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MAY 05 1989

Union Carbide Corporation
Linde Division, 1000
as contained, for the pesticide
registered under
EPA Reg. No.

OXYFUME® 12

STERILANT-FUMIGANT GAS

ACTIVE INGREDIENT ETHYLENE OXIDE 12% BY WEIGHT

INERT INGREDIENT DICHLORODIFLUOROMETHANE 88% BY WEIGHT

DANGER! NONFLAMMABLE LIQUID AND GAS UNDER PRESSURE.

HARMFUL IF INHALED. CAUSES EYE AND SKIN BURNS.

DANGER! CANCER HAZARD AND REPRODUCTIVE HAZARD.

OTHER POSSIBLE DELAYED HEALTH EFFECTS may be nervous system injury, chromosomal changes, and cataracts.

EFFECTS OF OVEREXPOSURE may be nausea, vomiting, diarrhea, numbness, weakness, loss of muscle coordination, dizziness, drowsiness, convulsions, loss of consciousness, irritation of lungs, delayed lung injury (fluid in lungs), breathing difficulties, blisters on skin, allergic skin reaction.

PEL 1PPM-TWA (ETHYLENE OXIDE)

(OSHA 29CFR1910.1047)

ODOR: Ether like at high concentrations.

Do not breathe gas. Do not get in eyes, on skin or clothing.

Store and use with adequate ventilation.

FIRST AID: IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. IN CASE OF CONTACT, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Aerate, wash or clean contaminated clothing and discard leather goods.

LEAK: Evacuate area and keep personnel upwind. Use self-contained breathing apparatus and protective clothing, and shut off leak if without risk.

FIRE: Use water spray or fog nozzle to keep tank cool.

IN EMERGENCY: Call CHEMTREC 800-424-1300.

BEFORE USING OR HANDLING THIS PRODUCT YOU MUST ALSO READ AND UNDERSTAND LINDE MSDS L-4799 AND FORM L-14-099, "OXYFUME® 12 STERILANT GAS REMOTE SUPPLY SYSTEM".

FOR HOSPITAL AND INDUSTRIAL USE ONLY

This product contains Chlorofluorocarbons. Classified by Underwriters Laboratories, Inc. as a fire hazard only. Oxyfume® 12 Sterilant Fumigant. The product supplied liquefied under pressure. It is non-flammable at normal temperatures. At higher temperatures, liquefied temperature 46.1°F (-46.5°F). It is flammable at normal, weakly combustible mixtures with air and do not prepare fumigant to approach the mixture. Control No. 998F.

CAS: 75-21-8 Ethylene Oxide

CAS: 75-71-8 Dichlorodifluoromethane

DOT Shipping Name:
Compressed Gas N.O.S. UN1956

HAZ Shipping Name:
Compressed Gas Tox. N.O.S. UN1955

EPA Reg. No. 10330-5

EPA Est. No. 10330



Union Carbide Corporation, Linde Division, Danbury, CT 06817-0001

NET CONTENT lb

DIRECTIONS FOR USE

INTRODUCTION

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

To be used only by persons experienced in Oxyfume® 12 gas sterilization and fumigation, or by persons under direct supervision of persons who are experienced in Oxyfume® 12 gas sterilization and fumigation. Use only in accordance with directions given on this label. See current Union Carbide Corporation, Linde Division, Material Safety Data Sheet, Form L-4799 and "Oxyfume® 12 Sterilant Gas Remote Supply System" Manual for additional safety information.

GENERAL INSTRUCTIONS

1. The approximate vapor pressure exerted by this gas mixture will be 60 psig (414 kPa) at 70°F (21.1°C) while liquid is present. Vapor pressure will be lower if temperature is below 70°F (21.1°C), higher if temperature is above 70°F (21.1°C). The remote supply system has an output pressure range of 70-140 psig.

2. Use metal (except aluminum) fittings and piping or Teflon-lined tubing, capable of withstanding the pressure to be encountered. Install pressure relief devices where liquid can be trapped between valves. Ethylene-propylene rubber and teflon are suitable materials for gaskets.

STORAGE AND DISPOSAL

Oxyfume® 12 is stored as a liquefied compressed gas at ambient temperature in the storage vessel. Follow instructions provided in Oxyfume® 12 Sterilant Gas Remote Supply Manual L-14-099. Do not dispose of product. If product must be removed from storage tank or if maintenance is required contact Linde.

STERILIZATION

1. Use Oxyfume® 12 only in sterilizers designed for use with 12% by weight Ethylene Oxide and 88% by weight Dichlorodifluoromethane (Refrigerant 12).

2. Use Oxyfume® 12 only in accordance with directions supplied by the sterilizer manufacturer.

3. Sterilizer temperature and pressure influence both exposure time and Ethylene Oxide concentration. The variation of type and quantity of material to be sterilized, how packed, size of sterilizer, types of bacteria to be killed, and chamber relative humidity also affect the exposure time required for sterilization. Gas sterilizer cycle parameters should be those prescribed by the sterilizer manufacturer. If applicable, if other cycle parameters are used, the efficacy of the alternate cycle must be validated and is the responsibility of the user.

4. Aerate sterilized materials before use.

FUMIGATION

1. Fumigation with Oxyfume® 12 should be performed in vacuum or gastight chambers designed for use with 12% by weight Ethylene Oxide and 88% by weight Dichlorodifluoromethane (Refrigerant 12).

2. Use Oxyfume® 12 only in accordance with directions provided by chamber manufacturer.

3. Chamber temperature and pressure influence both exposure time and ethylene oxide concentration. The variation of type and quantity of material to be fumigated, how packed, size of fumigation chamber, chamber humidity also affect the exposure time for fumigation. Gas fumigation cycle parameters should be those prescribed by the fumigation chamber manufacturer. If other cycle parameters are used the efficacy of the alternate cycle must be validated and is the responsibility of the user.

4. Aerate fumigated materials before use.

FOOD TREATMENT, 21 CFR 193.200

* Ethylene oxide may be safely used as a fumigant for the control of microorganisms and insect infestation in ground spices and other processed natural seasoning materials, except mixtures to which salt has been added.

* Ethylene oxide, either alone or admixed with carbon dioxide or dichlorodifluoromethane, shall be used in amounts not to exceed that required to accomplish the intended technical effects.

LINDE SPECIALTY GASES

Model - USA

DO NOT REMOVE THIS LABEL

L-14-100-000