-1

07/15/99

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Propylene Oxide Label - ABERCO Inc.  
47870-1  
04/01/99



CAS 75-56-0

UN 1280

# Propylene Oxide

## ACTIVE INGREDIENT

Propylene Oxide ..... 100%

This product contains 6.92 lb of active ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN**

## DANGER

### STATEMENT OF PRACTICAL TREATMENT

**IF SWALLOWED:** Call a physician or poison control center. Induce vomiting. Never give anything by mouth to an unconscious person. **NOTE TO PHYSICIAN:** Possible mucosal damage may contraindicate the use of gastric lavage.

**IF IN EYES:** Immediately flush with plenty of water for at least 15 minutes. Get medical attention.

**IF INHALED:** Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. **CALL A PHYSICIAN.**

**IF ON SKIN:** Wash off with soap and water while removing contaminated clothing and shoes. **CALL A PHYSICIAN.**

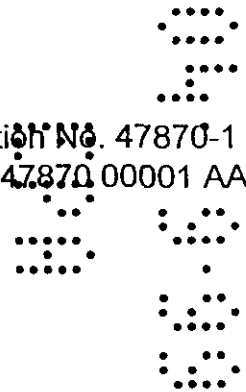
### SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Manufactured by ABERCO, Inc.  
Seabrook, Maryland

Establishment No. 47870-NJ-1  
36592-CA-1

EPA Registration No. 47870-1  
CA Registration No. 47870 00001 AA

Net Contents 366 lbs.



# PRECAUTIONARY STATEMENTS HAZARDOUS TO HUMANS & DOMESTIC ANIMALS

## DANGER

**CORROSIVE:** Causes eye damage and skin burns. Harmful or fatal if swallowed.

**DO NOT GET IN EYES:** Wear full face shield and vapor-proof goggles when opening drums or handling product. Avoid touching gloves or hands to eyes after handling until possible residues are washed off of hands. If liquid does get in eyes, flush immediately with water for 15 minutes and seek immediate medical attention.

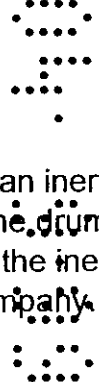
**DO NOT GET ON SKIN OR CLOTHING:** Wear protective clothing, rubber gloves, and wash before re-use. Discard contaminated leather shoes. In the event of a splash, spill, or other event which contaminates the skin or clothing, immediately remove contaminated clothing and promptly wash contaminated skin with soap and water. Seek prompt medical attention.

**DO NOT BREATHE VAPORS OR FUMES:** If the concentration of propylene oxide in the workroom or area exceeds 20 ppm by volume, respiratory protection is mandatory. For respiratory protection, wear a self-contained breathing apparatus (SCBA) of a type jointly approved by the Mining Enforcement and Safety Administration and the National Institute for Occupational Safety and Health or an ambient breathing apparatus.

**DRUMS MAY BE UNDER PRESSURE WHEN OPENED:** Relieve pressure by slowly opening the small bung in a safe, well-ventilated area, standing upwind if outdoors and with the barrel between you and the nearest point of air exhaust if indoors. If a hissing sound is heard, do not further open the small bung until the hissing sound stops. Continue opening small bung and waiting until any hissing stops. Only when small bung has been completely opened is the pressure to be considered as relieved. See CLOTHING AND EYE PROTECTION section for protective gear that must be worn.

## EMPTYING DRUMS

Electrically ground drum. The best procedure is to displace the contents with an inert gas. Care must be taken to see that no appreciable pressure is exerted on the drum. A pressure relief device set to several inches of water should be installed on the inert gas line. For details, read brochure "Propylene Oxide" available from this company.



### ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

### PHYSICAL OR CHEMICAL HAZARDS

#### EXTREMELY FLAMMABLE

This product is an extreme fire hazard. The flash point is -35°F Tag open Cup and the flammable limits of vapor in air, in percent by volume, are 2.1 lower and 38.5 upper. Keep away from heat, sparks, open flame and heated surfaces.

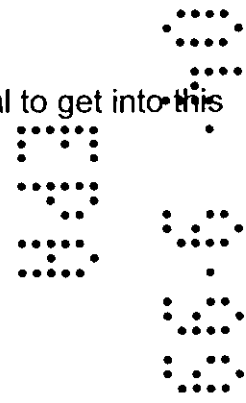
### IN CASE OF FIRE, SPILL, OR LEAK

**FIRE:** Use carbon dioxide or dry chemical on small fires and "alcohol" foams on large fires. Water spray may be ineffective, but use water to keep exposed drums cool. In advances or massive fires, firefighting should be done from a safe distance or a protected location. Wear self-contained breathing apparatus (SCBA) and full protective clothing.

**SPILL OR LEAK:** Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied respirator/SCBA for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location away from sources of ignition, observing strict safety precautions. Work upwind, if possible. Wash fumigant into soil or cover with soil or other absorbent material. Do not permit entry into spill area by unprotected persons until concentration of propylene oxide is determined to be less than 20 ppm.

### DO NOT CONTAMINATE CONTENTS

Hazardous polymerization may occur. Do not allow foreign material to get into this drum, particularly acidic or alkaline materials.



### DIRECTIONS FOR USE

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

This fumigant is a highly hazardous material and should only be used by individuals trained in its proper use. Before using, read and follow all label precautions and directions.

All persons working with this fumigant should be knowledgeable of the hazards of this chemical, and trained in the proper use of required respirator equipment and detector devices, emergency procedures, and use of this fumigant.

To aid in the control of microbiological spoilage and as an insecticidal fumigant for the control of stored products' insects. To reduce bacterial and mold contamination in processed spices, cocoa, and processed nutmeats (except peanuts).

Treated nutmeats must be allowed to off-gas for at least 28 days (with the off-gassing temperature no less than 25° C) unless it has been determined that propylene oxide residues are less than 300 ppm.

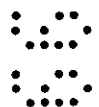
### NOT FOR USE ON COCOA IN CALIFORNIA

#### WHEN USED ALONE:

Add product in a vacuum to fumigator retort at not more than 2.4 ounces propylene oxide in vapor form per cubic foot of space in the retort. Temperature of product should not be in excess of 125° F. Exhaust the retort within four hours and air wash with four chamber volumes of air.

#### WHEN USED IN COMBINATION WITH AN INERT GAS SUCH AS CARBON DIOXIDE OR NITROGEN:

Propylene oxide may be used in combination with carbon dioxide or nitrogen, which is added to the retort along with propylene oxide. This reduces the flammability of the gases in the retort and increases the efficiency of heat transfer to the items being treated. The approved mixture is 8% propylene oxide and 92% inert gas. This can be obtained by adding propylene oxide, in a vacuum, to the retort at not more than 0.2 ounces per cubic foot of space in the retort. Carbon dioxide or nitrogen may then be added to restore ambient pressure, taking care not to vent propylene oxide during addition of the inert gas. When this mixture is used, the treatment time may be extended up to 48 hours. The temperature should not be in excess of 125° F. After treatment, exhaust the retort and air wash with four chamber volumes of air.



## PROTECTIVE CLOTHING AND RESPIRATOR USE, AND STORAGE OF TREATED COMMODITIES

### CLOTHING AND EYE PROTECTION

When contact with liquid propylene oxide can occur, such as when opening drums or handling leaks or spills, the following protection must be worn; full body protection including solvent-proof gloves, clothing, hat, apron, boots, and vapor-proof goggles and full face mask if self-contained breathing apparatus (SCBA) is not required. Don't use contaminated clothing until washed. Discard contaminated leather shoes.

### RESPIRATORY PROTECTION

If the concentration of propylene oxide in the working area (working area includes all holding or storage areas for treated commodities in which off-gassing may occur), as measured by a Dreger Multi Gas Detector Pump with Dreger tube # 67 28 971-1A (or equivalent) or a Miran 101 Specific Vapor Analyzer (or equivalent - for additional information contact ABERCO), exceeds 20 ppm (4 mg/cubic meter), use of a full-face, self-contained breathing apparatus (SCBA) jointly approved by the Mining Enforcement and Safety Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) or an ambient air breathing apparatus is mandatory.

The use of an approved SCBA or ambient air breathing device is also required when the air level of propylene oxide is not known and/or may be elevated such as in emergency entrance, spills, and leaks.

### AERATION AND RE-ENTRY

After fumigation, treated areas must be aerated until the level of propylene oxide is below 20 ppm. Do not allow entry into the treated area by any person before this time unless provided with an MSHA/NIOSH approved SCBA.

## PLACARDING

The applicator must placard or post all entrances to the fumigated area with signs bearing:

1. The signal word "DANGER" and the skull and cross-bones symbol.
2. The statement "Area under fumigation. DO NOT ENTER."
3. Date of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of the applicator.

Do not remove a placard until the treated space is completely aerated. To determine whether aeration is complete, each fumigated site must be monitored and shown to contain less than 20 ppm propylene oxide inside. If less than 20 ppm propylene oxide is detected, the placard may be removed.

## STORAGE AND DISPOSAL

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

**STORAGE:** Store in a well-ventilated, cool, secure area away from heat, flame, sparks, electrical equipment, or other ignition sources.

**DRUM DISPOSAL:** If used drum is filled with an inert gas, the best procedure is to replace bungs immediately after disconnecting drum and give drum to recycler. Otherwise, empty drum may contain explosive vapor and should be filled with water immediately after use. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill or by other procedures approved by state and local authorities.

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide Environmental Control Agency or the Hazardous Waste representative of the nearest EPA regional office for guidance.

**When Using Arc Chemicals DOT 5P Drum**

- 1) Keep the Propylene Oxide DOT 5P insulated drum away from heat, light, flames, fires, and spark producing devices. Propylene oxide is extremely flammable, and its vapors will explode if ignited. Store and use out-of-doors, if possible, or in an adequately ventilated area.
- 2) The Propylene Oxide DOT 5P drum is designed to discharge only liquid Propylene Oxide. If Propylene Oxide gas is required, use vaporizing equipment.
- 3) Use only sparkproof tools with the Propylene Oxide DOT 5P drum. Use only steel or stainless steel piping and connections when using Propylene Oxide with an inert gas. Never use rubber. Ground all equipment including this container to avoid static sparks. Only explosion-proof electrical equipment should be used where Propylene Oxide may be present.
- 4) Keep Propylene Oxide DOT 5P drum upright for discharge (see 2 above). Connect "Y" valve marked "VENT" through pressure regulator and check-valve to source of inert gas, such as nitrogen. The working pressure of this drum is 50 psi gauge. Do not use compressed air. Do not apply heat to this container by any means.
- 5) Always install check-valve in line from the Propylene Oxide DOT 5P drum to processing equipment to prevent backflow into drum. Then open valve marked "LIQUID" which is connected to an eductor tube for liquid discharge. This valve has left-hand threads. Keep valves closed when not in use.
- 6) Observe all local laws, regulations, ordinances, and insurance regulations covering the storage and use of flammable material.
- 7) When empty, the Propylene Oxide DOT 5P drum should be returned to original shipping point with a nitrogen pressure of 50 psi gauge at 70°F or equivalent ambient temperature. The DOT 5P drum is the property of: ARC Chemical Division, Balchem Corporation.