



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Office of Pesticide Programs
 Registration Division (7505P)
 1200 Pennsylvania Ave., N.W.
 Washington, D.C. 20460

EPA Reg. Number:

8536-45

Date of Issuance:

12/10/20

NOTICE OF PESTICIDE:

Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

CardO₂Fume

Name and Address of Registrant (include ZIP Code):

Mardel Belontinsky
 Registration Manager
 Cardinal Professional Products
 8100 Arroyo Circle
 Gilroy, CA 95020

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.


On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 8536-45."
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Signature of Approving Official:

Sincerely,

 Gene Benbow, Product Manager 7
 Invertebrate & Vertebrate Branch 3
 Registration Division (7505P)
 Office of Pesticide Programs

Date:

12/10/20

EPA Form 8570-6

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSF:

- Basic CSF dated 11/25/2020

If you have any questions, please contact Paul Di Salvo by phone at 703-347-0322, or via email at disalvo.paul@epa.gov.

Enclosure: Stamped Label

ACCEPTED

12/10/2020

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 8536-45

CardO₂Fume

ACTIVE INGREDIENT:

Carbon Dioxide.....99.95%

OTHER INGREDIENTS: 0.05%

TOTAL:..... 100.00%

KEEP OUT OF REACH OF CHILDREN

WARNING

EXPOSURE MAY CAUSE SUFFOCATION AND DEATH

VENTILATE USE AREAS BEFORE ENTERING

FIRST AID

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor immediately for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning the product, call 1-800-424-9300.



Produced for:

Cardinal Professional Products

8100 Arroyo Circle ♦ Gilroy ♦ CA 95020-7305

(800) 548-2223

EPA Reg. No. 8536-UL

EPA Est. 11220-CA-8; 8536-IL-1; 8536-CA-5

Net Weight: _____

Lot No.: _____

(Date of Label(ing): [Insert stamped 'accepted' date.])

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: May be fatal if inhaled. Do not breathe vapor. Exposure may cause suffocation and death. Ventilate areas before entering.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

For handling activities when entering enclosed areas during and after fumigation, use either a supplied-air respirator with NIOSH approval number TC-19C or a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read all directions for use carefully before applying.

PRODUCT INFORMATION

This product is used to fumigate silos, trucks, trailers, sealed railroad cars, and ships. The following agricultural commodities may be treated: wheat, oats, rice, barley and corn.

This product is effective against the following types of insects that occur in stored products or in the structures that may be fumigated with this product:

- 1) **Beetles**, including the granary weevil, rice weevil, broadnosed grain weevil, lesser grain borer, larger grain borer, confused flour beetle, red flour beetle, American black flour beetle, khapra beetle, warehouse beetle, longheaded flour beetle, slender-horned flour beetle, larger black flour beetle, yellow mealworm, dark mealworm, black carpet beetle, rusty grain beetle, flat grain beetle, saw-toothed grain beetle, merchant grain beetle, foreign grain beetle, corn sap beetle, cigarette beetle, drugstore beetle, cowpea weevil, bean weevil, pea weevil, broadbean weevil, coffee bean weevil, and cadelle;
- 2) **Psocoptera**, including book louse;
- 3) **Moths**, including the Angoumois grain moth, Indian meal moth, almond moth, raisin moth, tobacco moth, Mediterranean flour moth, meal moth, rice moth, navel orangeworm, webbing clothes moth, casemaking clothes moth and carpet moth.

Dosage rates vary from 60% atmosphere to 88% atmosphere. Treatment times vary from 24 hours to 4 days.

USE RESTRICTIONS

Do not fumigate if commodity temperature is less than 40°F. Area should be as gas tight as possible before treatment. Maintain as near to 60% ±10% CO₂ as possible.

TRAINING

All persons working with this product must be knowledgeable of the hazards of this chemical, and trained in the use of required respiratory equipment and detector devices, emergency procedures and use of the product. When used for fumigation of enclosed spaces, [e.g. boxcars, silos, ship containers, and other transport vehicles], two persons familiar with the use of this product must be present during the initial introduction of the fumigant, the initiation of aeration, and after aeration when testing for re-entry. Two persons do not need to be present if monitoring is conducted remotely (outside of area being fumigated).

PLACARDING

- The applicator must placard or post all entrances to the fumigated area with signs conforming to the following requirements:
 - a) The sign must be at least 14 inches by 16 inches in size, and the letters must be at least 1 inch in height unless a smaller size sign is necessary because the treated area is too small to accommodate a sign of this size. Letters must be clearly legible.
 - b) The signal word: “DANGER/PELIGRO” and the skull and crossbones symbol must be on the placard.
 - c) The statement, “Area under fumigation, DO NOT ENTER/NO ENTRE.”
 - d) The date of fumigation.
 - e) The name of the fumigant (carbon dioxide).
 - f) Name, address and telephone number of the applicator or pesticide handler.
- These signs must be posted at eye level and must be visible from all visible points of entry to the treated area.
- They must remain posted during application and throughout the restricted-entry interval until the concentration of carbon dioxide is below 5,000 ppm. Each separate treated area (i.e., boxcar, silo, ship container) must be posted or placarded with this sign.
- The applicator or person responsible for monitoring levels of carbon dioxide may remove the placard when the concentration of carbon dioxide is at or below 5,000 ppm.

FUMIGATION DIRECTIONS

Storage Vessels

Purge storage vessel (e.g. bin, silo, sealed railcar, or other enclosed space) to a minimum concentration of 60% atmosphere. Use a two-day treatment for killing adult insects and a four-day treatment for killing all life stages of insects. For specific flows to use, contact a Cardinal Professional Products qualified fumigation engineer.

Trucks and Trailers

Treat as indicated above in Storage Vessels. Do not move Truck or Trailer during treatment. Trucks and trailers must be aerated before movement is allowed.

Shipboard, In-transit Ship or Shiphold Fumigation

IMPORTANT: Shipboard, in-transit ship or shiphold fumigations are also governed by U.S. Coast Guard Regulations. Refer to and comply with these regulations prior to fumigation.

Prefumigation Procedures

1. Prior to fumigating a vessel for in-transit cargo fumigation, the master of the vessel or his/her 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 crewmembers are removed from the vessel. The crewmembers will not be allowed to reoccupy the vessel until the vessel has been properly aerated and a determination has been made by a master of the vessel and the fumigator that the vessel is safe for occupancy.
2. The person responsible for fumigation must notify the master of the vessel, or his representative, of the requirements relating to personal protective 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.
3. During the fumigation or until a manned vessel leaves port or the cargo is aerated, the person in charge of the fumigation must insure that a qualified person using gas or vapor detection equipment tests spaces adjacent to spaces containing fumigated cargo and all regularly occupied spaces for fumigant leakage. If leakage of the fumigant is detected, the person in charge of the fumigation must 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 is not aerated before the manned vessel leaves port, the person in charge of the vessel must ensure that at least two units of personal protective equipment, one gas or vapor detection device, and a person qualified in the 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 occupied. Do not enter fumigated areas except under emergency conditions. If necessary to enter a fumigated area, appropriate personal protective equipment must be used. Never enter fumigated areas alone. At least one other person wearing personal protective equipment should be available to assist in case of an emergency.

Precautions and Procedures During Discharge

If necessary to enter hold prior to discharge, test spaces directly above grain surface for fumigant concentration, using appropriate gas detection and personal protective equipment (PPE). Do not allow entry to fumigated areas without the proper PPE, unless fumigant

concentrations are at safe levels, as indicated by a suitable detector. Proper PPE for the fumigation means a supplied-air respirator with NIOSH approval number TC-19C or a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F.

AERATION

After fumigation, aerate treated areas until the level of CO₂, as measured by commercially available analyzers, is below 5,000 ppm. Follow the instructions as written in the manufacturer's operation manual.

RE-ENTRY (below 5,000 ppm CO₂)

If CO₂ levels are below 5,000 ppm, persons may re-enter the treated area without respiratory protection.

RE-ENTRY (between 5,000-30,000 ppm CO₂)

If CO₂ levels are between 5,000 and 30,000 ppm, persons may re-enter the treated area without respiratory protection for 15 minutes or less. For periods longer than 15 minutes, persons must wear the respiratory protection device specified in the PRECAUTIONARY STATEMENTS (PPE).

RE-ENTRY (greater than 30,000 ppm CO₂)

If CO₂ levels are over 30,000 ppm, persons must wear the respiratory protection device specified in the PRECAUTIONARY STATEMENTS (PPE).

The U.S.D.A. has set a limit of 0.5% (5,000 ppm) maximum CO₂ concentration in work areas.

SPILL AND LEAK PROCEDURES

Evacuate immediate area of 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. When completely empty, return to manufacturer or, if instructed, recycle/dispose of leaking or damaged containers in accordance with State and Local waste disposal regulations.

Do not permit entry into spill area by unprotected persons until concentration of carbon dioxide is determined to be less than 5,000 ppm.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in dry, cool well-ventilated area under lock and key. Post as a pesticide storage area.

Store cylinders and Dewar tanks upright, secured to a rack or wall to prevent tipping. Cylinders and Dewar tanks 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 or Dewar tanks. Transport cylinders or Dewar tanks using hand truck or fork truck to which the cylinders or Dewar tanks can be firmly secured.

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

PESTICIDE DISPOSAL: Vent unusable carbon dioxide to open air.

CONTAINER DISPOSAL: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Return empty containers for reuse and disposal. When container is empty, close valve, screw safety cap onto valve outlet and replace protection bonnet (cylinders only) before returning to shipper. Only the registrant is authorized to refill containers. Do not use containers for any other purpose. Follow registrant's instructions for return of empty or partially empty containers.

STATEMENT OF WARRANTY AND LIABILITY

Seller warrants that this product complies with the specifications expressed in this label. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SELLER MAKES NO OTHER WARRANTIES AND DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE INTENDED PURPOSE. To the extent consistent with applicable law, seller's liability for default, breach or failure under this label shall be limited to the amount of the purchase price. To the extent consistent with applicable law, seller shall have no liability for consequential damages.