

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY

*For retail sale to and use only by Licensed Applicators, or persons under their direct supervision,
and only for those uses covered by the Licensed Applicator's certification and in accordance with
Provincial Regulations and Local Ordinances.*

TCC METHYL BROMIDE FUMIGANT

A FUMIGANT FOR PREPLANT SOIL APPLICATION, CHAMBER FUMIGATION
AND SPACE TREATMENT TO CONTROL MANY INSECTS, WEEDS,
NEMATODES, AND OTHER SOIL BORNE PESTS.

REGISTRATION No. 19498, PEST CONTROL PRODUCTS ACT
GUARANTEE: Methyl Bromide 100%
Weight: 1.7 Kg/liter



DANGER
POISON

DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.

DO NOT INHALE VAPOURS.

READ THE ENTIRE LABEL AND ATTACHED BOOKLET BEFORE USING.

USE THIS PRODUCT ACCORDING TO LABEL INSTRUCTIONS.

ANY OF THE AUTHORIZED USES UNDER THE PEST CONTROL PRODUCTS ACT
MUST COMPLY WITH APPLICABLE REQUIREMENTS UNDER THE
OZONE-DEPLETING SUBSTANCES REGULATIONS, 1998
UNDER THE AUTHORITY OF THE CANADIAN ENVIRONMENTAL PROTECTION ACT
(CEPA, 1999).
FOR FURTHER INFORMATION, CONTACT ENVIRONMENT CANADA.

Manufactured By:
Trical, Inc.
P.O. Box 1327, Hollister CA 95024-1327

Canadian Agent:
Integrated Pest Control
765 Sixth Street, Suite 102
New Westminster, B.C. Canada V3L 3C6

Net Contents 13.608 / 22.68 / 45.36 79.38 / 149.688 / 163.296 / 680.4 Kg

DIRECTIONS FOR USE

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Product Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

NATURE OF RESTRICTION: This product must be stored away from lodging for humans, animal quarters and normal work areas to avoid inadvertent exposure. Any of the authorized uses under the *Pest Control Products Act* must comply with applicable requirements under the Ozone-depleting Substances Regulations, 1998 under the authority of the Canadian Environmental Protection Act (CEPA, 1999). For further information, contact Environment Canada.

RESTRICTED USES: General space fumigation, enclosed space fumigation, gas tight coverings, seed and plant beds, and turf use.

All persons working with methyl bromide must be trained or licensed in the use of methyl bromide.

PRECAUTIONARY STATEMENTS

DANGER POISON

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.

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONS

- 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.
- ALL PERSONS WORKING WITH METHYL BROMIDE MUST BE TRAINED OR LICENSED IN THE USE OF METHYL BROMIDE AND BE KNOWLEDGEABLE REGARDING THE PROPER USE OF PROTECTIVE EQUIPMENT, DETECTOR DEVICES AND EMERGENCY PROCEDURES.

- Wear NIOSH/MSHA-approved self-contained breathing apparatus (SCBA) or combination air-supplied respirator/SCBA during all operations (introduction of the fumigant, initiation of aeration, after aeration when testing for re-entry, attending to spills and leaks, removing warning signs) until the concentration of methyl bromide is at or below 3 ppm. If a beard or long sideburns interfere with the respirator fit, they must be shaven.
- TCC Methyl Bromide Fumigant may be trapped inside clothing and cause skin injury. Wear a loose fitting long sleeved shirt, long pants, shoes and socks that are cleaned after each wearing. Do not wear protective coveralls, gloves, boots, jewels, and bandages or carry cigarettes, wallets, etc. After exposure, immediately remove clothing, shoes and socks. Do not reuse clothing or shoes until thoroughly washed. Wash all clothing separately from household laundry in detergent and hot water before re-use. If clothing or shoes are extremely contaminated they should be disposed of.
- At least two persons trained or licensed in the use of methyl bromide must be present at the fumigation site during all operations that may involve exposure to methyl bromide.
- Do not allow any person into the treated area until the level of methyl bromide is at or below 3 ppm.
- TCC Methyl Bromide Fumigant has an adverse effect on the ozone layer and is now controlled under the Montreal Protocol. All efforts should be made to prevent emissions and, where feasible, to recover and recycle.
- This product is toxic to fish and wildlife. Keep out of lakes, streams and ponds.
- If this pest control product is to be used on a commodity that may be exported to the U.S., and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: www.croplife.ca

PLACARDING OF FUMIGATED AREAS

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

1. The signal word DANGER and the skull and crossbones symbol.
2. The statement, "Area under fumigation, DO NOT ENTER."
3. The date of fumigation.
4. Name of fumigant used.
5. Name, address, and telephone number of applicator.

The placard should be removed by the applicator only when the concentration of methyl bromide is below detection limits (3 ppm) in the treated area,

FIRST AID

- **IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.

Call a poison control centre or doctor for further treatment.

- IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
- IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
- Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

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. Nausea and vomiting are most distressing symptoms and require an anti-emetic drug such as Compazine or Thorazine. Support of the respiratory system dictates a semi-reclining position, maintenance of airway and possible tracheotomy. Oxygen should be used. If respiration fails, artificial respiration by an appropriate means may be necessary. Central nervous system effects are extremely difficult to control. Hyper-excitability and convulsions may require parenteral barbiturates such as Pentothal. Respiratory depression must be guarded against. Circulatory failure may be combated by intravenous solutions and levarterenol bitartrate. Burns resulting from skin contact with the liquid material should be treated in a manner similar to thermal burns following decontamination.

SPILL AND LEAK PROCEDURES

- Evacuate immediate area of spill or leak. Use a NIOSH/MSHA-approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Allow spill to evaporate. Do not permit entry into spill area by persons without appropriate respiratory protection, until concentration of methyl bromide is determined to be less than 3 ppm.
- Remove leaking containers to an isolated area and cover with a polyethylene sheeting of 6 mil or greater thickness. Seal by placing the outside edges of tarpaulin in a trench and cover with soil. Tamp soil down so edges will not pull loose. Discharge the contents under the tarpaulin.
- Contaminated soil, water, and other cleanup debris is a toxic hazardous waste. For information on the cleanup of spills, contact the provincial regulatory agency and CHEMTREC (1-800-424-9300).

STORAGE AND HANDLING

- Store in a locked, dry, cool, well-ventilated area. 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.
- Cans and 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.

DISPOSAL

1. **PRODUCT:** Pesticide wastes are toxic. Open dumping is prohibited. Do not discharge this product, or material containing this product, into natural waterways or municipal wastewater collection systems. For information on the disposal of unused, unwanted product, contact the provincial regulatory agency and Trical, Inc. (1-831-637-0195).

2. **CYLINDERS:** When cylinder is empty, close valve, screw safety cap onto valve outlet, and replace protection bonnet before returning to shipper. Only the registrant, or his designee, is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to the Trical, Inc. location from which shipment was made. 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.

3. **CANS:** Do not reuse empty cans. Close valve by turning clockwise until hand tight. Disconnect lines. Dispose of the cans in accordance with provincial requirements.

T.D.G.A. SHIPPING DIRECTIONS

Shipping of full cylinders must be accompanied by a Dangerous Goods Bill of Lading with the proper shipping name: Methyl Bromide, Class 2.3 UN 1062, Poison-Inhalation Hazard, Hazard Zone C. Any quantity requires placarding. Return of empty cylinders must be accompanied by a Bill of Lading with the proper shipping name: Empty Void Last Contained Class 2.3 UN 1062. Note: Full or empty containers of methyl bromide may not be transported in a passenger vehicle (car, van, etc.), where the passenger seating area is not separated from the pesticide storage area.

STATEMENT OF WARRANTY AND LIABILITY

Seller warrants that this product complies with the specifications expressed in this label. SELLER'S GUARANTEE SHALL BE LIMITED TO THE TERMS SET OUT ON THE LABEL AND, SUBJECT THERETO, THE BUYER ASSUMES THE RISK TO PERSONS OR PROPERTY ARISING FROM THE USE OR HANDLING OF THIS PRODUCT AND ACCEPTS THE PRODUCT ON THAT CONDITION. Seller's liability for default, breach or failure under this label shall be limited to the amount of the purchase price. Seller shall have no liability for consequential damages.

September 14, 2004

METHYL BROMIDE
UN 1062
INHALATION HAZARD

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY

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4. Name of fumigant used.
5. Name, address, and telephone number of applicator.

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FIRST AID

- **IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.

- Call a poison control centre or doctor for further treatment.
- IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
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 - Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

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. Nausea and vomiting are most distressing symptoms and require an anti-emetic drug such as Compazine or Thorazine. Support of the respiratory system dictates a semi-reclining position, maintenance of airway and possible tracheotomy. Oxygen should be used. If respiration fails, artificial respiration by an appropriate means may be necessary. Central nervous system effects are extremely difficult to control. Hyper-excitability and convulsions may require parenteral barbiturates such as Pentothal. Respiratory depression must be guarded against. Circulatory failure may be combated by intravenous solutions and levarterenol bitartrate. Burns resulting from skin contact with the liquid material should be treated in a manner similar to thermal burns following decontamination.

SPILL AND LEAK PROCEDURES

- Evacuate immediate area of spill or leak. Use a NIOSH/MSHA-approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator for entry into affected area to correct problem. Allow spill to evaporate. Do not permit entry into spill area by persons without appropriate respiratory protection, until concentration of methyl bromide is determined to be less than 3 ppm.
- Remove leaking containers to an isolated area and cover with a polyethylene sheeting of 6 mil or greater thickness. Seal by placing the outside edges of tarpaulin in a trench and cover with soil. Tamp soil down so edges will not pull loose. Discharge the contents under the tarpaulin.
- Contaminated soil, water, and other cleanup debris is a toxic hazardous waste. For information on the cleanup of spills, contact the provincial regulatory agency and CHEMTREC (1-800-424-9300).

STORAGE AND HANDLING

- Store in a locked, dry, cool, well-ventilated area. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage. Store cans and cylinders upright, secured to a rack or wall to prevent tipping.
- Cans and 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.

DISPOSAL

1. **PRODUCT:** Pesticide wastes are toxic. Open dumping is prohibited. Do not discharge this product, or material containing this product, into natural waterways or municipal wastewater collection systems. For information on the disposal of unused, unwanted product, contact the provincial regulatory agency and Trical, Inc. (1-831-637-0195).

2. **CYLINDERS:** When cylinder is empty, close valve, screw safety cap onto valve outlet, and replace protection bonnet before returning to shipper. Only the registrant, or his designee, is authorized to refill cylinders. Do not use cylinders for any other purpose. Return empty cylinders freight prepaid to the Trical, Inc. location from which shipment was made. 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.

3. **CANS:** Do not reuse empty cans. Close valve by turning clockwise until hand tight. Disconnect lines. Dispose of the cans in accordance with provincial requirements.

T.D.G.A. SHIPPING DIRECTIONS

Shipping of full cylinders must be accompanied by a Dangerous Goods Bill of Lading with the proper shipping name: Methyl Bromide, Class 2.3 UN 1062, Poison-Inhalation Hazard, Hazard Zone C. Any quantity requires placarding. Return of empty cylinders must be accompanied by a Bill of Lading with the proper shipping name: Empty Void Last Contained Class 2.3 UN 1062. Note: Full or empty containers of methyl bromide may not be transported in a passenger vehicle (car, van, etc.), where the passenger seating area is not separated from the pesticide storage area.

DIRECTIONS FOR USE

It is a violation of the P.C.P. Act to use this product in a manner inconsistent with its labeling.

THIS FUMIGANT IS A HIGHLY HAZARDOUS MATERIAL AND MUST BE USED ONLY BY INDIVIDUALS TRAINED OR LICENSED IN ITS PROPER USE. BEFORE USING, READ AND OBEY ALL LABEL AND LABEL BOOKLET PRECAUTIONS AND DIRECTIONS. ALL PERSONS WORKING WITH THIS FUMIGANT MUST BE KNOWLEDGEABLE ABOUT THE HAZARDS, AND TRAINED OR LICENSED IN THE USE OF REQUIRED RESPIRATOR EQUIPMENT AND DETECTOR DEVICES, EMERGENCY PROCEDURES, AND PROPER USE OF THE FUMIGANT.

PRECAUTIONARY PROCEDURES

- Many pesticide chemicals are poisonous and may leave a toxic residue in the area to which they are applied. Health Canada has established maximum residue limits of such pesticide chemicals that may remain on raw agricultural products, and it is the user's responsibility to see that there is no residue on such crops in excess of these amounts. The

"Directions for Use" are based on the best available information, and if followed carefully, should not leave excessive residues. The following precautionary procedures must be followed for all uses:

- When used for general space fumigation (e.g. warehouses, grain elevators, and food processing plants), enclosed spaces (e.g. vaults, bins, vacuum chambers, chambers, tractor trailers, buses, ships, vans, silos, and railroad cars) and gas tight coverings (e.g. tarpaulin-covered commodities), two persons trained or licensed in the use of this product must be present during introduction of the fumigant, 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 below 5° C except in the case of Christmas tree fumigation (see Table II).
- When using TCC Methyl Bromide Fumigant, placard or post all entrances to the fumigated area with warning signs in accordance with provincial regulations.
- Do not remove a placard until the treated commodity is completely aerated. To determine whether aeration is complete, each fumigated site or vehicle must be monitored and shown to contain less than 3 ppm methyl bromide in the air space around and, when feasible, in the mass of the commodity. Since methyl bromide is heavier than air, the monitoring should take place in low areas; i.e., floor level, behind electrical plates, desk drawers, closets. If less than 3 ppm methyl bromide is detected, the placard may be removed.

SPACE AND STRUCTURAL FUMIGATION

APPLES, APPLES (DRIED), APRICOTS, APRICOTS (DRIED), BEANS, BEETS, BULBS (OF ORNAMENTAL PLANTS), CARROTS, CHERRIES, CIPOLLINE BULBS, CITRUS, CITRONS, CLOTHING, COCOA BEANS, CORN (IN HUSK), COTTONSEED, CUCUMBERS, DATES (DRIED), EGGPLANTS, FIGS (DRIED), GARLIC, GRAPES, GRAPEFRUIT, HORSERADISH, JERUSALEM ARTICHOKE, KUMQUATS, LEMONS, LIMES, MELONS (CANTALOUPE, HONEYDEW MELONS, MUSKMELONS, WATERMELONS), NECTARINES, NUTS, OKRA, ONIONS, ORANGES, PARSNIPS, PEACHES, PEACHES (DRIED), PEARS, PEARS (DRIED) PEAS, PEAS (BLACK EYE), PEPPERS, PIMENTOS, PINEAPPLES, PLUMS, POTATOES, PRUNES (DRIED), PUMPKINS, QUINCES, RADISHES, RAISINS, RICE, SALSIFY, SQUASH (SUMMER, WINTER, ZUCCHINI), SUGAR BEETS, SWEET POTATOES, TANGELOS, TANGERINES, TOMATOES, TURNIPS, YAMS.

PESTS CONTROLLED

Alfalfa Weevil, *Anastrepha* spp., Angoumois grain moth, ants, aphids, apple curculio, apple ermine moth, apple maggot, army worms, *Baris lepidi*, bean leaf beetle, bean weevils, blister beetle, blueberry maggot, boll weevil, *Brachycera* spp., *Brevipalpus* spp., brown wheat mite, bruchids, cabbage looper, cabbage maggot, cadelle beetle, California orange dog butterfly, carob moth, carpet beetle, carrot rust fly, cereal leaf beetle, cheese maggot, cheese mite, cheese skipper, cherry fruit fly, cigarette beetle, citrus mite, cockroaches, cocoa moth, codling moth, Colorado potato beetle, common grain mite, confused flour beetle, *Conoderus* spp., copra beetle, corn earworm, cucumber beetle, darkling beetle, dermestids, diabrotica beetle, dried fruit beetle,

drugstore beetle, *Dyspessa ulula*, earwigs, European corn borer, *Exosoma lusitanica*, granary weevil, fabric pests, false chinch bug, flatgrain beetle, flies, fruit flies, fungus beetle, hessian fly, house fly, Indian Meal moth, Japanese beetle, khapra beetle, larder beetle, leaf hoppers, leaf rollers, *Leptoglossus spp.*, lesser grain borer, *Listroderes spp.*, lygus bug, meal worms, mealy bugs, Mediterranean flour moth, Mediterranean fruit flies, *Megalometis spp.*, melon fruit flies, merchant grain beetle, mites, molds, *Naupactus spp.*, nematodes, onion maggot, orange tortix moth, oriental fruit fly, oriental fruit moth, pecan weevil, *Pectinophora spp.*, pepper maggots, pickle worm, pink boll worm, pill bugs, plant pathogens, pod borers, potato beetle, *Proeulia spp.*, psyllids, red flour beetle, red legged ham beetle, rice weevils, rusty grain beetle, sawtoothed grain beetle, scale insects, slugs, snails, snakes, snout-nose weevil, sowbugs, spider beetle, spider mites, squash bugs, squash vine borer, strawberry root weevil, stink bug, tarnish plant bugs, termites, thrips, tobacco beetle, tobacco moth, twig borer, warehouse beetle, warehouse moth, weevils, white fly, wood destroying beetles.

EFFECTIVE FUMIGATION

(SPACE, STRUCTURAL, AND TRANSPORTATION FUMIGATION USE)

CONCENTRATION TIMES TIME PRODUCT: For TCC Methyl Bromide Fumigant to be effective, it is necessary to maintain a specific concentration of the gas within the confined space. In order to meet this requirement, the dosage of methyl bromide must be monitored to establish a concentration times time (C x T) product. For example, it is known that in order to kill 99 percent of the Cadelle beetle larvae in stored grain at 20° C a concentration of 33.2 mg/L times 5 hours equals 166 mg/L X hours, which is the C x T product (also expressed as 166 gram hours/cubic meter). By monitoring the methyl bromide levels during the fumigation and plotting these levels as a function of time, a cumulative C x T product can be obtained by integrating the area beneath a curve. It is only by monitoring the methyl bromide during the fumigation that it is possible to assure that the correct levels of fumigant are present.

MONITORING EQUIPMENT: A method of properly detecting potential fumigant leaks, and of making a quantitative determination of the methyl bromide concentration within a structure during fumigation and outside a structure during aeration is required during the use of TCC Methyl Bromide Fumigant as a space fumigant. A halide leak detector is suitable for determining leaks around doors, windows and other difficult to seal areas, but is unsuitable for quantitative determination or assessing safe re-entry. Thermal conductivity analyzers or meters, when properly calibrated, are suitable for monitoring methyl bromide levels during the fumigation in order to obtain a cumulative C x T product. Interference refractometers and infrared analyzers can also be used for this purpose. Gas detector tubes are available that measure low level concentrations of methyl bromide gas but are considered inaccurate below 3 ppm. Portable gas chromatograph units provide accurate quantitative analysis of indoor levels in order to determine safe reentry and for monitoring outdoor levels during aeration in order for the fumigator to control unacceptable levels of methyl bromide from moving to inhabited areas.

GENERAL SPACE FUMIGATION

(SPACE, STRUCTURAL, AND TRANSPORTATION FUMIGATION USE)

A. WAREHOUSE, GRAIN ELEVATOR, FOOD PROCESSING PLANT, RESTAURANT: All precautionary procedures as outlined previously must be followed: Check with appropriate

provincial, municipal and county authorities before fumigating to be completely familiar with local regulations. Ordinances may require watchmen or locks during fumigation and/or notification of the nearest fire station and police department.

1. PREPARATION FOR FUMIGATION:

Remove the following items from the structure to be fumigated: (1) all food and feed commodities not included in Table I and II; (2) medicinals not sealed in metal or glass; (3) seeds, bulbs and live plants; (4) pets (including fish and birds); (5) furs; (6) horsehair articles; (7) rubber goods (natural latex); (8) carbonless carbon forms and blueprints; (9) automobiles; (10) cinder blocks; (11) articles containing sulfur; (12) iodized salt; (13) leather goods; (14) charcoal; (15) photographic chemicals; (16) any foods or materials that contain reactive sulfur compounds. Do not fumigate unfinished basements (cinder blocks) in dwellings. TCC Methyl Bromide Fumigant liquid reacts with aluminum in the absence of oxygen to form methyl aluminum bromide which, in the presence of oxygen, ignites spontaneously with the development of intense heat.

Extinguish all open flames including pilot rights. Turn off electric heating elements. Open all interior doors, openings into attics and crawl spaces. Open cabinet doors and drawers. Employ ventilation, such as fans, when tarpaulins are used.

2. SEALING THE BUILDING:

The most important part of the fumigation is the preparation and sealing of the structure. A thorough sealing job is necessary. It is not recommended to fumigate under windy conditions. Sealing of the building begins with the closing of all external openings to the building. Wrap roof ventilators, chimneys and other large openings with a tarpaulin or plastic sheet and seal with duct or other appropriate tape. Screened openings may also be sealed with a wide, commercial duct or masking tape. Cleaning of the surfaces to be taped and the use of commercial spray-on adhesives will improve sealing.

For masonry or metal structures, seal all cracks and other air leaks with caulking material or tape, and seal cracks around doors, windows, vents and other openings. Wooden structures and others that cannot be readily sealed may be completely enveloped with an impervious tarpaulin. Seal securely all seams between tarps and seal the lower edges of the tarp to the ground with moist soil or with sand or water snakes. To prevent escape of gas through the ground and to avoid injury to nearby plants, wet the soil to a depth of 15 cm for a distance of .3 m outward from the edge of the tarp.

Exterior doors and windows should be wedged tight, locked and sealed. Large exterior doors may require additional efforts to seal properly. Broken windowpanes should be replaced. Check for cracks around the eaves, in the floor and roof, and seal them.

Special care should be taken to seal off adjacent areas in a building that are not to be fumigated. Adjoining buildings sharing a common wall should be cleared of occupants before fumigation and area monitored for methyl bromide prior to re-entry.

Doors or hatches on milling machinery should be opened prior to fumigation. These include elevator boots, conveyor lids, setting chamber doors, dust trunks, and other openings that will allow fumigant into the equipment. Inside doors, cabinets, lockers and drawers should also be opened to facilitate treatment and aeration. "Dead" spouts are particularly difficult to penetrate and should be opened before the fumigation.

3. FUMIGATING THE STRUCTURE - INSIDE RELEASE:

Inside release is a dangerous method of application. It is strongly advised that outside release methods be used whenever possible. Cylinders should be placed by a team of two people and the location of each cylinder in the building should be mapped.

The cylinders should be arranged so that the fumigators can walk away from the released gas as they open each subsequent cylinder.

Because methyl bromide is heavier than air, it is advisable to increase slightly the amount of fumigant released on the top floor. Cylinders should be placed within a room for best distribution into all areas. Cylinders should be placed in an upright position and the shipping caps removed.

Because Methyl bromide is heavier than air, it is sometimes advisable to attach standpipes or swirllets (or curved pipes directed slightly upward) to the cylinder valves in order to reduce stratification at lower levels. If standpipes are used, they should be equipped "T" fittings to direct the gas laterally and to prevent direct contact with the ceiling.

Fans are recommended to distribute methyl bromide more quickly and to aid in aeration of the structure after the exposure period. The choice of fan for a given situation may depend upon experience or research data. Generally, one 40 cm fan for every 1,400 m³ of space will be sufficient. It is often possible to use heating system fans or other installations already in the building for improved circulation or distribution of methyl bromide. All fans should be running while the gas is being released, and left running until uniform distribution has been accomplished. They may be turned off from outside the building or by using timers.

Prior to fumigation, extinguish all open flames and turn off all high temperature electrical equipment including laboratory ovens, pilot lights, gas refrigerators, oil burners, etc. TCC Methyl Bromide Fumigant in the presence of intense heat from such sources may generate some hydrobromic acid, which may be injurious to commodities and equipment.

Place warning signs or placards on all entrances to the building. Signs and placards should conform to all local, provincial and federal regulations. It is best to inform police, fire and health officials that a fumigation process is about to begin and may be required under provincial regulations. Observe the location of the nearest outside telephone for use in case of an emergency.

Practice or review the shooting procedure so that the operation will be done efficiently and safely. Respiratory protection equipment should be checked for leaks and other problems before the "practice session." While wearing respiratory protection, quickly open and close the cylinder valves to make certain they are in working order and, thus, avoid delay during the actual release. Opening or "cracking" cylinders should be conducted outside.

Fumigators should not be in the building longer than 30 minutes while releasing the gas. If it is impossible for one crew to do it within this time period, additional experienced crews should be used. Two people should work together while the gas is being released and when clearing the structure.

Fumigators should always ensure that no other person is in the building and they should remain in sight of each other from the time they open the first cylinder until the time they leave the building together. While methyl bromide is being released, it is advisable to have additional people with respiratory protection equipment ready, waiting outside to assist if necessary. One member of the team should record the release of methyl bromide from each cylinder so that none are missed. Lock and seal the last exit. If guards are used, they should remain on duty during

release, exposure, and aeration periods to prevent unauthorized entry and may be required under provincial regulations. The master fumigator or person in charge should remain at the fumigation site for one hour following release of the fumigant.

4. FUMIGATING THE STRUCTURE - OUTSIDE RELEASE:

Releasing methyl bromide from outside the space to be fumigated is possible in some situations and will minimize applicator exposure to the fumigant. Prepare the building as outlined previously.

Secure the ends of each "shooting" line or hose to each point where TCC Methyl Bromide Fumigant is to be released, using evaporating pans or plastic sheeting to prevent possible damage to some surfaces. Run each line to the cylinder(s) located outside the area to be treated. Connect each line to the cylinder(s) or manifold.

Lock and seal the last exit. If guards are used, they should remain on duty during release, exposure, and aeration periods to prevent unauthorized entry and may be required under provincial regulations.

Open the valves to release the methyl bromide. Respiratory protection equipment must be available in the event of a major leak or equipment failure.

5. AERATING THE BUILDING:

When the exposure period is complete, aeration generally should be started by opening previously sealed doors and windows on the ground floor. Ensure that appropriate respiratory equipment is worn during the procedure. Ventilators accessible from the outside should be opened at this time.

After partial aeration, a team of at least two licensed people with appropriate respiratory protection (i.e., SCBA) should begin opening windows, starting at the lower floors and working upward. Fans should be on to assist aeration. Refer to Tables I and II for appropriate aeration times. No one should be allowed inside the building without respiratory protection until the methyl bromide concentration is at or below 3 ppm in the worker area. After the aeration is completed, the licensee or master fumigator shall use a detector device with a minimum detection limit of three parts per million to measure air levels of methyl bromide after the structure has been closed. Additionally, measurements shall be taken periodically from low-lying areas; i.e., interior electrical outlets, desk drawers, and closets by inserting the monitoring apparatus in the enclosed space. If the level of methyl bromide is greater than three parts per million, aeration of the structure should be continued until such time as levels measured do not exceed three parts per million.

Contact the police, fire, and health officials previously notified of the fumigation and inform them that it has been completed. Remove all placards or warning signs.

ENCLOSED SPACES

(SPACE, STRUCTURAL, AND TRANSPORTATION FUMIGATION USE)

B. CHAMBER AND VAULT FUMIGATION: ALL PRECAUTIONARY PROCEDURES AS OUTLINED PREVIOUSLY MUST BE FOLLOWED.

Load the chamber with the material to be fumigated, close exhaust ports, turn on circulating fan and close chamber door. Determine the proper rate of application and exposure time from Tables I and II.

Introduce methyl bromide into the chamber by releasing it into the air stream in front of a blower or fan, passing it through a vaporizer, or allowing it to evaporate from a shallow pan. All controls should be outside the chamber.

At the end of the exposure period, aerate by opening the exhaust port, turning on the exhaust fan and opening the chamber door slightly or an inlet port to permit fresh air to enter. At the end of the aeration period, check the methyl bromide concentration with a detection device before allowing unprotected persons to enter the chamber.

C. VACUUM CHAMBER FUMIGATION: ALL PRECAUTIONARY PROCEDURES AS OUTLINED PREVIOUSLY MUST BE FOLLOWED.

1. Place articles to be fumigated in the steel chamber and draw the vacuum down to 63.5 cm-68.5 cm (25-27 inches) Hg.
2. Release methyl bromide into the chamber (usually through a heating unit to insure complete vaporization).
3. See Tables I and II for specific articles, rates of application, and exposure times.
4. At the end of the exposure time, release the vacuum and change the air in the chamber at least two times. A vacuum of 38 cm (15 inches) Hg should be drawn for this purpose. After purging the chamber, check the methyl bromide concentration with a monitoring apparatus before allowing unprotected person(s) to enter.

D. RAILROAD CAR, TRUCK, VAN, TRACTOR TRAILER, BUS, OR SEA CONTAINER:

ALL PRECAUTIONARY PROCEDURES AS OUTLINED PREVIOUSLY MUST BE FOLLOWED.

1. Railroad car should be placed on seldom used track or siding so that it will not be moved while under fumigation. Park trailer, van, truck, or bus out of traffic area, if possible, on the lee side of a building to protect from winds. It is not recommended to fumigate while strong winds are blowing. Do not treat a tractor-trailer, truck van, or bus in a garage or other structure.
2. Seal the offside door, ventilators and other openings. Seal from the inside, if possible.
3. Secure a perforated tube with the end closed, to the ceiling to distribute fumigant evenly, or use evaporating pan(s). Always apply methyl bromide from outside the vehicle.
4. Seal the door, lock and placard vehicle.
5. Consult Tables I and II for specific articles, rates of application and exposure times.
6. For railroad car, truck van or bus, open the unit and aerate 1 to 1-1/2 hours after the appropriate exposure. Reseal vehicle for 1 hour to allow for possible desorption of gas from seats and insulation material. Re-sample fumigated area to verify if levels are at or below 3 ppm. Repeat above aeration procedure until levels are at or below 3 ppm. The vehicle must be aerated to a level at or below 3 ppm before movement is allowed. **DO NOT MOVE VEHICLES DURING FUMIGATION.** Remove placard after aeration is complete.

E. SHIPBOARD, IN-TRANSIT SHIP, OR SHIPHOLD FUMIGATION:

IMPORTANT - SHIPBOARD, IN-TRANSIT SHIP OR SHIPHOLD FUMIGATION IS ALSO GOVERNED BY THE CANADIAN COAST GUARD REGULATIONS. REFER TO AND COMPLY WITH THOSE REGULATIONS PRIOR TO FUMIGATION.

NO PERSON SHALL FUMIGATE IN-TRANSIT OR PERMIT FUMIGATION IN-TRANSIT IN A CANADIAN FLAG SHIP.

PREFUMIGATION PROCEDURES:

1. Prior to commencement of in-transit cargo fumigation, the Canadian Coast Guard must be pre-notified and approval is required by the flag administration of the vessel in question. Prior to fumigating a vessel for in-transit 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 must not be fumigated unless all crewmembers are removed from the vessel. The crewmembers must not be allowed to reoccupy the vessel until the vessel has been aerated to 3 ppm or below 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: (1) relating to the use of respiratory protection equipment; (2) relating to the use of detection equipment; and (3) 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 fumigation, or until a manned vessel leaves port or the cargo is aerated, the person in charge of the fumigation shall ensure that a qualified person, using a gas monitoring apparatus, tests spaces for methyl bromide leakage.

If leakage of methyl bromide is detected, the person in charge of the fumigation shall take action to correct the leakage, or inform the master of the vessel or his representative of the leakage so that corrective action can be taken.

Using appropriate gas monitoring equipment (e.g., low range gas detector tubes, portable gas chromatograph, thermal conductivity analyzer), monitor spaces adjacent to areas containing fumigated cargo and all regularly occupied areas for methyl bromide leakage. If leakage above 3 ppm 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, wear a NIOSH-MSHA-approved self-contained breathing apparatus (SCBA) or combination air-supplied/SCBA respirator (personal protection equipment).

If necessary to enter a fumigated area, at least two persons should enter wearing the required breathing apparatus, and at least one other person wearing personal protective equipment should be available to assist in case of an emergency for each person entering the space. Never enter fumigated area alone. At least one other person wearing personal protection equipment should be available to assist in case of an emergency.

If necessary to enter holds prior to discharge, test spaces directly above cargo surface for methyl bromide concentration, using appropriate gas monitoring apparatus and while wearing personal

protection equipment. Do not enter without respiratory protection unless methyl bromide concentrations are at or below 3 ppm as indicated by a suitable detector.

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 there be on board the vessel during the voyage: (1) at least four NIOSH/MSHA-approved self-contained breathing apparatus (SCBA) and four additional air bottles or combination air-supplied/SCBA respirators are required; (2) two gas detection devices (when these devices require rearming after use, the ship shall be equipped with 10% more spare tubes than are required to conduct the required testing for the duration of the voyage); and (3) a person qualified in their operation. It should be noted that no person shall fumigate in-transit or permit fumigation in-transit of a Canadian ship.

5. See Tables I and II for specific commodities, rates or application and exposure times.

GAS TIGHT COVERINGS

(SPACE, STRUCTURAL, AND TRANSPORTATION FUMIGATION USE)

F. TARPAULIN FUMIGATION: ALL PRECAUTIONARY PROCEDURES AS OUTLINED PREVIOUSLY MUST BE FOLLOWED.

The article or stacked articles should be placed on a sealed concrete floor or other airtight surface (avoid asphalt since this material will absorb the gas). If the floor is not airtight, it may be made so by covering it with sisal (fiber made from the agave plant) kraft paper, tar paper, additional tarpaulin, polyethylene sheeting or a fumigation bubble. Provide a space on top of the stack for a gas expansion dome to facilitate distribution.

Evaporating pans are essential for the volatilization and uniform dispersions of TCC Methyl Bromide Fumigant except where a vaporizer is used. Shallow pans or basins made of plastic or metal (except aluminum) are satisfactory for this purpose. Use one evaporator pan for each 28.3m³ contained under the tarp.

For delivery of TCC Methyl Bromide Fumigant from outside the tarpaulin, polyethylene tubing is required. Anchor one end of each polyethylene tube into an evaporating pan with tape or a suitable weight. This ensures that the liquid will be directed into the evaporating pan. Place evaporating pan(s) with anchored applicator tubing in the center of the expansion dome. Extend the free ends of the polyethylene tubes outside the area to be covered.

Cover and seal the stack with a gas tight tarpaulin or polyethylene sheeting of 6 mil or greater thickness. Allow a margin of at least 60 cm at the base of the stack for sealing. Sweep around the stack to provide a clean surface for sealing the tarpaulin. Seal tarpaulin to floor by sand and/or water snakes, by taping, or by means of moist soil. Attach each polyethylene tube to a can applicator or cylinder valve outlet and release fumigant. Use a cylinder dispenser or scale to meter small amounts from cylinders. Special units are available for use of cans that combine opener and evaporating pan functions, and are designed to be used with all parts under the tarpaulin. Use rates and exposure times are shown in Tables I and II.

At the end of the exposure period, unseal opposite ends of the tarpaulin and allow to aerate for at least 30 minutes before completely removing the tarp. Check methyl bromide concentration with a detection device before allowing unprotected persons to enter the area.

G. FOOD COMMODITIES

INSTRUCTIONS FOR FUMIGATION: After fumigating all food commodities, it is important to follow the aeration periods outlined in Table I to avoid unacceptable residues in food. When

fumigating food processing plants or restaurants, apply during closedown periods and, where possible, remove all food before fumigation. Aerate at least 48 hours after fumigation. If food commodities (wrapped or unwrapped) are exposed during fumigation, aerate for 7 days before removal from treatment facility for sale. Bulk and/or unwrapped foods should be wrapped (packaged) only after recommended aeration period.

THE FOLLOWING ARE DIRECTIONS FOR SPECIFIC PRODUCTS:

- (a). Only nuts in the shell should be fumigated. Do not fumigate nuts without a shell or nutmeat.
- (b). Tolerance of fruit to methyl bromide may vary with varieties.

Check with local authorities or the registrant for additional information.

The application rates, exposure times and aeration periods for food products are for ambient temperature (21° C) only. The aeration periods listed in Table I are considered minimum figures.

H. MEAT PACKING AND FOOD PROCESSING PLANTS

Only use when plant is not in operation. No exposed meat products, ingredients, or packaging materials are to be left in the room during fumigation. Food handling equipment must be covered. Any treated surface that may contact food products or other food products must be washed and rinsed thoroughly with potable water after fumigation before reusing for food processing.

I. HAY OR STRAW (FOR MULCH)

Insects, Nematodes, Weed Seeds

USE: 1.1 kg per 10 bales.

INSTRUCTIONS FOR FUMIGATION: Soak hay or straw for several days. Pile the bales, support a gas-proof cover several cms above material, and seal the edges under earth. Evaporate the fumigant under the cover. Fumigate at least 48 hours and aerate at least 24 hours.

ADHERE TO THE FOLLOWING RESTRICTIONS: Do not fumigate close to desirable vegetation. Keep the edge of the cover at least 30 cm away from the roots of desirable plants.

J. GRAIN (STORED), BARLEY, CORN, OATS, SORGHUM, RYE, WHEAT

Stored product insects, granary weevil, grain beetle, rice weevil, cadelles, mites, bran bugs, grain borers, mealworms, and Indian meal moth. Kills insects in all life stages.

USE: 3.25 - 6.5 kg/100m³

INSTRUCTIONS FOR FUMIGATION: May be applied in box cars, warehouses, fumigation vaults, food mills, cereal mills, ships and bulk grain storages. Rates at 21° C are approximately as follows: corn (shelled), 3.25 kg/100m³; wheat and similar small grains, 4.75 kg/100m³; milo (grain sorghum), 6.5 kg/100m³. At temperatures of 15° to 21° C, increase dosage by 25% to 50%.

ADHERE TO THE FOLLOWING RESTRICTIONS:

1. Do not fumigate if grain moisture is high, if grain temperature is below 15° C, or if there is excessive dockage. Fumigate at least 48 hours and aerate at least 24 hours.
2. Consult the manufacturer or agricultural authorities for further details.
3. Before fumigation, remove the following materials, which may develop undesirable odors: natural rubber, synthetic rubber, horsehair, fur, patent leather, iodized salt, high protein flour, synthetic detergents, and sulfur composts.

K. COMPOST, MANURE, TOPSOIL

Damping-Off Organisms (*Fusarium*, *Pythium*, *Rhizoctonia*), Insects, Nematodes, Weed Seeds

USE: 1.75 - 3.50 kg/100m³

INSTRUCTIONS FOR FUMIGATION: Fumigate either outdoors or in a well-ventilated place. Material should be loose, moist, and above 15° C. For best results pile not over 30 cms deep on wet ground or on a concrete floor. Piles up to 92 cm high may be fumigated if perforated every 30 cm. Support a gas-proof cover a few inches above the material to permit gas to diffuse and seal the edges. Introduce fumigant at the highest point of the pile. Use the high rate for damping-off organisms. Expose 24 hours. Aerate for 24 hours, then stir thoroughly and aerate 48 hours longer before using.

ADHERE TO THE FOLLOWING RESTRICTIONS:

1. Do not fumigate close to desirable vegetation. Keep the edge of the cover at least 30 cm away from the roots of desirable plants.
2. Fumigation with TCC Methyl Bromide Fumigant sometimes slows the rate of nitrification. Certain ammonia-sensitive plants, such as tomatoes, may suffer growth inhibition or stand reduction when planted in fumigated soils containing high amounts of ammonia nitrogen. To lessen this hazard, at least half of the nitrogen fertilizer added immediately before or soon after fumigation should be in the form of nitrate nitrogen. The hazard may also be reduced by delaying planting for several months after fumigation.
3. Fumigation of soils high in organic matter, such as muck, compost, or heavily manured soils, may occasionally yield conditions which result in poor plant growth. These soils should be fumigated at least 2 months before planting.

L. CHEESE

Cheese Mites

USE: 3.25 kg/100m³

CHAMBER FUMIGATION: Expose for 12 to 24 hours, and then aerate cheese for at least 48 hours.

M. CHRISTMAS TREES (PINES ONLY)

USE: See Table II for rates of application and exposure times.

QUARANTINE TREATMENT, ONTARIO: All trees to be shipped from quarantined counties in Ontario to points outside restricted areas in Canada and the United States must be treated with methyl bromide (or other product registered for this use) under the supervision of Agriculture Canada, and must be provided with a Quarantine Movement Certificate issued by Agriculture Canada.

INSTRUCTIONS FOR FUMIGATION: Fumigate under gas-proof conditions at least 14 days after cutting. Verify gas concentration 30 minutes after starting, and hourly thereafter. Take a final reading 15 minutes before the end of the exposure period.

SEED AND PLANT BEDS AND TURF USE

ADHERE TO THE FOLLOWING LIMITATIONS:

1. Keep children and animals away from plots during treatment and at least 30 minutes after cover is removed.
2. Consult the manufacturer or agricultural authorities for further details.

3. Growers should experiment on a small scale for a full season before extensive use. Difficulty has been experienced with carnations, conifers, holly, multiflora roses, snapdragons, and certain other ornamental plants and shrubs.
4. Do not fumigate close to desirable vegetation. Keep the edge of the cover at least 30 cm away from the roots of desirable plants.
5. Fumigation with methyl bromide sometimes slows the rate of nitrification. Certain ammonia sensitive plants, such as tomatoes, may suffer growth inhibition or stand reduction when planted in fumigated soils containing high amounts of ammonia nitrogen. To lessen this hazard, at least half of the nitrogen fertilizer added immediately before or after fumigation should be in the form of nitrate nitrogen. The hazard may also be reduced by delaying planting for several months after fumigation.
6. Fumigation of soils high in organic matter, such as muck, compost, or heavily manured soils, may occasionally yield conditions which result in poor plant growth. These soils should be fumigated at least 2 months before planting.

SEEDS AND PLANT BEDS FOR TOBACCO, SHADE TREES, FOREST TREES, ORNAMENTALS - HERBACEOUS, ORNAMENTALS - WOODY, PERENNIAL CROPS, VEGETABLES (FOR PRODUCTION OF TRANSPLANTS ONLY), PERMANENT PLANTING SITES FOR TOBACCO, FOREST TREES, ORNAMENTALS, PERENNIAL CROPS.

FOR CONTROL OF: Damping-off Organisms (*Fusarium*, *Pythium*, *Rhizoctonia*), Insects, Nematodes, Weed Seeds.

USE: 200 - 450 grams/10 m²

APPLICATION: Prior to fumigation, the soil should be in seedbed condition with adequate moisture to support seed germination. The soil should be worked to the depth it is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and time allowed for refuse to decompose before treatment. For best results, fumigate when soil temperature at a depth of 10 cm is above 16° C; between 10° C and 16° C double the exposure time. Do not fumigate at temperatures below 10° C. Prior to planting, apply TCC Methyl Bromide Fumigant at the rate that appears in the dosage table by means of tractor mounted wing-type shanks with the injection points no more than 30 cm apart and at a depth of 25 cm below the soil surface. To seal fumigant after application, cover immediately with high barrier tarpaulin by means of a mechanical tarp layer. Do not remove tarpaulin for 5 days. Use the high rate for control of damping-off organisms. Fumigate at least 120 hours and aerate at least 48 hours (low rate) or 72 hours (high rate). Seeds of some species can be planted immediately; for sensitive species, aerate several days longer. Do not set out living plants for at least 7 days.

The "High Barrier" tarpaulin used in the fumigation must have a permeability factor of less than 8 milliliters methyl bromide per hour, per square meter, per 1,000 ppm of methyl bromide under tarp at 30 degrees Celsius. Also, any polyethylene tarp of 6-mil (0.15mm) thickness or greater meets this criterion.

TURF (ORNAMENTAL, SPORTS)

FOR CONTROL OF: Damping-Off Organisms (*Fusarium*, *Pythium*, *Rhizoctonia*), Insects, Nematodes, Weed Seeds.

USE: 200 - 450 grams/10m²

TURF RENOVATION: Turf is usually worked up before fumigation but may be left undisturbed. Soil should be moist. Follow direction for seed and plant beds. Use the high rate for control of damping-off organisms. Fumigate at least 120 hours and aerate at least 48 hours (low rate) or 72 hours (high rate). For best results, fumigate when soil temperature is above 16° C at a 10 cm depth. At temperatures between 10° C and 16° C, soil may be seeded or sprigged without the removal of the dead sod.

STATEMENT OF WARRANTY AND LIABILITY

Seller warrants that this product complies with the specifications expressed in this label. SELLER'S GUARANTEE SHALL BE LIMITED TO THE TERMS SET OUT ON THE LABEL AND, SUBJECT THERETO, THE BUYER ASSUMES THE RISK TO PERSONS OR PROPERTY ARISING FROM THE USE OR HANDLING OF THIS PRODUCT AND ACCEPTS THE PRODUCT ON THAT CONDITION. Seller's liability for default, breach or failure under this label shall be limited to the amount of the purchase price. Seller shall have no liability for consequential damages.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that TCC Methyl Bromide Fumigant contains a Group 8A insecticide . Any insect population may contain individuals naturally resistant to TCC Methyl Bromide and other Group 8A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed. To delay insecticide resistance:

- Where possible, rotate the use of TCC Methyl Bromide Fumigant or other Group 8A insecticides with different groups that control the same pests.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Integrated Pest Supply at 604-520-9900.

TABLE I
APPLICATION SUMMARY FOR STORED PRODUCT PESTS⁽¹⁾
INCLUDING RAW AND PROCESSED FOODS

	<u>DOSAGE (Kg/100m³)</u>	<u>EXPOSURE TIME (Hours)</u>	<u>AERATION PERIOD (Hour)</u>
Apples	8.2	2	48
Apples (Dried)	1.8	24	168
Apricots	8.2	2	48
Apricots (Dried)	1.8	24	168
Beans	5.7	24	48
Beets (Roots)	4.8	4	48
Bulbs (Ornamental Plants)	1.3 - 6.5	12 - 24	48
Carrots	6.4	4	48
Cherries	8.2	2	48
Cipoline Bulbs	6.4	4	48
Citrus, Citrons	5	2	48
Clothing	5	24	168
Cocoa Beans	2.5	12	48
Corn	3.2	24	48
Corn (Sweet)	5	4	48
Cottonseed	12.9	24	48
Cucumbers	3.9	4	48
Dates (Dried)	1.8	24	168
Eggplants	5	4	48
Figs (Dried)	1.8	24	168
Garlic	5	4	48
Grapefruit	5	2	48
Grapes	6.4	2	48
Horseradish (Roots)	5	4	48
Jerusalem Artichokes	5.7	4	48
Kumquats	5	2	48
Lemons	5	2	48
Limes	5	2	48
Melons			
Cantaloupes	3.2	2	48
Honeydew	3.9	2	48
Muskmelons	3.9	2	48
Watermelons	4	4	48
Nectarines	8.2	2	48
Nuts	5.7	24	168
Okra	5.7	2	48
Onions	5	6	48
Oranges	5	2	48
Parsnips (Roots)	5	4	48
Peaches	8.2	2	48

Peaches (Dried)	1.8	24	168
Pears	8.2	2	48
Pears (Dried)	1.8	24	168
Peas (Pods)	5	2	48
Peas (Dried)	6.4	24	48
Peppers	6.4	2	48
Pimentos	3.9	3	48
Pineapples	3.2	4	48
Plums	8.2	2	48
Potatoes	5	6	48
Prunes (Dried)	1.8	24	48
Pumpkins	3.9	2	48
Quinces	8.2	2	48
Radishes	5	4	48
Raisins (Dried)	1.8	24	168
Rice	5	24	48
Salsify	5	3	48
Squash			
Summer	6.4	2	48
Winter	6.4	2	48
Zucchini	4	3	48
Sugarbeets	4.8	4	48
Sweet Potatoes	5.7	4	48
Tangelos	5	2	48
Tangerines	5	2	48
Tomatoes	4.8	4	48
Turnips (Roots)	4.8	4	48
Yams	5.6	4	48

(1) *The above application rates, exposure times and aeration periods are at an ambient temperature of 21° C.*

TABLE II
APPLICATION SUMMARY FOR CHRISTMAS TREES
(PINES ONLY)

At an average commodity temperature of:

18 to -13° C	use	25	kg/100m ³	to give 9.25	kg/100m ³	for 5 hours
Or						
18 to -13° C	use	25	kg/100m ³	to give 7.75	kg/100m ³	for 6 hours
At						
-12 to -7° C	use	17.5	kg/100m ³	to give 7.0	kg/100m ³	for 4 hours
At						
-7 to -2° C	use	15	kg/100m ³	to give 6.25	kg/100m ³	for 4 hours
At						
-1 to +4° C	use	11.25	kg/100m ³	to give 4.5	kg/100m ³	for 4 hours
At						
+4 to +9° C	use	8	kg/100m ³	to give 3.5	kg/100m ³	for 4 hours
At						
+10 to +15° C	use	5.5	kg/100m ³	to give 3.25	kg/100m ³	for 3 hours
At						
+16° C and higher	use	4.0	kg/100m ³	to give 3.0	kg/100m ³	for 3 hours

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