

97.05.07

((LABEL))

DowElanco

TELONE\* II-B

Liquid Soil Fumigant

AGRICULTURAL

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

GUARANTEE: 1,3-dichloropropene.....94%

DANGER POISON

EXPLOSIVE

REGISTRATION NO.: 13368  
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 416 L Traveler\*

DowElanco Canada Inc.  
Suite 201, 1144-29 Avenue N.E.  
Calgary, Alberta  
T2E 7P1  
1-800-667-3852

\*Trademark of DowElanco  
DowElanco Canada Inc. is a licensed user.

PRECAUTIONS - DANGER  
HAZARDOUS VAPOUR AND LIQUID.  
MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.  
CAUSES BURNS OF SKIN AND EYES.  
MAY PRODUCE KIDNEY AND LIVER DAMAGE UPON PROLONGED EXPOSURE.

SEE FURTHER INSTRUCTIONS UNDER USE PRECAUTIONS SECTION.

#### PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE. Do not use or store near heat or open flame. Do not cut or weld container.

#### FIRST AID

The following emergency response procedures should be followed until decontamination is complete, until a physician arrives, or until the person can be moved to a medical facility.

If swallowed: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

If in eyes: Irrigate with flowing water immediately and continuously for at least 15 minutes. Consult medical personnel.

If inhaled: Remove person to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Call a physician if irritation persists. If water not immediately available, remove excess chemical from skin with absorbent material such as a towel or dry soil. Proceed at once to location where water is available and thoroughly wash contaminated skin with plenty of water. Wash clothing before reuse.

#### TOXICOLOGICAL INFORMATION

EYES: May cause corneal injury or burn. Stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Consult ophthalmologist.

SKIN: May cause moderate irritation. Treat as any contact dermatitis. If burn is present, treat as any thermal burn. May be absorbed in acutely toxic amounts.

RESPIRATORY: May cause severe irritation. Administer oxygen if available. Bronchodilators, expectorants and antitussives may be of help. Symptoms may be delayed by a few hours.

ORAL: Toxic by ingestion. May cause nausea or vomiting. May cause abdominal cramps and/or diarrhea.

SYSTEMATIC: May cause liver and kidney damage. Anaesthetic or narcotic effect may occur. There are no specific antidotes to

Telone II-B. Treatment based on the sound judgement of the physician and the individual reactions of the patient.

#### AGRICULTURAL CHEMICAL

Do not strip or store with food, feeds, drugs or clothing.

#### TRAVELER STORAGE

Store Telone II-B in tightly closed containers in a cool place away from dwellings and normal work areas. Do not store near seeds, plants, fertilizers or other pesticide chemicals. Do not contaminate food, feedstuffs or domestic water supplies.

#### ON-FARM TRAVELER STORAGE

1. Store empty container in a safe area away from normal work areas and out of direct sunlight. Outdoor storage will subject the Traveler and its label to deterioration if they are not protected from the elements (particularly rain and sunlight).
2. For the report of damage to, maintenance of and/or removal of the Traveler, contact your Telone distributor at (519) 842-8408.
3. Do not stack containers over 2 high full and 3 high empty.

#### TRAVELER DISPOSAL

1. Empty containers as completely as possible.
2. For information on disposal of unused product contact the manufacturer (emergency phone number 519-339-3711).
3. For the removal of the container contact your Telone distributor at (519) 842-8408.

(( PAMPHLET ))

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MAY PRODUCE KIDNEY AND LIVER DAMAGE UPON PROLONGED EXPOSURE.

Preliminary laboratory rodent studies suggest that the active ingredient in Telone II-B, 1-3-dichloropropene may present health risks to applicators. All users are advised to contact the Emergency Response Line (519)-339-3711) for medical information and the cleanup of spills. DO NOT attempt to clean up a spill.

Do not get in eyes, on skin, or on clothing. Wear eye and skin protection necessary to prevent contact when handling this material. Do not breathe vapour. Wash thoroughly after handling and before eating and smoking. Use only with adequate ventilation. If protective gear such as boots or gloves become contaminated, immediately wash with soap and water. Never wear protective gear having the odour of Telone II-B. Aerate and wash all protective gear thoroughly after use until all odour is gone.

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Oral: Toxic by ingestion. May cause nausea or vomiting. May cause abdominal cramps and/or diarrhea.

Systemic: May cause liver and kidney damage. Anaesthetic or narcotic effect may occur. No specific antidote to Telone II-B. Treatment based on the sound judgment of the physician and the individual reactions of the patient.

## AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

## ENVIRONMENTAL HAZARDS

To avoid injury to fish and other wildlife do not spill or empty Telone II-B into streams, ponds or other bodies of water.

This product is known to move through soil and under certain conditions has the potential to reach ground water as a result of agricultural use. DO NOT apply in areas where soils are highly permeable and ground water is near the surface, or in karst geology (i.e. area where aquifers and sink holes are abundant), as this could result in ground water contamination.

## TRAVELER STORAGE

Store Telone II-B in tightly closed containers in a cool place away from dwellings and normal work areas. Do not store near seeds, plants, fertilizers or other pesticide chemicals. Do not contaminate food, feedstuffs or domestic water supplies.

## ON-FARM TRAVELER STORAGE

1. Store empty container in a safe area away from normal work areas

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#### GENERAL INFORMATION

Use Telone II-B only as a preplanting treatment to control root-knot, meadow (lesion), sugar-beet and certain other nematodes in land to be planted to crops such as beans, beets, carrots, celery, broccoli, Brussel sprouts, cabbage, cauliflower, radish, mustard, turnip, corn, cucurbits (cantaloupe, cucumbers, honeydew, watermelon and pumpkin), lettuce, onion, parsnips, peas, peppers, spinach, sweet potatoes, white potatoes, tomatoes, ornamental and forest nursery crops and high value field crops such as floral crops, strawberries, raspberries, tobacco, deciduous orchard planting sites.

Fumigate land to be planted to the crops listed by applying Telone II-B under the conditions and at the rates recommended under PRECAUTIONS, DIRECTIONS FOR APPLICATION AND PLANTING, DOSAGE RECOMMENDATIONS, USE PRECAUTIONS AND FIRST AID.

#### DIRECTIONS FOR APPLICATION AND PLANTING

##### When to Treat

Apply Telone II-B either in the spring or fall whenever soil type and conditions permit. For best results with annual crops, treat the soil each year. Late summer or early fall treatment (before October 15) is best for land to be planted to early spring crops, especially transplanted crops such as celery, tomatoes and nursery and orchard stock. Early fall treatment permits planting a fall cover crop.

NOTE: Treat muck soils only in the early fall and plant as late as possible in the spring. Treat fine textured (clay) soils only when they are near or at the wilting point. Do not use Telone II-B to treat any type of soil when it is cold and/or wet.

### Soil Preparation

Telone II-B gives best results when conditions permit rapid diffusion of the fumigant through the soil and the soil surface can be sealed to prevent excessive fumigant loss during the exposure period. The soil should be in good seed bed condition, free of clods and undecomposed plant material, moisture at about one-half of field capacity and temperature between 5 to 27°C at the depth of injection. If undecomposed plant debris is present it should be plowed down and allowed to decompose before applying Telone II-B. Tillage deeper than 30 cm is necessary for good fumigant penetration in soils where a hard or "plow" pan occurs at plow depth. Where deep tillage is used, the tillage equipment may often be modified to simultaneously apply the fumigant and thus avoid going over the field twice.

### Application

Telone II-B may be applied either as an overall (broadcast) or row treatment using suitable application equipment that will ensure placement of the fumigant at least 15 to 20 cm below the final soil surface. For overall application use either plow-sole or chisel equipment with the chisels spaced 30 cm or more apart. When the fumigant is injected at a depth of 30 cm or more (deep tillage) the chisel spacing may be up to twice the application depth but should not exceed 75 cm. Application may be made in the same direction or at an angle to the direction of the planting row, whichever is most convenient. For row application use chisel equipment with one chisel per row or two chisels spaced 30 cm apart to treat only the soil where the crop is to be planted. When one chisel per row is used adjust the fumigant flow rate to distribute about 1 and 1/3 times more fumigant per chisel than is recommended for overall application. When two chisels are used per row, apply at the same flow rate per chisel as for overall. The amount of fumigant required per hectare will decrease as the distance between rows is increased and vice versa. At time of planting avoid placing the seed row directly over the furrow left by the applicator chisel. When a single chisel is used per row place the seed 8 to 10 cm to one side of the chisel furrow. When two chisels are used plant in the center of the area between the chisel furrows.

### Sealing

Immediately after application, compact the soil surface to prevent



excessive fumigant loss. After chisel application use a roller, cultipacker or similar sealing device. After plow-sole application disk the land, then compact it by floating or rolling. Sealing after row application can be accomplished by the tractor wheel, by ridging or by bedding so that the fumigant will be 30 to 35 cm below the top of the bed. When fumigating ridged rows, seal in the fumigant with ring rollers, press sealers or by re-ridging.

#### Exposure Period

After application and sealing leave the soil undisturbed for 7 to 14 days. A longer exposure period will be required if the soil becomes excessively cold or wet during the exposure period.

#### Aeration and Preparation of Soil Before Planting

At the end of the exposure period allow the soil to aerate completely before planting the crop. Aeration is usually complete when the odour of Telone II-B is no longer evident. Under optimum soil and weather conditions allow one week of aeration time for each 100 L of Telone II-B applied per hectare. When Telone II-B is used for treating deep-rooted tree and shrub planting sites, a 3 to 6 months aeration period should be allowed. To hasten aeration, especially if heavy rains or low temperatures occur during the exposure period, work the soil to the depth of the treatment zone. After row treatment use a knife-like chisel in the bed without turning the soil, thus reducing possible recontamination of the treated soil. To hasten aeration after overall treatment, plow or deep cultivate to the depth of the treatment zone. This is especially desirable after fall fumigation of muck soils.

#### DOSAGE RECOMMENDATIONS

Crop	Type of Treatment	Soil Type	L/ha
Floral crops, high value field & vegetable crops	overall	mineral	135
		muck	200
	row	mineral	65
		muck	100

Crucifers* and cucurbits**	overall	mineral	112
		muck	200
	row	mineral	65
		muck	100
Cane & vine fruits including raspberries and strawberries	overall	mineral	170
		muck	200
	row	mineral	80
		muck	110
Tobacco***	overall	mineral	112
	row	mineral	75 to 90
Deciduous orchards and grapes S.W. Ontario	overall	mineral	200
	row	mineral	100
Turf areas & plant beds (forest & nursery crops)			200
Greenhouse beds	2 Litres per 100 m2		

\*broccoli, Brussel sprouts, cabbage, cauliflower, radish mustard and turnip

\*\*cantaloupe, cucumber, honeydew, watermelon and pumpkin

\*\*\*The higher rate is recommended for heavier soils. Check with government authorities for advice on fumigant and fertilizer rates for your farm. Fertilizer products should contain at least one quarter of the total nitrogen as nitrate whether applied broadcast before, at, or after transplanting. Fumigation may alter fertilizer uptake.

## HANDLING DIRECTIONS

**DO NOT INHALE VAPORS:** NIOSH- or MSHA- approved respiratory protection must be worn when exposed to atmospheres which contain or are suspected of containing vapours of Telone II-B. A NIOSH- or MSHA-approved half-face respirator with chemical worker's goggles or full-face respirator must be used during application, repairs, calibrations, transfers, sampling, rinsate disposal, clean-up, any activity less than 2 metres from an unshielded pressurized hose containing Telone II-B and when working in poorly ventilated areas. When in use canisters or cartridges shall be replaced daily or sooner if specified by manufacturer or at first sign of odour breakthrough, whichever comes first. NIOSH-approved cartridges suitable for protection from organic vapour will be adequate for short-term situations such as listed above.

Where high concentrations of vapours might be expected (such as large spills in poorly ventilated areas) a self-contained or air-supplied respirator must be used.

**DO NOT GET ON SKIN:** When handling or working with Telone II-B, wear clean body covering that has long sleeves and long pants and is constructed of a material resistant to Telone II-B including chemically resistant headgear (i.e. standard hardhat), gloves and heavy footwear. Immediately remove contaminated coverings. Aerate and wash all protective clothing and gear thoroughly after use.

There are no protective clothing materials that are completely impervious. DO NOT wear leather outer garments as leather gives no protection and can not be decontaminated. Rubber, vinyl protective gear, thin layers of polyethylene (minimum 1 mil), give short-term protection and should be immediately discarded upon contamination. Heavy ( + mil) polyethylene and neoprene provide longer term protection. If gear becomes contaminated, immediately wash with soap and water. Never wear protective gear having odour of Telone II-B. Wash and aerate all protective gear thoroughly after use until all odour is gone.

**DO NOT GET IN EYES:** Wear eye protection such as chemical worker's goggles or full-face respirator when handling Telone II-B.

**DO NOT SWALLOW:** Do not use the mouth to siphon Telone II-B from containers or to blow out clogged lines, nozzles, etc.

## USE PRECAUTIONS

Do not enter the treated area within 72 hours after treatment unless heavy-duty synthetic footgear is worn. An approved half face or full face respirator equipped with organic vapour cartridges must be

worn when the odour of Telone II-B can be detected.

IMPORTANT - NOTE CAREFULLY. Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when heavy rates of fertilizer and fumigant are applied to soils that are either cold, wet, acid or high in organic matter. To avoid ammonia injury or nitrate starvation, or both, to crops on high organic soils do not use fertilizers containing nitrates until after the crop is well established and the soil temperature is above 18°C.

Certain crops are tolerant of ammonia and the above rule does not apply to them. When using high rates of Telone II-B as required by certain provincial nursery regulations, liming of highly acid soils before fumigation may stimulate nitrification and reduce the possibility of ammonia toxicity. Certain nursery crops such as Cornus sp., Crataegus sp., spruce and vegetable crops such as cauliflower have shown evidence of phosphorus deficiency following fumigation. To avoid this possible effect it is suggested that additional phosphate fertilizer be used on soils where experience indicates a deficiency may occur.

Check with local governmental authorities for fertilizer recommendations following fumigation as soil fumigation may alter fertilizer uptake. Fertilize as indicated by soil tests made after fumigation.

Attention: To avoid reinfestation of treated soil do not use irrigation water, transplants, tools, seed pieces or crop remains that could carry soilborne pests from infested land. Clean equipment carefully before using.

#### WARNING

#### APPLICATION EQUIPMENT CLEANING:

Since Telone II-B soil fumigant is corrosive under certain conditions, flush all applicators with fuel oil or kerosene immediately after use. DO NOT USE WATER. Dispose of rinsate by incorporation into field just treated. Do not use containers, pumps, or other transfer equipment made of aluminum, magnesium or their alloys, as under certain conditions, Telone II-B may be severely corrosive to such metals.

NOTICE TO USER: This control product is to be used only in accordance with the directions on this label. It is an offence under THE PEST CONTROL PRODUCTS ACT to use a control product under unsafe conditions.

NOTICE TO BUYER: 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.

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