

**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.

# **METABROM 100**

## **Fumigant**

<b>ACTIVE INGREDIENT</b>	<b>By Wt.</b>
METHYL BROMIDE.....	<u>100%</u>
<b>TOTAL</b>	<b>100%</b>

**ACUTELY TOXIC CHEMICAL**  
14.4 LBS. Active Ingredient per gal. (LIQUID IN CYLINDER)

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**PELIGRO**



**POISON**

**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.)**

<b>FIRST AID</b>	
<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 poison control center or doctor for 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 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>
Have the product container of label with you when calling a poison control center (1-800-222-1222) or doctor or when 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 additional precautionary statements.*

#### Produced for:

#### ICL-IP America, Inc.

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EPA Reg. No. 8622-16

EPA Est. No. \_\_\_\_\_

#### IN CASE OF EMERGENCY, CONTACT

CHEMTREC: (800) 424-9300 or (703) 527-3887 (Collect calls accepted) [24 Hrs.] or ICL-IP America/Clearon Emergency Response: (304) 746-3000 [24 Hrs.]

AB04-Rev.9

10-21-10

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS DANGER HIGH ACUTE TOXICITY

Extremely hazardous liquid and vapor under pressure. Do not breathe vapor. Inhalation may be fatal or cause serious acute illness or delayed lung or nervous system injury. 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.

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.

#### PROTECTIVE CLOTHING: Applicators and other handlers must wear:

- Loose-fitting or well ventilated long sleeved shirt and long pants
- Shoes and socks
- Full face shield or safety glasses with brow and temple shields (DO NOT wear goggles). When the air concentration level is above 5 ppm and a respirator is required, protect the eyes by wearing a full face respirator.
- Respirator:
  1. No respirator is required if the air concentration of methyl bromide in the working area is measured to be 5 ppm or less.
  2. A respirator is required if the acceptable air concentration level of 5 ppm 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:

1. Do not wear jewelry, gloves, goggles, tight clothing, rubber protective clothing or rubber boots when handling this product. Methyl bromide is heavier than air and can be trapped inside clothing and cause skin injury.
2. If liquid fumigant splashes or spills on clothing or shoes, remove them at once.

3. 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.
4. Discard clothing, shoes and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.
5. Follow PPE manufacturer's instructions for cleaning/maintaining protective eyewear and respirators.

**USER SAFETY RECOMMENDATIONS:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. 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.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to wildlife. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

**PHYSICAL HAZARDS:** Do not use or store near heat, open flames, or sparking electrical equipment.

**CHEMICAL HAZARDS:** Do not use application devices incorporating natural rubber or aluminum, magnesium, zinc or their alloys. The use of liquid methyl bromide with aluminum, magnesium, zinc and alkali metals and their alloys may result in the liberation of toxic gases and possible fire and explosion. In addition, liquid methyl bromide may cause severe corrosion of containers and equipment made of these metals.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a 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 area during application. For any requirements specific to your state or tribe, consult the Agency responsible for pesticide regulation.

**PESTICIDE STORAGE, HANDLING AND DISPOSAL**

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

**PESTICIDE STORAGE AND HANDLING:** Store in a secure manner either outdoors under ambient conditions, or indoors in a well ventilated area. Post as a pesticide storage area.

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

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, either

contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance, or follow registrant's instructions for return of partially empty cylinders. Do not contaminate water, food, or feed by disposal.

**CONTAINER DISPOSAL:** When cylinder is empty, close valve by turning clockwise until hand tight, 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.

**RETURN OF CYLINDERS:**

- (1) Cylinders are the property of the manufacturer or distributor where purchased and must be returned promptly by collect freight.
- (2) Do not ship cylinders without safety caps or valve protection bonnets.
- (3) When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instruction.
- (4) Do not refill containers or use them for any other product or purpose.

**SPECIFIC DIRECTIONS FOR USE**

This fumigant is a highly hazardous material and may 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.

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 purposes other than those described above.

Do not use application devices incorporating natural rubber or aluminum or magnesium or their alloys.

**PRECAUTIONS FOR USAGE for fumigation of raw and processed foods.**

When used for fumigation of enclosed spaces containing raw and processed foods such as warehouses, grain bins or elevators, vaults, chambers, 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 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 commodity temperature is below 40°F.

**Placarding Required:** 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.

Do not allow entry by unprotected persons into the fumigated area until signs are removed. Do not remove a placard until the treated commodity or area is completely aerated. To determine whether aeration is complete, each fumigated site or vehicle must be monitored and shown to contain less than 5 ppm methyl bromide in the air space around and, when feasible, in the mass of the commodity. If less than 5 ppm methyl bromide is detected, the placard may be removed. However, if 5 ppm or greater methyl bromide is detected the placard must be transferred with the commodity to the new site. Workers who transfer or handle incompletely aerated commodity must be informed and appropriate measures must be taken (i.e. ventilation or respiratory protection) to prevent exposures from exceeding 5 ppm or greater of methyl bromide.

**Respiratory Protection:** If the concentration of methyl bromide in the working area, as measured by a direct-reading detector device (e.g., Draeger), does not exceed 5 ppm (20 mg/m<sup>3</sup>), no respiratory protection is required.

If this concentration is exceeded at any time, all persons in the working area must wear protective clothing and a NIOSH/MSHA approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator.

**Aeration and Reentry:** After fumigation, treated areas must be aerated until the level of methyl bromide is below 5 ppm. Do not allow entry into the treated area by any person before this time unless protective clothing and a respiratory protection device (SCBA or combination air-supplied/SCBA) is worn.

**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 5 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 of 1000 lbs. is exceeded.

### **COMMODITY FUMIGATION INSTRUCTIONS**

**Dosage:** The usual dosage rate for each 1,000 cu. ft. will range from 1 to 6 lbs., 12 to 24 hours exposure, depending on tightness of structure and kind and amount of commodity in storage.

**Rats and Mice:** Metabrom 100 applied by this treatment will kill rats and mice that are exposed to the gas.

See appropriate table for rates of application and exposure times.

**TABLE I**  
COMMODITY AND DOSAGE RATE

FOR STORED PRODUCTS PESTS INFESTING RAW AGRICULTURAL  
COMMODITIES (NOT PROCESSED FOOD)<sup>1</sup>

Commodity	Insects Controlled	Tolerance (ppm)	Dosage (lbs./1000 cu. ft.)	Exposure Time (hrs.)
Almonds	Confused flour beetle, saw toothed grain Beetle, dermestids, Indian meal moth, rice weevil, Khapra beetle, drugstore beetle, cigarette beetle, warehouse moth, rusty grain beetle, cadelle, groundnut bruchid.	200	3.5	24
Brazil Nuts		200	3.5	24
Bushnuts		200	3.5	24
Butternuts		200	3.5	24
Cashews		200	3.5	24
Chestnuts		200	6	6
Chestnuts		200	3.5	24
Filberts		200	3.5	24
Hickory Nuts		200	3.5	24
Peanuts		200	3.5	24
Pecans		200	3.5	24
Pistachio nuts		200	3.5	24
Walnuts		200	3.5	24
Apples		Oriental fruit moth, codling moth, apple maggot, apple curculio, twig borer, melon fruit fly, Mediterranean fruit fly, Oriental fruit fly, cherry fruit fly, brown mite, green peach aphid, scales thrips.	5	5
Apricots	20		5	2
Cherries	20		5	2
Nectarines	20		5	2
Peaches	20		5	2
Pears	5		5	2
Plums	20		5	2
Quinces	5		5	2
Strawberries	60		2-3	3-4
Prunes	Coffee bean weevil, Australian spider beetle, saw toothed and merchant grain beetles, dried fruit beetles, Indian meal moth, confused flour beetle, drugstore beetle, warehouse moth, common grain mite.		20	5
Barley	Granary weevil, lesser grain borer, rusty grain beetle, angoumois grain moth, Indian meal moth, confused flour beetle, rice weevil, saw toothed grain beetle. Lesser grain borer, cadelle, Khapra beetle, drugstore beetle, Australian spider beetle, cigarette beetle, warehouse moth, common grain mite, flat grain beetle, Mediterranean flour moth, red flour beetle, common bean weevil, copra beetle.	50	5	12
Corn		50	2	24
Oats		50	3	24
Popcorn <sup>(a)</sup>		240	1.5	2
Rice <sup>(b)</sup>		50	6	12
Rice		50	3	24
Rye		50	3	24
Rye <sup>(b)</sup>		50	6	12
Sorghum (grain)		50	4	24
Wheat		50	3	24
Copra		100	2.5	24

**Table I, Continued**

<b>Commodity</b>	<b>Insects Controlled</b>	<b>Tolerance (ppm)</b>	<b>Dosage (lbs./1000 cu. ft.)</b>	<b>Exposure Time (hrs.)</b>
Beans (all)	Armyworms, cabbage looper, European corn borer, Japanese beetle, pod borers, Oriental fruit fly, Mediterranean fruit fly, corn earworm green stink bug, sowbugs, spider mites, cabbage maggots, lygus bug, melon aphid, pickelworm, carrot rust fly, stink bug, bean leaf beetle, Mexican bean beetle, diabrotica beetle, cucumber beetle, squash bug, false chinch bug, loopers, symphylans, blister beetles, onion maggot, onion thrips, mealybugs.	50	3.5	24
Beets (roots)		30	3	4
Cabbage <sup>(d)</sup>		50	4	4
Cantaloupe		20	2	2
Carrots		30	4	4
Citron		30	3	2
Cucumbers		30	2.5	4
Eggplant		20	3	4
Honeydew Melons		20	2.5	2
Jerusalem Artichokes		30	3.5	4
Muskmelons		20	2.5	2
Okra <sup>(c)</sup>		30	3.5	2
Onions		20	3	6
Parsnips (roots)		30	3	4
Peas (with Pods)		50	3	2
Sweet Corn		50	3	4
Peppers		30	4	2
Pimentos		30	2.5	3
Pineapples		20	2	4
Potatoes		75	3	6
Pumpkins		20	2.5	2
Radishes		30	3	4
Rutabagas		30	3	6
Squash (summer)		30	4	2
Squash (winter)		20	4	2
Squash (zucchini)		20	2.5	3
Sugar Beets (roots)		30	3	4
Sweet Potatoes		75	3.5	4
Tomatoes		20	3	4
Turnips (roots)		30	3	4
Watermelons	20	2.5	2	
Yams	30	3.5	4	
Cipolin Bulbs	Exosoma lusitanica.	50	4	4
Cocoa Beans <sup>(a)</sup>	Coco moth, cigarette beetle, confused flour beetle, warehouse moth, flat grain beetle, coffee bean weevil.	50	1.5	12
Horseradish (roots)	Baris lepidi.	30	3	4
Garlic	Brachycera spp., duspessa ulula, brown wheat mite, onion maggot, onion thrips	50	3	4
Salsify Roots	Armyworm, flea beetle, leaf hoppers, stink bugs, tarnished plant bug.	30	3	3
Grapefruit <sup>(1)</sup>	Anastrepha spp., proeulia spp., leptoglossus	30	3	2

Grapes	<i>spp., megalometis spp., naupactus spp., listroderes spp., conoderus spp., brevipalpus spp.,</i> ants, aphids, citrus scale, citrus mites, leaf rollers, white flies, thrips, California orange clog, mealybugs, orange tortrix.	20	4	2
Kumquat		30	3	2
Lemons <sup>(1)</sup>		30	3	2
Lime <sup>(1)</sup>		30	3	2
Oranges <sup>(1)</sup>		30	3	2
Tangelos <sup>(1)</sup>		30	3	2
Tangerines <sup>(1)</sup>		30	3	2

Consult APHIS Treatment Manual for additional rates and commodities.

(1) Tolerance of fruit to methyl bromide may vary with different varieties. Check with local authorities or ICL-IP America, Inc. before treating.

(a) Chamber fumigation.

(b) Khapra beetle quarantine.

(c) Pink bollworm quarantine.

(d) Must be used in accordance with the plant quarantine program of the USDA.

**TABLE II  
COMMODITY AND DOSAGE RATE  
FOR PROCESSED FOOD**

Commodity	Insects Controlled	Tolerance (ppm)	Dosage (lbs./1000 Cu. ft.)	Exposure Time (hrs.)
Apples (dried) <sup>(d)</sup>	Saw toothed beetle, merchant beetle, dried fruit beetle, Indian meal moth, confused flour beetle, Australian spider beetle, cigarette beetle, warehouse moth, common, grain mite, coffee bean weevil.	125	1-1 ½	24
Apricots (dried) <sup>(d)</sup>		125	1-1 ½	24
Cherries (dried)		125	1	24
Dates <sup>(d)</sup>		125	1-1 ½	24
Figs (dried) <sup>(d)</sup>		250	1-1 ½	24
Peaches (dried) <sup>(d)</sup>		125	1-1 ½	24
Prunes (dried) <sup>(d)</sup>		125	1-1 ½	24
Raisins (dried) <sup>(d)</sup>		125	1-1 ½	24
Cheese (parmesan and roquefort)		Cheese mite, cheese skipper, cheese maggot	325	1-2
Dried Peas	Granary weevil, lesser grain borer, rusty grain beetle, angoumois grain moth, Indian meal moth, confused flour beetle, rice weevil, saw toothed grain beetle. Lesser grain borer, cadelle, Khapra beetle, drugstore beetle, Australian spider beetle, cigarette beetle, warehouse moth, common grain mite, flat grain beetle, Mediterranean flour moth, red flour beetle, common bean weevil, copra beetle.	125	4	24
Eggs (dried)	Larder beetle.	400	1-2	12-24
Ham Houses	Cheese skipper, larder beetle, red legged ham beetle, mites.	325	1-2	12-24
Processed Foods	Saw toothed beetle, flat grain beetle, flour beetle, cigarette beetle, Indian meal moth.	125	1-2	12-24



**Table II Continued**

<b>Commodity</b>	<b>Insects Controlled</b>	<b>Tolerance (ppm)</b>	<b>Dosage (lbs./1000 Cu. ft.)</b>	<b>Exposure Time (hrs.)</b>
Processed Grain <sup>(a)</sup>	Confused flour beetle, rice weevil, granary weevil, saw toothed grain beetle, rusty grain beetle, lesser grain borer, cadelle, Khapra beetle, drugstore beetle, Australian spider beetle, cigarette beetle.	125	1.5	24
Processed Grain <sup>(b)</sup>	Flour beetle, saw toothed grain beetle, Mediterranean flour moth.	125	1-2	12-24
Processed Grain <sup>(c)</sup>	Flour beetle, grain beetle, mealworms, Cigarette beetle, Indian meal moth.	125	1.5	24
Spices and Herbs (dried)	Saw toothed beetle, flat grain beetle, cigarette beetle, <i>trogoderma spp.</i> , Indian meal moth, dried fruit beetle, Australian spider beetle, warehouse moth, confused flour beetle, rusty grain beetle, lesser grain borer, drugstore beetle.	400	3	12

(a) Corn grits and cracked rice

(b) Processed grain from equipment fumigation

(c) Processed grain used in production of fermented beverages

(d) Use 1 ½ lb / 1000 cu. ft. with temperature between 50-59°F and 1 lb /1000 cu. ft. when over 60°F

**TABLE III  
APPLICATION SUMMARY FOR NON-FOOD PRODUCTS**

<b>Materials and Products</b>	<b>Pests Controlled</b>	<b>Dosage (lbs./1000 Cu. ft.)</b>	<b>Exposure Time (hrs.)</b>
Machinery, packing and bagging material, miscellaneous non-food cargo, (e.g., ceramic, marble, brassware, handicrafts, burlap, appliances)	Woodboring insects, Coleoptera, mites, spiders, snails, cockroaches, Lepidoptera, Hymenoptera	2-6	24-72
Forest and plant products (e.g., lumber, firewood, driftwood, pallets, crates, paper, cardboard, carvings, grapevine wreaths, dried plants, Spanish moss, bamboo and wicker, mulch, etc.)	Pinewood nematode, woodborers, bark beetles, termites, carpenter ants, horntails, old house borer powder post beetles, Hymenoptera, Coleoptera, woodworm, wharf borer, wood wasps, mites, Lepidoptera, psocids	3-6	16-24
Beehives and Beekeeping Equipment, Beeboards	Greater wax moth, mites, insects, diseased and feral bees, Lepidoptera, Coleoptera	1.5-2	16-24

**California Proposition 65 WARNING:** This product contains methyl bromide. When used as a structural fumigant, methyl bromide is known to the State of California to cause birth defects or other reproductive harm.

Warranty; 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, 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 or 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

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