



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 15 1984

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

PR NOTICE 84-5

NOTICE TO MANUFACTURERS, FORMULATORS, PRODUCERS AND
REGISTRANTS OF FUMIGANT PRODUCTS

Attention: Persons Responsible for Registration of Pesticide Products

Subject: LABEL IMPROVEMENT PROGRAM FOR FUMIGANTS

This notice requires registrants of fumigant products to revise the labeling for such products registered under FIFRA sec. 3 or 24(c) to include additional precautionary and other statements described in the Attachments to this notice. Producers of "intrastate" fumigant products are required to submit applications for full Federal registration for those products.

Products released for shipment after December 31, 1985, must bear the labeling set out in this Notice. All products in channels of trade after June 30, 1986, must bear the revised labeling. Intrastate products which are not Federally registered by December 31, 1985, may not be sold or distributed in commerce; sale or distribution will be considered illegal.

You are required to submit an application to the Agency only if:

1. Your product is an intrastate product, currently unregistered under FIFRA sec. 3 or 24(c); or
2. Your product contains carbon tetrachloride, carbon disulfide or ethylene dichloride. Products containing these active ingredients will be classified for Restricted use in early 1985, and registrants are required to submit applications for amended registration within 60 days after the effective date of that classification; or
3. You wish to use statements differing from those set out in this notice.

I. THE LABEL IMPROVEMENT PROGRAM (LIP)

On June 5, 1980, the Agency announced the establishment of a Label Improvement Program (LIP) under which labels of products were to be upgraded, improved, or revised to meet current labeling standards. Notice of this program was issued in the Federal Register and provided to all registrants as PR Notice 80-1. This notice is issued under that LIP program.

Pesticide labels are required to contain precautions and warnings "adequate to protect health and the environment." The label revisions required by this notice, if adhered to by users, will decrease the risks of fumigant usage. Fumigants are known to be highly toxic, and a number of incidents of death and serious illness have been reported. The Agency believes that the label information and requirements of this notice are necessary to adequately protect users and the public from the known adverse effects of these fumigants by reducing potential exposure. The improved precautionary information will be beneficial to users, and to medical personnel who may encounter cases of exposure resulting from fumigant use. In addition, by including such information in labeling, the Agency will enhance its ability to enforce the requirements under the misuse provisions of section 12(a)(2)(G), which will encourage greater compliance by users.

The Agency believes that these practices in many cases are already used by the fumigation industry. Any incremental costs incurred will therefore be small, and in any case will be outweighed by the benefits of more comprehensive and accurate label information, of wider and more consistent use of risk reduction practices, and of greater enforcement capability to ensure compliance.

II. FUMIGANT CHEMICALS/MIXTURES TO WHICH THIS NOTICE APPLIES

The requirements of this notice apply to all products containing the following fumigants as sole active ingredients:

- | | |
|------------------------|--------------------------|
| 1. Methyl bromide | 7. Ethylene oxide |
| 2. Aluminum phosphide | 8. Sulfuryl fluoride |
| 3. Magnesium phosphide | 9. Ethylene dichloride |
| 4. Chloropicrin | 10. Carbon tetrachloride |
| 5. Calcium cyanide | 11. Carbon disulfide |
| 6. Sodium cyanide | |

The requirements of this notice also apply to products containing the following chemicals in combination (regardless of other active ingredients that may be present):

12. Carbon tetrachloride + carbon disulfide
13. Carbon tetrachloride + ethylene dichloride
14. Methyl bromide + chloropicrin (at 2% or less)

III. FUMIGANT USES TO WHICH THIS NOTICE APPLIES

A. The requirements of this notice apply to products intended for the fumigation of:

1. Enclosed structures, including dwellings, greenhouses, warehouses, grain bins and elevators, food processing facilities, food marketing, storage and distribution facilities, commercial, industrial, and institutional buildings and similar buildings and structures (structural fumigation);
2. Transport vehicles, including, but not limited to, buses, railroad cars and boxcars, vans, trucks, trailers, ships and barges, and their contents (transportation fumigation);
3. Enclosed spaces, such as those listed in III.A.1. (space fumigation); or
4. Commodity fumigation in enclosed structures, transport vehicles, and spaces, including under tarpaulins and in vaults (commodity fumigation).

B. The requirements of this notice do not apply to:

1. Products intended and labeled for manufacturing or formulating use only;
2. Products intended and labeled solely for soil fumigation; or
3. Ethylene oxide products intended and labeled only for hospital and medical sterilization.

IV. REQUIRED LABEL CHANGES

The statements required by this notice are intended to supplement current label statements. Registrants are expected to ensure that their labels comply fully with all labeling requirements in 40 CFR 162.10. Moreover, registrants should retain statements on their current labels that do not conflict with these new statements, and should eliminate or revise current statements only to avoid redundancy, or to avoid conflicts with the requirements of this notice.

Attachments A through K of this notice set out the label revisions and additions that must be made. Each attachment addresses a single chemical or mixture, but the nature and wording of the required statements are similar for all the chemicals/mixtures.

The following types of label changes/additions are required:

- A. Addition of a Spanish warning statement to the front panel.
- B. In some cases, addition of the restricted use statement and terms of restriction limiting use to certified applicators.
 1. Six of the fumigants are already classified for restricted use: methyl bromide (in containers greater than 1.5 lbs), aluminum and magnesium phosphides, chloropicrin, calcium cyanide and sodium cyanide. These products should already bear the restricted use statements. Attachments A-D therefore do not include the restricted use statements.
 2. Sulfuryl fluoride and ethylene oxide are neither currently classified for restricted use nor proposed for such restriction. Attachments E and F therefore do not include restricted use statements.
 3. Three of the fumigants will be classified for restricted use by regulation in early 1985: ethylene dichloride, carbon tetrachloride and carbon disulfide. Within 60 days of the effective date of that regulation, applications for amended registration are required to be submitted to the Agency. In anticipation of restricted use classification, Attachments G-K include the restricted use statements.
- C. Upgrading of the human hazard precautionary statements for clarity and consistency among similar products. The signal word DANGER, the word POISON, and the skull and crossbones symbol are required for these products based on their high inhalation toxicity. (A registrant may present product-specific data to demonstrate that the product should be in a lower Toxicity Category.)
- D. For some products, statements of flammability or other physical hazards are required. Several of the fumigants are highly flammable in the liquid or vapor form.
- E. Updated practical treatment statements.
- F. Addition of "Note to Physician" statements.
- G. Use directions. Registrants are required to provide detailed use directions for their products.

This notice requires statements that persons working with the fumigant should be trained in fumigant use, and that two persons be present during the principal fumigation operations.

Moreover, since fumigation at low temperatures is generally regarded as inefficacious and greatly increases the hazards to workers, this notice requires a statement prohibiting fumigation at temperatures below 40°F.
- H. Addition of protective clothing statements.

I. Statements requiring respiratory protection devices when the concentration of the fumigant exceeds certain levels. In general, the concentration level above which respiratory protection is required is the American Conference of Government Industrial Hygienists (ACGIH) short-term exposure limit (STEL). (In some cases a calculated STEL has been used, based on the ACGIH recommendation that the STEL should not exceed three times the 8-hour time weighted average.)

The STEL is used as the lower limit for respiratory protection for reentry, removal of placards after aeration of fumigated areas, and spills or leaks of fumigant chemicals.

[ACGIH-recommended STELs are contained in their booklet "Threshold Limit Values for Chemical Substances and Physical Agents in the Workroom Environment," updated each year, which may be obtained at minimal charge from the Publications Office, ACGIH, 6500 Glenway Ave., Bldg. D-7, Cincinnati, Ohio 45211.]

J. Use of specified direct-reading detector devices to measure fumigant concentration. The registrant must identify a suitable detector device to measure the fumigant concentration.

K. Statements requiring use of NIOSH/MSHA approved respiratory protection devices. Specifically, use of a self-contained breathing apparatus or a combination SCBA/air-supplied device is required whenever the concentration level exceeds the STEL, or in situations where the concentration level may be unknown (emergency entry, spills, leaks). Registrants are encouraged to identify specific respiratory protection devices when possible.

L. Statements requiring placarding of fumigated areas in Spanish and English.

M. Aeration and reentry statements. Reentry by unprotected persons is keyed to the STEL concentration level.

N. Storage and handling statements.

O. Disposal statements. Keyed to the requirements of PR Notice 83-3.

P. Spill/Leak procedures.

V. PREVIOUS FUMIGANT LIP

In December 1980, the Agency issued an LIP requiring certain labeling revisions for fumigants used in structural and transportation sites. By letters sent to registrants, EPA required that applications for amended registration be submitted no later than March 1981. All label revisions required by that notice should have been completed.

However, if labels were not revised at that time, they must be revised under this notice. Your label must include the statements required by Items I, II and IV of that notice (I--shipboard fumigation; II--Truck and van fumigation; IV--Misuse statement). Other labeling requirements of that notice have been superseded by this and other notices. A copy of the notice is included here for your information.

VI. FORMAT OF LABEL INFORMATION

The Attachments describe the required or preferred location of the information on the label or labeling.

If all information is included on the label itself, the label must meet the format requirements of 40 CFR 162.10.

However, the Agency strongly encourages registrants to develop supplemental labeling, such as a separate instruction manual, that contains the detailed use information. Because of the specialized nature of fumigation operations and the equipment and training needs of applicators, use instructions and accompanying information will ordinarily be lengthy and difficult to reasonably include on the label. A manual or instruction booklet will allow organization of the material in a clearer and more usable form than the label attached to the container. Such a manual is considered to be labeling under FIFRA.

If a separate instruction manual is used, it may include all directions for use of the product, including protective clothing, respirator, placarding, aeration, reentry, storage, disposal, handling, and spill/leak procedures. The product label would contain all identification and precautionary information, as well as a referral statement to the separate manual.

VII. WHAT YOU MUST DO TO COMPLY (FOR CURRENT FEDERALLY REGISTERED PRODUCTS) (See Unit VIII for special instructions for intrastate products)

If you are the registrant of a fumigant product that is Federally registered under FIFRA sec. 3 or 24(c), you must take one of the following actions:

A. Revise your product labels in accordance with the instructions in the appropriate Attachments A-K. No application for amended registration is required if the wording in the Attachments is used as given, and information required to be provided by the registrant is included. If you choose this action, submit the following to the Agency no later than December 31, 1985:

1. A copy of the final printed labeling as revised; and
2. A certification, signed by an authorized representative of your company, that the labeling as revised is in compliance with the requirements of this notice.

If you fail to submit the final printed labeling and certification statement by December 31, 1985, EPA may seek to cancel your product(s) under FIFRA sec. 6(b), or may take enforcement action against your product(s) as being misbranded in violation of FIFRA sec. 12(a)(2)(E).

B. Submit an application for amended registration, together with five copies of proposed labeling if you wish to modify the statements in any substantive manner. Applications are not subject to the requirements of FIFRA sec. 3(c)(1)(D) or PR Notice 83-4 pertaining to data compensation procedures. Applications must be submitted to the appropriate Product Manager at EPA for all Federally registered products, even if originally registered by a State under FIFRA sec. 24(c).

C. Request voluntary cancellation of the product. If the product was registered by a State under FIFRA sec. 24(c), the cancellation request must be directed to both the State and the Agency.

VIII. SPECIAL INSTRUCTIONS FOR INTRASTATE PRODUCTS

An "intrastate" product is one registered by a State before August 3, 1975, and for which a Notice of Application was filed with the Agency before October 4, 1975. Such products were assigned Accession Numbers by EPA having product numbers greater than 3000, e.g., 1256-5779. At the time that the Notice of Application was filed with the Agency, the producer of the intrastate product agreed to submit an application for full Federal registration when directed to do so by the Agency.

By this notice, the Agency is requiring the submission of applications for full registration of all intrastate fumigant products containing any of the chemicals/mixtures listed in this notice, and intended for structural, space, transportation or commodity fumigation. If you have such a product, you must submit an application for registration containing the following information:

- A. An Application for New Registration (EPA Form 8570-1);
- B. A complete and accurate Confidential Statement of Formula (EPA Form 8570-4);
- C. Five copies of draft labeling complying with the requirements of 40 CFR 162.10 and this Notice;
- D. Data required by 40 CFR Part 158 for your product; and

- E. Information to show your compliance with the requirements of FIFRA sec. 3(c)(1)(D) pertaining to compensation for use of data submitted by another person. Refer to PR Notice 84-4 for current information.

Producers of intrastate products are strongly encouraged to consult with the Agency before submitting applications for registration if they are unfamiliar with the requirements for registration or with the registration process.

Applications should be submitted as early as possible, but no later than April 30, 1985, to allow time for processing. The Agency will not grant extensions of the December 31, 1985, deadline for obtaining Federal registration if your application is received later than April 30, 1985. Extensions may be granted for applications received on or before April 30, 1985, if the application cannot be approved or denied by December 31, 1985, because of Agency delay.

If you do not wish to pursue Federal registration of your intrastate product, you should request withdrawal of your Notice of Application.

IX. COMPLIANCE DATES

A. Products registered under FIFRA sec. 3 or 24(c):

As of December 31, 1985: all product released for shipment or in your physical possession (in your production facility or in storage facilities owned or leased by you) must bear the revised labeling. Product already distributed to dealers or retailers as of that date may continue to be distributed and sold until June 30, 1986.

As of June 30, 1986: all product in channels of trade must bear the revised labeling.

Products not in compliance as of these dates will be deemed to be misbranded in violation of FIFRA sec. 12(a)(1)(F).

Registrants are reminded that: 1) A copy of the revised final printed label and certification statement must be submitted to the Agency prior to distribution under that label or by December 31, 1985; and 2) It is the responsibility of the registrant to ensure that his distributors (sub-registrants) comply with these requirements within the time frames given.

B. Intrastate products:

As of December 31, 1985: all affected intrastate products must be Federally registered. Unless an extension has been granted by the Agency (as described above), any distribution or sale of an unregistered intrastate product after that date will be considered to be in violation of FIFRA sec. 12(a)(1)(A).

After an intrastate product has been registered, the labeling timeframes set out in IX.A. above apply, i.e., December 31, 1985, for product released for shipment, and June 30, 1986, for product in channels of trade.

If you request withdrawal of your Notice of Application, you may not distribute or sell the intrastate product after December 31, 1985. Product already in channels of trade as of that date may continue to be distributed and sold by dealers and retailers until June 30, 1986. Any product found in channels of trade after June 30, 1986, will be considered to be in violation of FIFRA sec. 12(a)(1)(A).

X. UPCOMING REGISTRATION STANDARDS

You should be aware that the Agency will be issuing Registration Standards for several of these fumigants before the requirements of this notice take effect. The Registration Standard may impose data requirements on registrants of such products, or may require additional labeling statements. If so, the Registration Standard will describe the requirements and set time frames for making the changes required by the Standard, and each registrant will be notified.

XI. FOR FURTHER INFORMATION

If you have questions regarding this notice, or do not understand what you must do to comply, contact Jean M. Frane, Registration Division, at 703-557-0592.

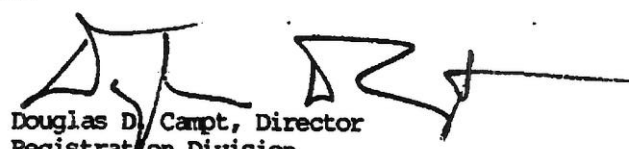
If you wish to discuss the registration or amendment of a specific product, contact:

John H. Lee, Product Manager 31, at 703-557-3675 for products containing ethylene oxide.

Arturo E. Castillo, Product Manager 32, at 703-557-3965, for all other products.

The Agency address for correspondence and submission of applications is as follows:

Registration Division (TS-767C)
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460


Douglas D. Camp, Director
Registration Division

Enclosures: 1980 Fumigant LIP letter
- Attachments A - K

REQUIREMENTS OF 1980 FUMIGANT LABEL IMPROVEMENT PROGRAM NOTICE

I. Labels bearing use directions for shipboard, intransit ship or shiphold fumigation.

Add the following statements and procedures to your label:

IMPORTANT

Shipboard, intransit ship or shiphold fumigation is also governed by U.S. Coast Guard Regulations. Refer to and comply with those regulations prior to fumigation.

PROCEDURES

Pre-fumigation procedures

1. Prior to fumigating a vessel for intransit cargo fumigation, the master of the vessel or his representative, and the fumigator must determine whether the vessel is suitably designed and configured so as to allow for safe occupancy by the ship's crew throughout the duration of the fumigation. If it is determined that the design and configuration of the vessel does not allow for safe occupancy by the ship's crew throughout the duration of the fumigation, then the vessel will not be fumigated unless all crew members are removed from the vessel. The crew members will not be allowed to reoccupy the vessel until the vessel has been properly aerated and a determination has been made by the master of the vessel and the fumigator that the vessel is safe for occupancy.

2. The person responsible for the fumigation must notify the master of the vessel, or his representative, of the requirements relating to personal protection equipment*, detection equipment and that a person qualified in the use of this equipment must accompany the vessel with cargo under fumigation. Emergency procedures, cargo ventilation, periodic monitoring and inspections, and first aid measures must be discussed with and understood by the master of the vessel or his representative.

*Personal protection equipment means a gas mask or respirator for the fumigant approved jointly by the National Institute of Occupational Safety and Health (NIOSH) and the Mine Safety and Health Administration (MSHA).

3. During fumigation, or until a manned vessel leaves port or the cargo is aerated, the person in charge of the fumigation shall insure that a qualified person using gas or vapor detection equipment tests spaces adjacent to the fumigated cargo area and all regularly occupied spaces for fumigation leakage. If leakage of the fumigant is detected, the person in charge of the fumigation shall take action to correct the leakage, or shall inform the master of the vessel, or his representative, of the leakage so that corrective action can be taken.

4. If the fumigation is not completed and the vessel aerated before the manned vessel leaves port, the person in charge of the vessel shall insure that at least two units of personal protection equipment and one gas or vapor detection device, and a person qualified in their operation, be on board the vessel during the voyage.

Precautions and Procedures During Voyage

Using appropriate gas detection equipment, monitor spaces adjacent to areas containing fumigated cargo and all regularly occupied areas for fumigant leakage. If leakage is detected, the area should be evacuated of all personnel, ventilated, and action taken to correct the leakage, before allowing the area to be reoccupied. Do not enter fumigated areas except under emergency conditions. If necessary to enter a fumigated area, appropriate personal protection equipment must be used. Never enter fumigated areas alone. At least one other person, wearing personal protection equipment, should be available to assist in case of an emergency.

Precautions and Procedures During Discharge

If necessary to enter holds prior to discharge, test spaces directly above cargo surface for fumigant concentration, using appropriate gas detection and personal protection equipment. Do not allow entry to fumigated areas without personal protection equipment, unless fumigant concentrations are at safe levels, as indicated by a suitable detector.

II. Labels bearing directions for fumigation of trucks, vans, and trailers

The following statement must appear immediately following the use directions:

Do not move trucks, vans, or trailers during fumigation. They must be completely aerated before movement is allowed.

III. Labels bearing directions for the fumigation of structures, transport vehicles, ships or shipholds

[SUPERSEDED BY PR NOTICE 84-5]

IV. Misuse Statement

All labels must bear, immediately below the heading "Directions for Use," the statement: "It is a violation of federal law to use this product in a manner inconsistent with its labeling."

V. Storage and Disposal Statements

[SUPERSEDED BY PR NOTICE 83-3]

VI. Revision of label format.

[SUPERSEDED BY PR NOTICE 84-5]

ATTACHMENT A

REQUIRED LABEL STATEMENTS FOR METHYL BROMIDE AS SOLE ACTIVE INGREDIENT

AND

METHYL BROMIDE PLUS 2% OR LESS CHLOROPICRIN

I. Spanish warning statement (to be located on front panel)

PRECAUTION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

III. Human Hazard Precautionary Statements (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Extremely hazardous liquid and vapor under pressure. Inhalation may be fatal or cause serious acute illness or delayed lung, nerve or brain injury. Do not breathe vapor. Liquid or vapor can cause serious skin or eye injury which may have a delayed onset. Do not get liquid on skin, in eyes or on clothing.

[If the product is 100% methyl bromide]

Methyl bromide vapor is odorless and non-irritating to skin and eyes during exposure. Exposure to toxic levels may occur without warning or detection by the user.

[If the product contains chloropicrin as a warning indicator (at levels of 2% or less)]

This product contains chloropicrin as a warning odorant. Chloropicrin may be irritating to the upper respiratory tract, and even at low levels can cause painful irritation to the eyes, producing tearing. If these symptoms occur, leave the fumigation area immediately.

IV. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm lift method, not mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes, jewelry, and any other item on skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

V. Note to Physician [may be located with human hazard statements (but in a separate paragraph) on the label, or may be placed solely in supplemental labeling, such as accompanying booklets or manuals]

Early symptoms of overexposure are dizziness, headache, nausea and vomiting, weakness and collapse. Lung edema may develop in 2 to 48 hours after exposure, accompanied by cardiac irregularities; these effects are the usual cause of death. Repeated overexposures can result in blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Blood bromide levels suggest the occurrence, but not the degree, of exposure. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling, such as a separate instruction manual.]

VI. Use Directions

This fumigant is a highly hazardous material and should be used only 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 about the hazards, and trained in the use of required respirator equipment and detector devices, emergency procedures, and proper use of the fumigant.

When used for fumigation of enclosed spaces [houses and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships, and other transport vehicles, and tarpaulin-covered areas or commodities], two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific directions for use follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities, or structures.]

VII. Protective Clothing

Wear full-body clothing that is cleaned after each wearing, or disposable protective clothing. Do not wear gloves or boots when handling. Methyl bromide is heavier than air and may be trapped inside and cause skin injury. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid. Do not reuse contaminated clothing or shoes until cleaned.

VIII. Respiratory Protection

If the concentration of methyl bromide in the working area, as measured by [a direct-reading detector device], does not exceed 15 ppm (60 mg/M³), no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify a specific respiratory protection device to be used with the product.]

IX. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE"
3. The date of fumigation
4. Name of fumigant used
5. Name, address, and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of methyl bromide in the treated area is below 15 ppm.

X. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of methyl bromide is below 15 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XI. Storage and Handling

Store in dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage.

Store cylinders upright, secured to a rack or wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

When cylinder is empty, close valve, screw safety cap onto valve outlet, and replace protection bonnet before returning to shipper. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Follow registrant's instructions for return of empty or partially empty cylinders.

XII. Disposal Statements

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

XIII. Spill and Leak Procedures

Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders or containers outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate. Do not permit entry into spill area by unprotected persons until concentration of methyl bromide is determined to be less than 15 ppm.

Contaminated soil, water, and other cleanup debris is a toxic hazardous waste. Report spill to the National Response Center (800-424-8802) if the reportable quantity is exceeded.

ATTACHMENT B

REQUIRED LABEL STATEMENTS FOR ALUMINUM AND MAGNESIUM PHOSPHIDE

AS SOLE ACTIVE INGREDIENT

I. Spanish warning statement (to be located on the front panel)

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

III. Human Hazard Precautionary Statements (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Phosphine gas released by this fumigant is extremely toxic. May be fatal if inhaled or swallowed. Do not get in eyes, on skin, or on clothing. Phosphine gas smells like garlic or decaying fish. If you can smell phosphine gas, leave the fumigation area immediately.

IV. Physical Hazard Statement (to be located on side panel under the heading "Physical Hazards")

Phosphine gas produced by contact with water or moisture may ignite spontaneously if confined in airtight spaces. Do not expose solid material to liquids or store under high humidity conditions.

V. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm lift method, not mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person.

If in eyes: Hold eyelid open and flush with a steady, gentle stream of water for at least 15 minutes.

If swallowed: Drink one or two glasses of water and induce vomiting by touching back of throat with finger or, if available, with syrup of ipecac.

- VI. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be placed solely in supplemental labeling, such as accompanying instruction booklets or manuals.

Aluminum phosphide [or magnesium phosphide] reacts with water or acid to form phosphine gas. Mild exposure by inhalation causes malaise, ringing in the ears, fatigue, nausea and pressure in the chest which is relieved by removal to fresh air. Moderate poisoning causes weakness, vomiting, epigastric pain, chest pain, diarrhea and dyspnea. Severe poisoning, occurring in a few hours to several days, can result in pulmonary edema and may lead to dizziness, cyanosis, unconsciousness and death. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling, such as a separate instruction manual.]

VII. Use Directions

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

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

When used for fumigation of enclosed spaces [houses and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships, and other transport vehicles and tarpaulin-covered areas or commodities], two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific directions for application follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities or structures.]

VIII. Protective Clothing

Wear gloves when handling solid material. When entering fumigated area, wear full-body clothing that is cleaned after each wearing or disposable protective clothing.

IX. Respiratory Protection

Since aluminum [or magnesium] phosphide releases phosphine gas slowly after application, normally no respiratory protection is required for handling or applying the solid material. However, a gas mask with a canister approved for phosphine or a NIOSH/MSHA approved respiratory protection device should always be available for emergencies. [The registrant may instead identify a specific respirator to be used with the product.]

After application, if the concentration of phosphine in the working area, as measured by [a direct-reading detector device], does not exceed 1 ppm (1 mg/M³), no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify a specific respiratory protection device to be used with the product.]

X. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE"
3. The date of fumigation
4. Name of fumigant used
5. Name, address, and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of phosphine in the treated area is below 1 ppm.

XI. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of phosphine is below 1 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XII. Storage and Handling

Store in a dry, cool, well-ventilated area under lock and key. Post as pesticide storage area. Store container away from all liquids. Store so as to minimize hazards of tipping, spilling or accidental puncturing of the container. Keep container tightly closed when not in use. Do not contaminate water, food, or feed by storage or disposal.

XIII. Disposal

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

XIV. Spill Procedures

Clean up spilled tablets, pellets, or dust immediately. Replace in original container if container is still usable, or into another container, and seal. Do not flush spilled material or cleanup area with water.

XV. Disposal of Fumigant Residue after Fumigation

Dispose of fumigant residue out-of-doors or in a well-ventilated area, because small amounts of phosphine gas may be given off. Spent bags or collected dry residue may be disposed of in a sanitary landfill or burial site. Alternatively, collect the dust residue and add to a bucket of water containing about 2% by volume of detergent or other wetting agent. Stir until a slurry is formed and settles out. The slurry may then be disposed of in a sanitary landfill or burial site.

ATTACHMENT C

REQUIRED LABEL STATEMENTS FOR CHLOROPICRIN AS SOLE ACTIVE INGREDIENT

I. Spanish Warning Statement (to be located on front panel)

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

III. Human Hazard Precautionary Statements (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Poisonous liquid and vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identifiable by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose, and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Harmful or fatal if swallowed.

IV. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration, preferably mouth-to-mouth. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes, and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

C-2

- V. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be located solely in supplemental labeling, such as instruction booklets or manuals)

Chloropicrin is a volatile liquid that is the active ingredient in tear gas. As a gas it is a powerful lachrymator. Early symptoms of overexposure are lachrymation, respiratory distress and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling, such as a separate instruction manual.]

VI. Use Directions

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

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

When used for fumigation of enclosed spaces [house and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships and other transport vehicles, and tarpaulin-covered areas of commodities], two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific directions for use follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities or structures.]

VII. Protective Clothing

Wear full-body clothing that is cleaned after each wearing or disposable protective clothing. Use gloves and apron that are resistant to chloropicrin. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid.

VIII. Respiratory Protection

If the concentration of chloropicrin in the working area, as measured by [a direct-reading detector device], does not exceed 0.3 ppm (2 mg/M³), no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify a specific respiratory protection device to be used with the product.]

IX. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of chloropicrin in the treated area is below 0.3 ppm.

X. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of chloropicrin is below 0.3 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XI. Storage and Handling

Store in a cool, dry, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage or disposal. Persons moving or handling containers should wear protective clothing. Open container only in a well-ventilated area wearing protective clothing, and respiratory protection if necessary.

XII. Disposal Statements

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

XIII. Spill and Leak Procedures

Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged containers outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spilled material to evaporate, or absorb onto vermiculite, dry sand, earth or similar absorbent material. which may be disposed of on site, or at an approved disposal facility. Do not permit entry into spill area or cleanup area by unprotected persons until concentration of chloropicrin is determined to be less than 0.3 ppm.

ATTACHMENT D

REQUIRED LABEL STATEMENTS FOR SODIUM AND CALCIUM CYANIDES
AS SOLE ACTIVE INGREDIENT

I. Spanish Warning Statement (to be located on the front panel)

PRECALCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

III. Human Hazard Precautionary Statements (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Contact with moisture or acid produces hydrogen cyanide, an extremely poisonous and quick-acting gas. May be fatal if swallowed or inhaled. Gas can cause eye burns and skin irritation. Do not get in eyes, on skin, or on clothing. May cause permanent nerve or brain injury at less than fatal doses. Always have available a cyanide treatment kit.

IV. Flammability Statement (to be located on side panel under the heading "Physical/Chemical Hazards")

Hydrogen cyanide gas is flammable and explosive. Do not use near flame, electrical sparks, or hot surfaces, or allow sources of ignition near the fumigated area.

V. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

Call a doctor or get medical attention as soon as possible, but start emergency treatment immediately. Always have available a cyanide treatment kit. Take the kit with you to hospital or treatment facility. The kit contains certain antidotes that can only be given by trained personnel.

Ca and Na cyanide

D-2

If inhaled: Get exposed person to fresh air, and have him lie down. Remove contaminated clothing, but keep person warm. Break an amyl nitrite pearl from the cyanide kit in a cloth and hold under nose for 15 seconds. Repeat five times at about 15 second intervals. If breathing has stopped, give artificial respiration, but not mouth-to-mouth resuscitation.

If swallowed: If patient is conscious, give one or two glasses of water and induce vomiting by touching back of throat with finger. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

VI. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be located solely in supplemental labeling such as instruction booklets or manuals)

Cyanide can be rapidly lethal by blocking oxygen utilization at the cellular level, forming cyanmethemoglobin from methemoglobin. As antidote, administer sodium nitrite intravenously followed by sodium thiosulfate to form thiocyanate. Inhalation of amyl nitrite from inhalation pearls is helpful while preparing intravenous injections. Oxygen and artificial respiration are adjunctive supportive measures.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling such as a separate instruction manual.]

VII. Use Directions

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

All persons working with this fumigant should be trained in the hazards, use of required respirator equipment and detector devices, emergency first aid, and proper use of calcium cyanide.

Two (2) trained persons must be present at the fumigation site during introduction of the fumigant, testing and aeration periods. Protective respirator equipment must be available for both persons. Have available at the site a hydrogen cyanide treatment kit.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific directions for use follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities or structures.]

VIII. Protective clothing

Wear full-body clothing that is cleaned after each wearing or disposable protective clothing. Wear chemical-resistant gloves when handling solid material. If full face respiratory protection is not required, wear goggles for eye protection.

IX. Respiratory protection

If the concentration of hydrogen cyanide in the working area, as measured by [a direct-reading detector device], does not exceed 10 ppm, no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify a specific respiratory protection device to be used with the product.]

X. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of hydrogen cyanide in the treated area is below 10 ppm.

XI. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of hydrogen cyanide is below 10 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XII. Storage and Handling

Store in a cool, dry, well-ventilated area under lock and key. Post as a pesticide storage area. Store container away from all liquids. Store so as to minimize hazards of tipping, spilling or accidental puncturing of the container. Keep container tightly closed when not in use. Do not contaminate water, food, or feed by storage or disposal.

XIII. Disposal Statements

[Label statements must conform to the requirements of PR Notice 83-3, March 29, 1983.]

XIV. Spill Procedures

Evacuate immediate area of spill. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Sweep up spill material and contaminated soil and place in airtight container for disposal. Do not flush contaminated area with water. Do not permit entry into spill area by unprotected persons until operation is complete.

Contaminated soil and cleanup debris from a calcium or sodium cyanide spill is an acute hazardous waste. Report spill to the National Response Center (800-424-8802) if the reportable quantity is exceeded.

ATTACHMENT E

REQUIRED LABEL STATEMENTS FOR ETHYLENE OXIDE AS SOLE ACTIVE INGREDIENT

I. Spanish Warning Statement (to be located on the front panel)

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Front panel signal word The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

III. Human Hazard Precautionary Statements (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Extremely hazardous liquid and gas under pressure. Inhalation of gas may be fatal. Do not get in eyes, on skin, or on clothing. Ethylene oxide is odorless. Exposure to toxic levels may occur without warning or detection by the user.

IV. Flammability Statement for 100% ethylene oxide products (to be located on side panel under the heading, "Physical/chemical hazards")

Ethylene oxide gas is extremely flammable. Do not use near flame, electrical sparks, or hot surfaces, or allow sources of ignition near the fumigated area. Ground all equipment (including this cylinder) to prevent static sparks.

V. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration, preferably mouth-to-mouth. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes, and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

VI. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be placed solely in supplemental labeling, such as instruction booklets or manuals)

Ethylene oxide is a gas usually mixed with carbon dioxide or chloro-fluoromethanes to reduce its flammability. Skin exposure will commonly result in skin irritation with extensive blister formation. At high concentrations severe conjunctivitis can occur. Irritation of the respiratory tract may occur, but without acute lung edema. Symptoms of systemic intoxication are headache, nausea, vomiting, incoordination, and cardiac irregularities. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling, such as a separate instruction manual.]

VII. Use Directions

This fumigant is a highly hazardous material and should be used only 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 the fumigant.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific directions for use follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities, or structures.]

VIII. Protective Clothing

Wear full-body clothing that is cleaned after each wearing or disposable protective clothing. Wear rubber gloves, boots and apron when handling liquid. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid. Do not reuse contaminated clothing until cleaned.

IX. Respiratory Protection

If the concentration of ethylene oxide in the working area, as measured by [a direct-reading detector device], does not exceed 3 ppm (6 mg/M³), no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA]. [The registrant may instead identify specific respirators to be used with the product.]

X. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE"
3. Date of fumigation.
4. Name of fumigant used.
5. Name, address and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of ethylene oxide in the treated area is below 3 ppm.

XI. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of ethylene oxide is below 3 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XII. Cylinder Storage and Handling

Do not contaminate water, food, or feed by storage. Store in dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Ethylene oxide

E-4

Store cylinders upright, secured to a rack or wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

When cylinder is empty, close valve, screw safety cap onto valve outlet, and replace protection bonnet before returning to shipper. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Follow registrant's instructions for return of empty or partially empty cylinders.

XIII. Disposal Statements

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

XIV. Spill and Leak Procedures

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 ethylene oxide is determined to be less than 3 ppm.

Contaminated soil, water, and other cleanup debris is a toxic hazardous waste. Report spill to the National Response Center (800-424-8802) if the reportable quantity is exceeded.

ATTACHMENT F

REQUIRED LABEL STATEMENTS FOR SULFURYL FLUORIDE AS SOLE ACTIVE INGREDIENT

I. Spanish Warning Statement (to be located on the front panel)

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

III. Human Hazard Precautionary Statement (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Extremely hazardous liquid and vapor under pressure. Inhalation of vapors may be fatal. Liquid may cause chemical burns, which may have a delayed onset, or may freeze exposed skin. Do not get in eyes, on skin or on clothing. Sulfuryl fluoride is odorless. Exposure to toxic levels may occur without warning or detection by the user.

[If the product has instructions to use chloropicrin as a warning indicator]

This product is used with chloropicrin as a warning odorant. Chloropicrin may be irritating to the upper respiratory tract and, even at low levels, can cause painful irritation to the eyes, producing tearing. If these symptoms occur, leave the fumigation area immediately.

IV. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm lift method, not mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person.

Sulfuryl fluoride

F-2

If on skin: Immediately remove contaminated clothing, shoes and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

- V. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be placed solely in supplemental labeling, such as instruction booklets or manuals)

Sulfuryl fluoride is a gas which has no warning properties such as odor or eye irritation. (Chloropicrin which is used as a warning indicator is the active ingredient in tear gas and will cause tearing.) Early symptoms of exposure to sulfuryl fluoride are respiratory irritation and central nervous system depression. Excitation may follow. Slowed movement, reduced awareness and slow or garbled speech may be noted.

Prolonged exposure can produce lung irritation, pulmonary edema, nausea and abdominal pain. Repeated exposure to high concentrations can result in significant lung and kidney damage. Single exposures at high concentrations have resulted in death. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling, such as a separate instruction manual.]

VI. Use Directions

This fumigant is a highly hazardous material and should be used only 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 use of required respirator equipment and detector devices, emergency procedures, and use of the fumigant.

When used for fumigation of enclosed spaces [houses and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships, and other transport vehicles, and tarpaulin-covered areas or commodities], two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

Do not fumigate with this product when commodity temperature is below 40°F.

Sulfuryl fluoride

F-3

[Specific use directions follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities or structures.]

VII. Protective Clothing

Wear full-body clothing and shoes that are cleaned after each wearing or disposable protective clothing. Do not wear gloves or rubber boots. Sulfuryl fluoride is heavier than air and may be trapped inside and cause skin injury. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid.

VIII. Respiratory Protection

If the concentration of sulfuryl fluoride in the working area, as measured by a [direct-reading detector device], does not exceed 10 ppm (40 mg/M³), no respiratory protection is required. [The registrant must identify the detector device suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may also identify specific respirators to be used with the fumigant.]

IX. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of sulfuryl fluoride in the treated area is below 10 ppm.

X. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of sulfuryl fluoride is below 10 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XI. Storage and Handling

Store in dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food or feed by storage.

Store cylinders upright, secured to a rack or wall to prevent tipping. Cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging, or sliding. Do not use rope slings, hooks, tongs or similar devices to unload cylinders. Transport cylinders using hand truck or fork truck to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

When cylinder is empty, close valve, screw safety cap onto valve outlet and replace protection bonnet before returning to shipper. Only the registrant is authorized to refill cylinders. Do not use cylinders for any other purpose. Follow registrant's instructions for return of empty or partially empty cylinders.

XII. Disposal Statements

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

XIII. Spill and Leak Procedures

Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Wash fumigant into soil or cover with soil or other absorbent material, which may be disposed of on site, or at an approved disposal facility. Do not permit entry into spill area by unprotected persons until concentration of fumigant is determined to be less than 10 ppm.

ATTACHMENT G

REQUIRED LABEL STATEMENTS FOR ETHYLENE DICHLORIDE AS SOLE ACTIVE INGREDIENT

I. Spanish Warning Statement (to be located on front panel)

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Restricted Use Statement (to be located at top of front panel and in any supplemental labeling such as instruction booklets or manuals)

RESTRICTED USE PESTICIDE

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

III. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

IV. Human Hazard Precautionary Statement (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals).

DANGER

Extremely hazardous liquid and vapor. Inhalation of vapor may be fatal or may cause serious acute illness. Liquid can cause serious skin or eye injury. Do not get in eyes, on skin or on clothing. Harmful or fatal if swallowed.

V. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm lift method, not mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person.

Ethylene dichloride

G-2

If on skin: Immediately remove contaminated clothing, shoes and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

If swallowed: If person is conscious, give 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, with syrup of ipecac.

VI. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be placed solely in supplemental labeling, such as instruction booklets or manuals)

Ethylene dichloride is a central nervous system depressant, and can produce all stages of anesthesia. Prolonged exposure will irritate the lungs; exposed persons should be observed for 48 hours for signs of lung edema. Delayed liver and kidney damage may result. Eye exposure to vapor may produce a clouding of the cornea, possibly progressing to endothelial necrosis and corneal infiltration by lymphocytes and connective tissue cells. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling such as a separate instruction manual.]

VII. Use Directions

This fumigant is a highly hazardous material and should be used only 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 use of required respirator equipment and detector devices, emergency procedures, and use of the fumigant.

When used for fumigation of enclosed spaces [houses and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships and other transport vehicles, and tarpaulin-covered areas or commodities], two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific use directions follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities or structures.]

VIII. Protective Clothing

Wear full-body clothing that is cleaned after each wearing or disposable protective clothing. Use gloves and apron that are resistant to ethylene dichloride. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid.

IX. Respiratory Protection

If the concentration of ethylene dichloride in the working area, as measured by [a direct-reading detector device], does not exceed 30 ppm (120 mg/M³), no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify specific respirators to be used with the product.]

X. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of ethylene dichloride in the treated area is below 30 ppm.

XI. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of fumigant is below 30 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XII. Storage and Handling

Store in a cool, dry, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage or disposal.

XIII. Disposal Statements

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

IV. Spill and Leak Procedures

Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged containers outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill/leak to evaporate. Do not permit entry into spill area or cleanup area by unprotected persons until concentration of ethylene dichloride is determined to be less than 30 ppm.

Contaminated soil and other cleanup debris is a toxic hazardous waste. Report spill/leak to the National Response Center (800-424-8802) if the reportable quantity is exceeded.

ATTACHMENT H

REQUIRED LABEL STATEMENTS FOR CARBON TETRACHLORIDE AS SOLE ACTIVE INGREDIENT

I. Spanish Warning Statement (to be located on the front panel)

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Restricted Use Statement (to be located at top of front panel and in any supplemental labeling such as instruction booklets or manuals)

RESTRICTED USE PESTICIDE

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

III. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

IV. Human Hazard Precautionary Statements (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Extremely hazardous liquid and vapor. Inhalation of vapor may be fatal or may cause serious acute illness very quickly. Liquid can cause serious skin or eye injury. Do not get on skin, in eyes, or on clothing. Carbon tetrachloride is odorless at levels that cause injury. Exposure to a toxic level may occur without warning or detection by the user. If you can smell carbon tetrachloride or if you feel dizzy, leave the fumigation area immediately.

V. Physical Hazard Statement (to be located on side panel under the heading "Physical Hazards")

Do not use in the vicinity of flames, hot surfaces or arc welding operations. Highly toxic phosphene gas is formed.

VI. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm lift method, not mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

If swallowed: Give 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, with syrup of ipecac.

VII. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be placed solely in supplemental labeling, such as instruction booklets or manuals)

Carbon tetrachloride acts as an anesthetic with a narrow margin of safety in cases of overexposure. Early symptoms may be dizziness, mental confusion, and respiratory failure. If respiration is maintained, rapid recovery can be expected. Kidney and liver failure may develop later, and death may occur from such effects even several days after exposure. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling, such as a separate instruction manual.]

VIII. Use Directions

This fumigant is a highly hazardous material and should be used only 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 use of required respirator equipment and detector devices, emergency procedures, and use of the fumigant.

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When used for fumigation of enclosed spaces (houses and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships and other transport vehicles, and tarpaulin-covered areas or commodities), two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific use directions follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities or structures.]

IX. Protective Clothing

Wear full-body clothing that is cleaned after each wearing or disposable protective clothing. Wear gloves and boots resistant to carbon tetrachloride. No material is completely impervious to carbon tetrachloride, therefore spills should be washed off immediately. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid.

X. Respiratory Protection

If the concentration of carbon tetrachloride in the working area, as measured by [a direct-reading detector device], does not exceed 15 ppm (90 mg/M³), no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify specific respirators to be used with the product.]

XI. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of carbon tetrachloride in the treated area is below 15 ppm.

XII. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of carbon tetrachloride is below 15 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XIII. Storage and Handling

Store in dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food or feed by storage.

XIV. Disposal Statement

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

XV. Spill and Leak Procedures

Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill/leak to evaporate. Do not permit entry into spill or cleanup area by unprotected persons until concentration of fumigant is determined to be less than 15 ppm.

Contaminated soil and other cleanup debris is a toxic hazardous waste. Report spill/leak to the National Response Center (800-424-8802) if reportable quantity is exceeded.

ATTACHMENT I

REQUIRED LABEL STATEMENTS FOR CARBON DISULFIDE AS SOLE ACTIVE INGREDIENT

I. Spanish Warning Statement (to be located on the front panel)

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

II. Restricted Use Statement (to be located at top of front panel and in any supplemental labeling such as instruction booklets or manuals)

RESTRICTED USE PESTICIDE

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

III. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

IV. Human Hazard Precautionary Statements (to be located on the front or side panel under the heading "Hazards to Humans" and in any supplemental labeling, such as instruction booklets or manuals)

DANGER

Extremely hazardous liquid and vapor. Inhalation of vapor may be fatal. Liquid may cause chemical burns or dermatitis. Do not get in eyes, on skin or on clothing. Harmful or fatal if swallowed.

V. Physical Hazard Statement (to be located on side panel under the heading "Physical Hazards")

Extremely flammable liquid and vapor. Do not use or store near fire, heated surfaces, spark-generating equipment, pilot lights, or other sources of ignition. Do not smoke when handling or applying.

Carbon disulfide

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VI. Practical Treatment Statement (to be located on front panel and in any supplemental labeling such as instruction booklets or manuals)

In all cases of overexposure, get medical attention immediately. Take person to a doctor of emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration, preferably mouth-to-mouth. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

If swallowed: Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, with syrup of ipecac.

VII. Note to Physician (may be located in a separate paragraph with human hazard statements on the label, or may be placed solely in supplemental labeling, such as instruction booklets or manuals.)

Carbon disulfide as a liquid is highly irritating to the skin and eyes. Early symptoms of exposure are fatigue, headache, visual disturbances, nausea and vomiting. If ingested, chronic gastritis, decreased free HCl, and liver damage may result. Excessive exposure may cause loss of memory, depression, unconsciousness and death. Repeated exposures may result in depressive psychosis and polyneuritis. Treatment is symptomatic.

[The remaining items may appear on the label, but are strongly recommended to be included in supplemental labeling, such as a separate instruction manual.]

VIII. Use Directions

This fumigant is a highly hazardous material and should be used only 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 use of required respirator equipment and detector devices, emergency procedures, and use of the fumigant.

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When used for fumigation of enclosed spaces [houses and other structures, warehouses, grain bins or elevators, vaults, chambers, greenhouses, trucks, vans, boxcars, ships and other transport vehicles, and tarpaulin-covered areas or commodities], two persons trained in the use of this product must be present at all times during introduction of the fumigant, testing and aeration periods.

Do not fumigate with this product when commodity temperature is below 40°F.

[Specific use directions follow. The registrant must provide complete directions for use of the product for fumigation of specified spaces, commodities or structures.]

IX. Protective Clothing

Wear full-body clothing that is cleaned after each wearing or disposable protective clothing. Wear boots, apron, and gloves of synthetic rubber when handling liquid. If full-face respiratory protection is not required, wear goggles or full face shield for eye protection when handling liquid.

X. Respiratory Protection

If the concentration of carbon disulfide in the working area, as measured by [a direct-reading detector device], does not exceed 30 ppm (90 mg/M³), no respiratory protection is required. [The registrant must identify one or more detector devices suitable for use with the product and provide or reference instructions on its use.]

If this concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify specific respirators to be used with the product.]

XI. Placarding of Fumigated Areas

The applicator must placard or post all entrances to the fumigated area with signs bearing, in English and Spanish:

1. The signal word DANGER/PELIGRO and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER/NO ENTRE."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address and telephone number of the applicator.

Only the applicator may remove placards, and only when the concentration of carbon disulfide in the treated area is below 30 ppm.

XII. Aeration and Reentry

After fumigation, treated areas must be aerated until the level of carbon disulfide is below 30 ppm. Do not allow entry into the treated area by any person before this time unless provided with a respiratory protection device (SCBA or combination air-supplied/SCBA).

XIII. Storage and Handling

Keep container tightly closed and out of sunlight. Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area. Do not contaminate water, food or feed by storage.

XIV. Disposal Statement

[Label statements must conform to requirements of PR Notice 83-3, March 29, 1983.]

XV. Spill and Leak Procedures

Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged containers outdoors or to an isolated location, 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 or cleanup area by unprotected persons until concentration of fumigant is determined to be less than 30 ppm.

Contaminated soil, water, and other cleanup debris is an acute hazardous waste. Report spill/leak to the National Response Center (800-424-8802) if reportable quantity is exceeded.

ATTACHMENT J

REQUIRED LABEL STATEMENTS FOR

MIXTURES CONTAINING BOTH CARBON TETRACHLORIDE AND CARBON DISULFIDE

Products covered by this attachment contain both carbon tetrachloride and carbon disulfide (generally in an approximate ratio of 80:20), and may also contain other ingredients considered to be active ingredients, such as sulfur dioxide and pentane. However, the primary hazards arise from the presence of the carbon tetrachloride and the carbon disulfide, and therefore the labeling must reflect those hazards.

Products containing both carbon tetrachloride (CCl₄) and carbon disulfide (CS₂) must be labeled so as to combine the statements contained in Attachments H and I for the individual chemicals. A summary of the required label statements follows. Refer to the individual Attachments for the wording of statements not given.

I. Spanish Warning Statement. Must be included.

II. Restricted Use Statement. Since both CCl₄ and CS₂ are for restricted use only, the label must bear the Restricted Use statement and terms of restriction.

III. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

IV. Human Hazard Precautionary Statements. Combine these statements, eliminating duplications and redundancies. An acceptable statement would be the following:

DANGER

Extremely hazardous liquid and vapor. Inhalation of vapor may be fatal or may cause serious acute illness very quickly. Liquid may cause chemical burns to skin or eye. Do not get in eyes, on skin, or on clothing. Harmful or fatal if swallowed. Carbon disulfide has a strong, foul odor. If you smell carbon disulfide or if you feel dizzy, leave the fumigation area immediately.

V. Physical Hazard Statement. Carbon disulfide is extremely flammable. An acceptable combination of the flammability statements would be the following:

Extremely flammable liquid and vapor. Do not use or store near fire, heated surfaces, spark-generating equipment, pilot lights, or other sources of heat or ignition. Highly toxic phosgene gas may be formed if used in the presence of electrical equipment. Do not smoke when handling or applying.

VI. Practical Treatment Statement. Combine the statement from Attachments H and I. An acceptable combination is as follows:

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm lift method, not mouth-to-mouth. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

If swallowed: Give 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, with syrup of ipecac.

VII. Note to Physician. Since the effects of overexposure may be due to either of the mixture components, use both the carbon tetrachloride and carbon disulfide statements sequentially.

VIII. Use Directions. Use the statements from Attachment H or I (which are identical) followed by specific use directions.

IX. Protective Clothing. Use the statements for carbon tetrachloride in Attachment H.

X. Respiratory Protection. The statements in either Attachment H or I may be used. Both carbon tetrachloride and carbon disulfide concentration levels must be used. The statement thus reads:

If the concentration of carbon tetrachloride in the working area does not exceed 15 ppm (90 mg/M³) and the concentration of carbon disulfide in the working area does not exceed 30 ppm (90 mg/M³), no respiratory protection is required. Concentrations should be measured using [specified direct-reading detector devices]. [The registrant must identify detector devices suitable for measuring the concentration of both carbon tetrachloride and carbon disulfide and provide or reference instructions on their use.]

If either concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify specific respirators to be used with the product.]

XI. Placarding of Fumigated Areas. The placarding statements in Attachment H or I must be used.

XII. Aeration and Reentry. The aeration/reentry statement must be used. The numbers to be inserted must be the same as those used for respiratory protection, i.e., 15 ppm for carbon tetrachloride and 30 ppm for carbon disulfide.

XIII. Storage and Handling. Use the statement for carbon disulfide in Attachment I.

XIV. Disposal statements. Statements must conform to requirements of PR Notice 83-3, March 29, 1983.

XV. Spill and Leak Procedures. A combined statement must be used, as follows:

Evacuate immediate area of spill or leak. Use SCBA or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill/leak to evaporate. Do not permit entry by unprotected persons into spill or cleanup area until concentration of carbon tetrachloride is determined to be less than 15 ppm, and concentration of carbon disulfide is determined to be less than 30 ppm.

Contaminated soil and other cleanup debris is an acute hazardous waste. Report spill/leak to the National Response Center (800-424-8802) if reportable quantity is exceeded.

ATTACHMENT K

REQUIRED LABEL STATEMENTS FOR MIXTURES CONTAINING
CARBON TETRACHLORIDE AND ETHYLENE DICHLORIDE

Products covered by this attachment contain both carbon tetrachloride and ethylene dichloride, in varying ratios, such as 25:75, 30:70, 75:25, or 80:20 (all approximate).

Products containing both carbon tetrachloride (CCl₄) and ethylene dichloride (EDC) must be labeled by combining the statements contained in Attachments G and H for the individual chemicals. A summary of the required label statements follows. Refer to the individual Attachments for the wording of statements not given.

I. Spanish Warning Statement. Must be included.

II. Restricted Use Statement. Since both CCl₄ and EDC are for restricted use only, the label must bear the Restricted Use statement and terms of restriction to certified applicators. Refer to either Attachment G or H for wording.

III. Front panel signal word. The English and Spanish signal words DANGER and PELIGRO are required. The word POISON and the skull and crossbones symbol are also required.

IV. Human Hazard Precautionary Statements. Combine the statements from Attachments G and H, eliminating duplications and redundancies. An acceptable statement would be the following:

DANGER

Extremely hazardous liquid and vapor. Inhalation of vapor may be fatal or may cause serious acute illness very quickly. Liquid can cause serious skin or eye injury. Do not get on skin, in eyes or on clothing. Harmful or fatal if swallowed.

V. Physical Hazard Statement. Use that given for carbon tetrachloride in Attachment H.

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VI. Practical Treatment Statement. Combine the statements from Attachments G and H. An acceptable combination is as follows:

In all cases of overexposure, get medical attention immediately. Take person to a doctor or emergency treatment facility.

If inhaled: Get exposed person to fresh air. Keep warm. Make sure person can breathe freely. If breathing has stopped, give artificial respiration by arm lift method, not mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person.

If on skin: Immediately remove contaminated clothing, shoes, and other items covering skin. Wash contaminated skin area thoroughly with soap and water.

If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

If swallowed: Give 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, with syrup of ipecac.

VII. Note to Physician. The effects of overexposure may be due to either component. However, since the effects are similar, the statements for carbon tetrachloride and ethylene dichloride may be combined to eliminate redundancies. An acceptable statement would be the following:

This product contains a mixture of carbon tetrachloride and ethylene dichloride, both of which act upon the central nervous system, producing varying degrees of anesthesia. Early symptoms may be dizziness, mental confusion, and respiratory failure. Lung edema may develop later, and exposed persons should be observed for 48 hours for signs of lung edema. Delayed kidney and liver effects may occur, and death may occur from kidney or liver failure even several days after exposure. Eye exposure to ethylene dichloride vapor may produce clouding of the cornea, possible endothelial necrosis and corneal infiltration by lymphocytes and connective tissue cells. Treatment is symptomatic.

VIII. Use Directions. Use the statements from either Attachment G or H (which are identical), followed by specific use directions.

IX. Protective Clothing. Use the statement for carbon tetrachloride in Attachment H.

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X. Respiratory Protection. Use the following statement:

If the concentration of carbon tetrachloride in the working area does not exceed 15 ppm (90 mg/M³), and the concentration of ethylene dichloride in the working area does not exceed 30 ppm (120 mg/M³), no respiratory protection is required. Concentrations should be measured using [specified direct-reading detector devices]. [The registrant must identify detector devices suitable for measuring the concentration of both carbon tetrachloride and ethylene dichloride and provide or reference instructions for their use.]

If either concentration is exceeded at any time, all persons in the fumigation area must wear a [NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator]. [The registrant may instead identify specific respirators to be used with the product.]

XI. Placarding of Fumigated Areas. The placarding statements in Attachment G or H must be used.

XII. Aeration and Reentry. The aeration/reentry statement must be used. The numbers inserted must be those used for Respiratory Protection, i.e., the individual 15 and 30 ppm values for the individual components.

XIII. Storage and Handling. Use the statement for carbon tetrachloride in Attachment H.

XIV. Disposal. Statements must conform to the requirements of PR Notice 83-3, March 29, 1983

XV. Spill and Leak Procedures. Use the statement for carbon tetrachloride in Attachment H. The numbers used to determine when unprotected persons may reenter must be those used for Respiratory Protection, i.e., the individual 15 and 30 ppm values for the individual components.