

8536-15

11/17/2006

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, DC 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Mardel Rose Belotinsky  
Registration Manager  
Soil Chemicals Corporation dba  
Cardinal Professional Products  
P.O. Box 782  
Hollister, CA 95204-0782

NOV 17 2006

Subject: Methyl Bromide 100  
EPA Reg. No. 8536-15  
Amendment dated August 23, 2006  
EPA Decision Number 370733

Dear Ms Belotinsky:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

1. In the Storage and Disposal block:
  - a. Change the subheader "Storage and Handling" to "Pesticide Storage and Handling"
  - b. Add a subheader "Container Disposal" just before the second paragraph (Return cylinders to etc.)
  - c. Change the subheader "Disposal" to "Pesticide Disposal"

One copy of the label stamped "Accepted with comments" is enclosed for your records. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at [westin.robert@epa.gov](mailto:westin.robert@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Mary L. Waller".

Mary L. Waller  
Product Manager (21)  
Fungicide Branch  
Registration Division (7505P)

Enclosure

**RESTRICTED USE PESTICIDE  
DUE TO ACUTE TOXICITY**

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.

# Methyl Bromide 100

**Commodity Fumigant**

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
NOV 17 2006**

ACTIVE INGREDIENT: Methyl Bromide ..... 100%  
TOTAL: ..... 100%

*This product weighs 13.99 lbs./gal. at 68° F.*

*Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No. 8536-15*

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**



**PELIGRO**

**POISON**

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

**IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY.  
TAKE PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY.**

**FIRST AID**

<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>■ Move person to fresh air.</li> <li>■ If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>■ Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>■ Take off contaminated clothing.</li> <li>■ Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>■ Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>■ Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>■ Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>■ Call a poison control center or doctor for treatment advice.</li> </ul>

*Note: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.*

**NOTE TO PHYSICIAN**

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 overexposure can result in blurred vision, staggering gait, and mental imbalance, with probable recovery after a period of no exposure. Blood bromide levels suggest the occurrence, but not the degree, of exposure. Treatment is symptomatic.

*See side panels for additional precautionary statements.*



**CARDINAL PROFESSIONAL PRODUCTS**

P. O. Box 782  
Hollister • CA 95024

**EMERGENCY PHONE NUMBER**

Infotrac: 1-800-535-5053

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS  
AND DOMESTIC ANIMALS:  
DANGER**

EXTREMELY HAZARDOUS LIQUID AND VAPOR UNDER PRESSURE. INHALATION MAY BE FATAL OR CAUSE SERIOUS ACUTE ILLNESS OR DELAYED LUNG OR NERVOUS SYSTEM INJURY. DO NOT BREATHE VAPORS. LIQUID OR EXCESSIVE 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. 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.

**AIR CONCENTRATION LEVEL**

The acceptable air concentration level for persons exposed to methyl bromide is 5 ppm (20 mg/m<sup>3</sup>). The air concentration level is measured by a direct reading detection device, such as a Dräger tube/pump.

**PERSONAL PROTECTIVE EQUIPMENT**

Applicators and other handlers must wear:

- Loose-fitting or well ventilated long-sleeved shirt and long pants or equivalent, e.g., a one-piece garment.
- Shoes and socks
- Full-face shield or safety glasses with brow and temple shields when handling liquid product (Do NOT wear goggles.)
- When the air concentration level of methyl bromide is above 5 ppm and a respirator is required, protect the eyes by wearing a full-face respirator.
- No respirator is required if the air concentration level of methyl bromide in the working area is measured to be 5 ppm or less.
- A respirator is required if the air concentration level of 5 ppm for methyl bromide is exceeded at any time. The respirator must be one of the following types: (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TC-19C) OR (b) a self-contained breathing apparatus (SCBA) (MSHA/NIOSH approval number prefix TC-13F).

**WORK SAFETY REQUIREMENTS**

- Do not wear jewelry, gloves, goggles, tight clothing, rubber protective clothing, or rubber boots when handling. Methyl bromide is heavier than air and can be trapped inside clothing and cause skin injury.
- If liquid fumigant splashes or spills on clothing, remove them at once, as fumes will be an intolerable source of irritation.
- Immediately after contamination, remove outer clothing, shoes and socks, and do not reuse until thoroughly aerated or ventilated. Keep such clothing and shoes outdoors until thoroughly aerated. Then follow the PPE manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE and work clothing separately from other laundry.
- Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning/maintaining protective eyewear and respirators.

**USER SAFETY RECOMMENDATIONS**

*Users should:*

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets on clothing. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

**OBSERVE THE FOLLOWING PRECAUTIONS  
GENERAL PRECAUTIONS**

1. Do not get in eyes, on skin or on clothing.
2. Do not spill or discharge contents outside of areas confined for treatment.
3. Comply with all local regulations and ordinances.
4. It is advisable to supply your physician with information on Methyl Bromide. Literature is available from your dealer or distributor.
5. Obtain medical assistance at once in case of illness after exposure, and do not allow conditions which could accidentally cause further exposure until recovery is complete. (See Note to Physician.)

**PRECAUTIONS FOR COMMODITY USE**

**General Precautions:**

- When used for fumigation of enclosed spaces (such as warehouses; vaults; chambers; trucks, vans, boxcars, ships and other transport vehicles; and tarpaulin-covered areas), two persons trained in the use of this product must be present during introduction of the fumigant, initiation of aeration, and after aeration when testing for reentry. Two persons do not need to be present if monitoring is conducted remotely (outside the area being fumigated).
- Do not fumigate with this product when the temperature is below 40°F.
- Whenever possible, apply methyl bromide from outside of structure or car being fumigated. Make sure the fumigated area is properly sealed and posted. Do not move trucks, trailers, or vans during fumigation. They must be completely aerated before movement is allowed.

**Aeration and Reentry:**

- After fumigation, fumigated areas must be aerated until the air concentration level of methyl bromide is measured to be 5 ppm or less.
- Until the acceptable air concentration level is reached, do not allow any person to enter into the fumigated area unless he/she is wearing the personal protective equipment (including prescribed respirator) specified in the Hazards to Humans section of this labeling.

**Spill and Leak Procedures for**

**Enclosed Space Fumigation:**

- Evacuate everyone from the immediate area of the spill or leak.
- For entry into affected area to correct problem, wear the personal protective equipment (including prescribed respirators) specified in the Hazards to Humans section of this labeling.
- Move leaking or damaged containers outdoors or to an isolated location.
- Observe strict safety precautions.
- Work upwind, if possible.
- Allow spilled fumigant to evaporate.
- Only correctly trained and PPE-equipped handlers are permitted to perform such cleanup. Do not permit entry into the spill or leak area by any other person until the air concentration level of methyl bromide is measured to be 5 ppm or less.
- 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 of 1000 lbs. is exceeded.

**ENVIRONMENTAL HAZARD**

- This pesticide is toxic to wildlife. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
- Monitor area immediately surrounding the fumigation site with a direct reading detection device, such as a Dräger tube/pump, during exposure and aeration periods to establish that dangerous levels of the fumigant are not present. The high volatility of the fumigant permits it to be vented from space being fumigated and to dissipate rapidly with no hazard to surrounding areas with correct monitoring.

**CH. IICAL HAZARD**

- Methyl bromide is practically nonflammable. There is no danger from fire or explosion in use concentrations. However, flame can change the chemical to produce some corrosive damage to items in the space being fumigated. Pilot lights and glowing wire heaters should be turned off.
- Do not apply gas directly to metal surfaces because of possible corrosive effect on certain metals. Do not use containers or application equipment made of magnesium, aluminum, or their alloys.
- The following materials can develop an undesirable odor when encountered in fumigated areas and should be removed from the space being fumigated:
  - Foodstuffs: (a) Iodized salt; (b) Full-fat soya flour, (c) Any kinds of materials that contain reactive sulfur compounds, such as some soap powders, some baking sodas, and some salt blocks used for cattle licks.
  - Certain rubber goods: (a) sponge rubber; (b) Foam rubber, as in rug padding, pillows, cushions, and mattresses; (c) Rubber stamps and other similar forms of reclaimed rubber.
  - Furs, horsehair, and pillows (especially feather pillows).
  - Leather goods (particularly white kid or any other leather goods tanned with sulfur processes).
  - Woolens (extreme caution should be used in the fumigation of any angora woolens, and some adverse effect has been noted on the fumigation of woolen suits, coats, blankets, hand-knit woolen socks, sweaters, shawls, and woolen yarn).
  - Viscose rayons (those rayons processed or manufactured by a process in which carbon bisulfide is used).
  - Paper: (a) Silver-polishing papers; (b) Certain writing papers cured by sulphide processes; (c) Carbonless paper or blue-prints.
  - Photographic chemicals as used in photo processing darkrooms (does not include camera film).
  - Cinder blocks, or mixed concrete, which occasionally picks up odors.
  - Any materials that may contain reactive sulfur compounds.
  - THESE PRODUCTS MAY HINDER EFFECTIVENESS OF THE FUMIGANT: Charcoal materials (charcoal absorbs the methyl bromide, reducing the effective concentration and contaminating the charcoal).
  - If there is a question whether a material may develop an odor, a test fumigation may be run with a small quantity of the material.

### DIRECTIONS FOR USE

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

- THIS PRODUCT IS TO BE USED for control of pests in stored or residual food products, agricultural commodities and other materials and products as specified on this label. This product is to be used for these purposes ONLY IN: (a) enclosed spaces and structures that are intended or used for processing, transportation, handling, or storage of food products, agricultural commodities or other materials and products identified on this label; (b) enclosed spaces and structures in which food products, agricultural commodities, or other materials and products identified on this label have been processed, transported, handled or stored; and, when this product is used for the foregoing purposes, (c) associated storage areas, work areas and food service facilities (such as employee cafeterias and test kitchens). DO NOT USE THIS PRODUCT IN residential structures or in food service facilities (such as public restaurants) other than those described above, or for any other purposes other than those described above.

### PLACARDING OF FUMIGATED AREAS

The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing:

- skull and crossbones symbol
- "DANGER/PELIGRO"
- "Area under fumigation, DO NOT ENTER/NO ENTRE"
- "Methyl Bromide Fumigant in use"
- the date and time of fumigation, and
- name, address, and telephone number of the applicator
- Boxcars must be placarded with D.O.T. specified warning signs.

Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration level of methyl bromide is measured to be 5 ppm or less. Signs must remain legible during the entire posting period. Warning signs are available from your dealer or distributor.

### STORAGE AND DISPOSAL

**DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.**

**STORAGE AND HANDLING:** Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area. Persons moving, handling, or opening containers must wear the personal protective equipment (including prescribed respirators when necessary) specified in the Hazards to Humans section of this labeling. Open container only in a well-ventilated area. 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.

**RETURN CYLINDERS TO:** Cardinal Professional Products, 8770 Highway 25, Hollister, CA 95023. Cylinders are the property of Cardinal Professional Products and should be returned promptly by collect auto freight. Do not ship cylinders without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the company for return instructions.

**SHIPPING:** This fumigant is classified in the U.S. Department of Transportation Hazardous Materials Regulations as Methyl Bromide, 2.3, UN 1062, Poison-Inhalation Hazard, Hazard Zone C and no exemptions from specifications, packaging, marking, or labeling are allowed. Describe empty cylinders as having last contained Methyl Bromide (inhalation hazard). Do not ship with foods, feeds, or clothing.

**DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

# COMMODITY FUMIGATION

## ■ PREPARATION AND FUMIGATION

### GENERAL INFORMATION & INSTRUCTIONS

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 MUST 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.

### ■ TREATMENT SITES

Under sealed tarpaulins, in flour mills, feed mills, spice mills, textile mills, warehouses, boxcars, fumigation vaults, flat or upright bulk grain storage, tobacco warehouses, food processing plants and cargo ships.

### ■ INSECTS AND PESTS CONTROLLED

Almond Moth	Fruit Flies of the family <i>Tephritidae</i>
Pin Worms	Angoumois Grain Moth
Pink Boll Worm	(Quarantine species)
<i>Anthrenus sp.</i>	Golden Nematode
Aphids	Granary Weevil
Potato Tuber Moth	Bamboo Shothole Borer
Hairy Fungus Beetle	Raisin Moth
Bean Weevil	Indian Meal Moth
Red-Legged Ham Beetle	<i>Brachyrhinus sp.</i>
Japanese Beetle	Rice Weevil
Bull Flies	Khapra Beetle
Rusty Grain Beetle	Cadelle
Saw-toothed Grain Beetle	Carpet Beetle
Lesser Grain Borer	Sweet Potato Weevil
Cigarette Beetle	Mealworms
Thrips	Confused and Red Flour Beetles
Mealy Bugs	Tobacco Beetle
Mediterranean Flour Moth	Tobacco Moth
Corn Borer	Merchant Grain Beetle
<i>Trogoderma sp.</i>	Cowpea Weevil
Mice and Rats	Vegetable Miner
<i>Dermestes sp.</i>	Mites
Warehouse Beetle	Dried Fruit Beetle
Naval Orange Worm	White Fringed Beetle
Drug Store Beetle	Olive Scale
European Corn Borer	Oriental Fruit Moth
European Pineshoot Moth	Leaf Miner
Pea Weevil	Flat Grain Beetle
Peach Twig Borer	Plum Moth

1. Remove fresh fruit, seeds, bulbs and living plants from the area to be fumigated, as they may be damaged during treatment. Certain food crops require fumigation at times, some of which are specified by certain quarantines. In such cases follow quarantine regulations, and fumigate only those products for which a tolerance for residual bromide has been established by the U.S. Food and Drug Administration.
2. Do not fumigate food products other than those for which a residue tolerance is registered with the Environmental Protection Agency (EPA).
3. Do not use dosages higher than those recommended as this may in some cases result in residues in excess of those permitted. Repeated fumigation may also result in excess residues.
4. It is not recommended to fumigate grain if moisture is high, temperature is low (below 60 degrees F), or there is excessive dockage.
5. Commodity to be fumigated should be covered with tarpaulins and sealed, or in the case of boxcars, buildings and cargo ships, all external openings should be closed. Seal building roof ventilators and chimneys by wrapping them with a tarpaulin, or plastic sheet, or by stripping the screened openings with a wide commercial masking tape. Stairwells and interior doors should be closed. Any broken windowpanes should be replaced, then exterior doors and windows should be wedged tight, locked, and cracks caulked or taped. Check for cracks in the floor, roof and around eaves and seal them.
6. Special care should be taken to seal off adjacent storage or work areas of treatment sites that are not to be fumigated. Adjoining structures sharing a common wall should be cleared of occupants before fumigation. If this is not feasible, spread a glossy-type building paper along the adjoining wall to prevent spread of the fumigant into undesired areas. Sisal Kraft paper, asphalt-laminated paper, heavily oiled Kraft or wrapping paper and plastic film are appropriate. In all such cases where the adjoining structure is occupied, it should be checked frequently with a suitable gas detector during fumigation to ensure the safety of the occupants. Check local regulations for specific requirements.

## SPECIAL PROCEDURE FOR SHIP FUMIGATION

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

### ■ PREPARATION FOR SHIP FUMIGATION

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 crewmembers 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.
3. During the 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 spaces containing fumigated cargo 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 ensure 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.

\*"Personal protection equipment" means a gas mask or respirator for the fumigant, jointly approved by the Mining Enforcement and Safety Administration and the National Institute of Occupational Safety and Health.

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■ **PRECAUTION: NO PROCEDURES DURING VOYAGE**  
If necessary to enter holds prior to discharge, test spaces directly above commodity 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.

### APPLICATION INSTRUCTIONS

Release Methyl Bromide through a heat exchanger or suitable leak proof tube (such as polyethylene) from outside of structure. If it is necessary to release fumigant from inside of structure, a gas mask or S.C.B.A. must be worn as described in the "Hazards to Humans and Domestic Animals" section of this labeling. Operate electric fan(s) for a minimum of 30 minutes after release to accelerate distribution of gas.

### MONITORING, AERATION AND REENTRY

1. After fumigation, fumigated areas must be aerated until the air concentration level of methyl bromide is measured to be 5 ppm or less.
2. At the end of the exposure period, remove all seals and open all doors and windows that are operational. Allow for complete ventilation. Use ventilation fans whenever possible to remove fumigant from dead air pockets.
3. Certain materials absorb methyl bromide during fumigation and desorption during aeration may call for an extended monitoring and aeration period.

### ■ DRÄGER GAS DETECTOR, BENDIX GASTECH DETECTOR (Hand Pump and Detector Tube)

Methyl bromide may be detected at the Threshold Limit Value (T.L.V.) of 5 ppm. Detectors are available from Soil Chemicals Corporation.

### ■ HALIDE LAMP DETECTOR

Color of the flame is an index of the concentration of methyl bromide present. The following tabulated information provides an index of flame color and concentration of methyl bromide present.

METHYL BROMIDE PPM	LB/1000 CU.FT.	FLAME COLOR (DAYLIGHT*)
0	0	None
25	0.00625	None
50	0.0125	Moderate Green
125	0.031	Green
250	0.0625	Strong Green
500	0.125	Strong Blue-Green Fringe
800	0.20	Strong Blue-Green
1000	0.25	Blue

\* Nighttime color is identical but allowance must be made for the bluish cast of the flame itself.

**NOTE:** Halide lamp detector is suitable for locating leaks and for determining extent of aeration down to approximately 50 ppm. It is not suitable for clearing a structure for reentry.

RATES C APPLICATION -- METHYL BROM. E 100<sup>(1)</sup>

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COMMODITY	EXAMPLES OF PESTS CONTROLLED	DOSAGE LBS./1000 CU. FT.	EXPOSURE TIME/HOURS	ESTIMATED AERATION/HOURS <sup>4</sup>
Beans and Peas, Dry: For example--Lima, Kidney, Blackeye, Pinto, Cow Peas	Indian Meal Moth Almond Moth, Cow Pea Weevil	2 3	24 24	12
Candy	Indian Meal Moth, Saw-toothed Grain Beetle	1 - 2	12 - 24	24
Cocoa Beans	Tobacco Moth, Saw-toothed Grain Beetle	1-1/2	12 - 24	12
Fruits, Dried: For example--Apple, Apricot, Date, Fig, Peach, Pear, Prune, Raisins	Indian Meal Moth Almond Moth, Dried Fruit Beetle, Saw-toothed Grain Beetle	1-1/2 1	12 - 24	
Flour and Cereal Products (bulk, bags, packages)	Flour Beetles, Indian Meal Moth, Saw-toothed Grain Beetle	1 - 2	12 - 24	24
Grain and Shelled Corn	Indian Meal Moth, Granary Weevil, Angoumois Grain Moth	2	24	12
Barley, Oats, Rice, Rye, Wheat <sup>1</sup>	Flour Beetles, Rice Weevil, Saw-toothed Grain Beetle	3	24	
Grain Sorghum (Milo) <sup>1</sup>	Lesser Grain Borer, Granary Weevil, Indian Meal Moth	4	24	
Nuts: Almond, Brazil, Macadamia, Filbert, Chestnut, Pecan, Hickory, Pistachio, Cashew, Walnut	Naval Orange Worm, Almond Moth, Dried Fruit Beetle	3-1/2	12 - 24	24
Processed Foods	Saw-toothed Grain Beetle, Cigarette Beetle, Indian Meal Moth	1 - 2	12 - 24	
Tobacco-- Atmospheric: Vacuum Chamber:	Tobacco Moths, Tobacco Beetle	2 4	48 - 72 4	24 4
Hay (Alfalfa)	Saw-toothed Grain Beetle, Angoumois Grain Moth	2	16 - 24	24
Lumber	Lyctus or Powder Post Beetle	2	24 - 36	12
Miscellaneous--Such as: Burlap Bags, Wood Stakes	Indian Meal Moth, Lyctus or Powder Post Beetle	3 - 4	24	
Cotton and Cotton Seed-- Tarpaulin Fumigation: Vacuum Chamber:	Indian Meal Moth, Cigarette Beetle	3 4	24 4	12 - 24 4
Dog Feed	Indian Meal Moth, Cigarette Beetle	1 - 2	12 - 24	48
Strawberries	Mites, Thrips	3	3 - 4	3
Fresh Fruits, Vegetables <sup>2, 3</sup>	Fruit Flies	1 - 4	3	4 - 24

1. Use forced recirculation for bulk bins.
2. Fumigate only fruits and vegetables for which tolerances have been established.
3. Tolerance of fruit to methyl bromide may vary with variety of fruit. Check with local authorities or Cardinal Professional Products for additional information.
4. Only an estimation; length of aeration will depend on factors such as commodity type, packaging and temperatures. Aeration could be shorter or longer than recommendations.



SPACES CONTAINING COMMODITIES	EXAMPLES OF PESTS CONTROLLED	DOSAGE <sup>1,2</sup> LBS./1000 CU. FT.	EXPOSURE TIME/HOURS	ESTIMATED AERATION/HOURS <sup>3</sup>
Buildings, Warehouses, Flour Mills, Food Processing Plants	Indian Meal Moth, Warehouse Beetle, Saw-toothed Grain Beetle			
Spaces Containing Commodities-- Less than 100,000 cu. ft.		1 - 3	16 - 24	12
100,000 - 500,000 cu. ft.		1 - 2	16 - 24	12
> 500,000 cu. ft.		1 - 2	16 - 24	12

1. These dosages are for insect control. For rodents, bats, moles, and other warm blooded animals, 1/4 lb./1000 cu. ft. with 6 hours exposure should be sufficient.
2. At temperatures below 60° F (15.5° C) the dosages should be increased by 1/2 lb. (227 grams) per 1000 cu. ft. (28.3 cu. meters) for every 10° F (5.5° C) drop in temperatures.
3. Only an estimation; length of aeration will depend on factors such as commodity type, packaging and temperatures. Aeration could be shorter or longer than recommendations.

MISCELLANEOUS	EXAMPLES OF PESTS CONTROLLED	DOSAGE <sup>2</sup> LBS./1000 CU. FT.	EXPOSURE TIME/HOURS	ESTIMATED <sup>1</sup> AERATION/HOURS
Steel	Saw-toothed Grain Beetle, Flour Beetle, Indian Meal Moth	3 - 3-1/2	16 - 24	4
Wood	Saw-toothed Grain Beetle, Flour Beetle, Indian Meal Moth	3-1/2 - 4-1/2	16 - 24	4
Vans, Trailers, Rail Cars <sup>3</sup>	Saw-toothed Grain Beetle, Flour Beetle, Indian Meal Moth	1 - 3	16 - 24	4
Vacuum Chambers	Saw-toothed Grain Beetle, Flour Beetle, Indian Meal Moth	1 - 2	2 - 4	4
Cargo Ships [Do not fumigate underway.]	Saw-toothed Grain Beetle Flour Beetle Indian Meal Moth	1 1 1-1/2	10 12 12	

1. Aeration time can be shortened if the fumigated area is determined to be free of Methyl Bromide by a suitable Methyl Bromide detector. If no aeration time is given in table, a suitable Methyl Bromide detector must be used to determine when aeration is completed. Aerate products 48 hours before offering to consumer.
2. At temperatures below 60° F (15.5° C) the dosages should be increased by 1/2 lb. (227 grams) per 1000 cu. ft. (28.3 cu. meters) for every 10° F (5.5° C) drop in temperatures.
3. Do not move trucks, vans, or trailers on roadways during fumigation. They must be completely aerated before movement is allowed. Transfer of containerized commodities under fumigation onto and off of ships is permissible.

(1) Consult APHIS Treatment Manual for additional treatment conditions and commodities.

**WARRANTY**

Seller warrants that this product conforms to the chemical description on its label and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. Neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product in a manner contrary to its label.

**NOTICE:** Contains methyl bromide, a substance which harms public health and environment by destroying ozone in the upper atmosphere.