

2001/2003

AgrEvo (logo)

**VORLEX® PLUS**  
**LIQUID SOIL FUMIGANT**

Controls: Fungal Diseases, Nematodes, Weeds, Wireworms

**AGRICULTURAL**

**REGISTRATION NO. 18353 PEST CONTROL PRODUCTS ACT**

Read Directions Before Using

**GUARANTEE:**

Methyl isothiocyanate	20%
1,3 dichloropropene and other related chlorinated C <sub>3</sub> hydrocarbons	40%

**AgrEvo Canada Inc.**

295 Henderson Drive

Regina, SK S4N 6C2

**Telephone:** 1-800-667-5959

VP-Canada-LA-V05-Rev 10/97

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**READ THE LABEL BEFORE USING  
KEEP OUT OF REACH OF CHILDREN**



HAZARDOUS VAPOUR AND LIQUID. MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH THE SKIN. IRRITATING TO EYES (MAY PRODUCE TEARS), NOSE, THROAT, AND SKIN.

**PRECAUTIONS:** Do not breathe vapour. Do not get in eyes, on skin, or on clothing. Do not take internally. Keep away from heat or open flame. Use only with adequate ventilation. To protect fish and wildlife, do not contaminate streams, lakes and ponds with VORLEX PLUS. Preliminary laboratory animal studies suggest that 1,3-dichloropropene may pose a health risk to applicators. All users are advised to contact the distributor for additional handling and use information provided by the manufacturer.

#### **FIRST AID**

**INTERNAL:** INGESTION: If swallowed, immediately call a physician or contact a poison control centre. DO NOT INDUCE VOMITING.

NOTE TO PHYSICIAN: Empty stomach contents by gastric lavage.

**EXTERNAL:** SKIN CONTACT: In case of contact, immediately remove contaminated clothing, including shoes, wipe skin dry, then wash thoroughly with soap and water. Thoroughly clean contaminated clothing and do not reuse until completely aerated and free of chemical odour. EYE CONTACT: If splashed in eyes, immediately wash with large amounts of water or a 5% solution of sodium bicarbonate for at least 15 minutes; get medical attention or contact a poison control centre. Continue treatment with ophthalmic hydrocortisone ointment. INHALATION: If inhaled, get person to fresh air. Have person lie down and keep him warm and quiet. Give artificial respiration if breathing has stopped. Call a physician or contact a poison control centre immediately.

**TOXICOLOGICAL INFORMATION:** Medical personnel should contact AgrEvo's medical information services toll free 1-800-228-5635, ext. 211. VORLEX PLUS causes lachrymation and respiratory distress if inhaled. Skin contact causes irritation; prolonged contact may cause blisters and inflammation. Eye contact results in severe lachrymation. Ingestion causes acute gastrointestinal distress.

### **GENERAL INFORMATION**

VORLEX PLUS Soil Fumigant is used as a preplant treatment in both field and greenhouse soils to be planted to ornamental plants such as flowers and evergreens or vegetables such as Celery, Lettuce, Garden Beets, Tomatoes, Eggplant, Beans, Melons, Onions, Asparagus and Squash; for field crops such as Tobacco, Sugarbeets, Potatoes, or small fruits such as Strawberries.

In the soil, VORLEX PLUS vaporises and diffuses controlling root knot, root lesion and pin nematodes. VORLEX PLUS controls harmful fungi causing damping-off, root rot and wilt. VORLEX PLUS also controls wireworms. It suppresses the germination of seeds of the following weed species: Purslane, Crabgrass, Pigweed, Lamb's-quarters, Chickweed, Ragweed, Mustard, Poa spp., Smartweed, Wild Radish, Shepherd's-purse, Horsetail (Equisetum) and suppresses Quackgrass. Refer to dosage chart for further information.

### **PHYSICAL OR CHEMICAL HAZARDS**

#### **FLAMMABLE**

DO NOT USE, POUR, SPILL, OR STORE NEAR HEAT OR OPEN FLAME.  
DO NOT CUT OR WELD CONTAINER. FIRE OR EXPLOSION MAY RESULT  
EVEN IF CONTAINER IS EMPTY.

### **USE PRECAUTIONS**

As with most soil fumigants, application of VORLEX PLUS may temporarily raise the level of ammonia nitrogen and soluble salts in the soil which may result in plant injury. This is most likely to occur when heavy rates of fertilizer or fumigant are applied to soils that are either cold, wet, acid or high in organic matter.

### **CHECK WITH YOUR REGIONAL TOBACCO OR AGRICULTURAL EXTENSION SPECIALIST FOR FERTILISER RECOMMENDATIONS.**

DO NOT allow liquid or vapours to come in contact with lawn and desirable plants; do not apply on areas beneath which roots of desirable plants extend. DO NOT use in greenhouses which contain living plants. DO NOT fumigate if the soil temperature at 8 cm depth is over 32°C.

AVOID reinfestation of treated soil. Do not contaminate treated soil with untreated soil. Do not use transplants or tools which could carry soil-borne pests from infested land. Clean equipment carefully before using.

VORLEX PLUS may be corrosive under certain conditions. Flush all applicators with fuel oil or kerosene immediately after use. DO NOT USE WATER. Do not use containers or equipment of aluminium, magnesium or their alloys. Close containers tightly. Store away from feed and food. Polyethylene and Teflon are the only plastic materials suitable for use with VORLEX PLUS. Common protective materials such as rubber gloves and boots may be penetrated by this material.

In case of contact while wearing this protective equipment, it should be removed and thoroughly aerated before reuse. For field operations, it is advisable to cover shoes and hands with polyethylene. Use goggles when handling this material.

In case of accidental spillage indoors, have available a self-contained breathing apparatus or a mask or respirator of a type suitable for protection against chlorinated C<sub>3</sub> hydrocarbons-methyl isothiocyanate mixtures.

**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.

#### **DIRECTIONS FOR USE**

**TIME OF APPLICATION:** Treatment can be made at any time the soil is workable; fall or winter application is desirable for crops which are planted in the spring.

**PREPARATION OF SOIL: FOR OPTIMUM CONTROL WITH VORLEX PLUS FOLLOW THESE STEPS CAREFULLY:** (1) Work crop remains into the soil so that they are well decomposed before treatment. (2) In shrub and tree replant sites remove as much of the root system as possible. (3) Break up all clods and loosen soil thoroughly by cultivation one week before treatment. Deep tillage is recommended, particularly for deep-rooted crops. Always work soil deeper than intended application depth. (4) Keep soil moist from the surface down through the root zone and maintain in this condition for one week before fumigation. DO NOT FUMIGATE DRY SOILS.

**APPLICATION:** Use injection type applicators.

**BROADCAST TREATMENT:** Set shanks 15 cm to 20 cm apart. Inject at a depth of 15 cm to 20 cm.

**ROW TREATMENT:** Adjust injection chisels to same spacing as planter. Seal the treated strips by bedding or listing. Always inject the fumigant at least 15 - 20 cm below the final soil (planting) surface. Before planting, remove the tops of the beds, being careful that none of this soil falls on fumigated band.

**DOSAGE**

<b>Pest</b>	<b>Soil Type</b>	<b>Overall</b>	<b>Row or Band</b>
		<b>(Broadcast) Application</b>	<b>Application</b>
		<b>Per Hectare</b>	<b>Per Chisel Per 100 Metres</b>
<b>Nematodes</b>	Mineral	55-130 L	125-275 mL
<b>Nematodes</b>	Organic (muck)	90-225 L	175-475 mL
<b>Weeds*, fungi, Nematodes</b>			
<b>Wireworms**</b>	Mineral	225-450 L	475-925 mL
<b>Weeds*, fungi, Nematodes</b>			
<b>Wireworms**</b>	Organic (muck)	360-900 L	725-1,750 mL

**USE LIMITATIONS:**

\*For best weed control, use the higher dosages indicated, inject at 10 cm depth and cover with a tarp for 4 days.

\*\*Row or band treatment does not give effective wireworm control.

**IMMEDIATELY** after application, drag the soil to remove chisel marks then firm with a smooth roller. If additional water is required, apply only the amount necessary to wet the soil to a depth of 1.3 cm. If a tarp seal is used, lower dosages may be effective. In soil 21°C or higher at 15 cm depth, special attention should be given to sealing the surface of the soil. Tarping gives the best seal.

**FUMIGATION PERIOD:** After application at soil temperatures of 15.5°C or above, keep soil moist and undisturbed for a minimum of 4 days; 7 days is preferable. Use a shorter fumigation period only if it has been shown effective.

Colder soils require a longer fumigation period. If these conditions occur, allow at least one to three weeks for the fumigation period depending upon the temperature.

In fall and winter application, the fumigation period should extend until spring. The soil should be undisturbed during this period.

**AERATION PERIOD:** For soil temperatures above 15.5°C (at 15 cm depth), aerate the soil at the end of the fumigation period by cultivation, e.g. discing. Repeated cultivation will aid release of the fumigant, and is especially desirable if heavy rains occur during the fumigation period. If soil crusting occurs it retards aeration and must be broken up. Repeated cultivation may be necessary to prevent soil crusting.

For soil temperatures below 15.5°C (15 cm depth), longer aeration periods than those mentioned above will be required. Repeated deep cultivation is especially important when heavy rains or very wet soil accompany low soil temperatures, since these conditions retard aeration.



Aerate until the fumigant has completely escaped from this soil. This is usually accomplished by allowing one week between cultivation (end of fumigation period) and planting for each 110 L/ha of VORLEX PLUS.

If VORLEX PLUS is used in heavy clay soil, an extended aeration period may be required.

**Do not plant when the odour of the fumigant is still detectable.**

#### **DISPOSAL**

1. Follow provincial instructions for any required cleaning of the container prior to its disposal.
2. Make the empty container unsuitable for further use.
3. Dispose of the container in accordance with provincial requirements.
4. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the provincial regulatory agency or the manufacturer.

#### **DO NOT REUSE CONTAINER**

**FOR FURTHER INFORMATION OR IN CASE OF FIRE, LEAKY, OR DAMAGED CONTAINERS, OR OTHER EMERGENCY, REPORT AT ONCE TO:**

**AgrEvo Canada Inc.**  
295 Henderson Drive  
Regina, SK S4N 6C2  
**Telephone:** 1-800-667-5959

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VORLEX is a registered trademark of AgrEvo USA Company.

**Product of United States**

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PRODUCT OF USA

VP-Canada-LA-V05-Rev 10/97

### **DIRECTIONS FOR USE**

Read entire attached label for  
Directions for Use before using  
this product. (arrow)

(logo)

RQ, POISONOUS LIQUIDS, CORROSIVE, N.O.S., UN 2927, (CONTAINS  
METHYL ISOTHIOCYANATE AND 1,3 DICHLOROPROPENE),  
INHALATION HAZARD

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