

25-MAR-2002

((LABEL))

COMMERCIAL USE

9.46 L

**TILLAM® 7.2-E  
Emulsifiable Liquid**

**REGISTRATION NO. 08393  
PEST CONTROL PRODUCTS ACT**

**Selective herbicide for use on mineral soils only to control certain weeds in tomatoes, sugar beets, red beets, flue cured tobacco and cigarette burley tobacco.**

**GUARANTEE:**

Pebulate.....720 g per litre

**READ THE LABEL AND ATTACHED BROCHURE BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

**CEDAR CHEMICAL CORPORATION  
C/O Suite #840, 105-150 Crowfoot Cres, N.W., Calgary, AB T3G 3T2**

C93/A-7

**PRECAUTIONS**

**KEEP OUT OF REACH OF CHILDREN. MAY BE HARMFUL IF SWALLOWED.**

Avoid contact with eyes, skin and clothing. Do not breathe spray mist. Wash thoroughly after use. Keep away from heat and open flames. Do not contaminate feed and food. Do not apply by air.

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., contact 1-800-375-4648 or [www.cropro.org](http://www.cropro.org)

**FIRST AID**

If a known exposure occurs or is suspected, immediately initiate the

recommended procedure below. Simultaneously contact a Poison Control Centre, a physician or the nearest hospital. Describe the situation and follow the advice given.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**IF SWALLOWED:** Immediately give large quantities of water but DO NOT induce vomiting. If vomiting does occur, give fluids again. Have a physician determine if condition of patient will permit evacuation of stomach. Do not give anything by mouth to an unconscious person.

**IF IN EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart during flushing to ensure rinsing of the entire surface of the eye and lids with water. Call a physician.

**IF ON SKIN:** Flush with large amounts of running water for 15 minutes. Remove contaminated clothing and shoes. Get medical attention if skin irritation occurs. Wash clothing before reuse.

**IF INHALED:** Remove to fresh air. Seek medical attention if respiratory irritation occurs.

**CONSULT YOUR LOCAL POISON CONTROL CENTRE FOR ADDITIONAL INFORMATION**

#### **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

#### **EMERGENCY TELEPHONE NUMBERS**

**ALL HOURS (613) 787-5620 ONLY FOR HEALTH AND ENVIRONMENTAL INFORMATION (NORAC CONCEPTS INC.)**

#### **STORAGE**

Do not contaminate water, food, feed or fertilizer by storage or disposal. Minimum storage temperature is -18EC.

### **SPILL CLEANUP**

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact Cedar Chemical (see EMERGENCY TELEPHONE NUMBER) for further information.

**For spills and leaks:** contain the liquid with dikes or inert material (soil, clay, kitty litter etc.) Absorb the spill onto inert material and shovel into a sealable waste container.

**On hard surfaces:** sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container.

**On Soil:** remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements. For more information on the disposal of waste and the clean up of spills, contact the Provincial Regulatory Agency or the manufacturer.

### **DISPOSAL**

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty, rinsed container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

### **NOTICE TO USER**

This control product is to be used only in accordance with the directions on this label. It is an offense 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.

((BOOKLET))

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COMMERCIAL  
**Net Contents: 9.46 L**

CEDAR CHEMICAL CORPORATION  
5100 Poplar Avenue, Suite 2414  
Memphis, TN 38137

FOR MORE INFORMATION, CONTACT:  
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C/O Suite #840  
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Calgary, AB T3G 3T2

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**DIRECTIONS FOR USE**

TILLAM 7.2E should be used only for recommended purposes and at recommended rates (DO NOT OVERDOSE.)

Applied according to directions and under normal growing conditions, TILLAM 7.2E will not harm the treated crop. During germination and early stages of growth, unusually cold and wet or hot and dry weather, insect or plant diseases attack, the use of certain soil-applied systemic insecticides, improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken crop seedlings. TILLAM 7.2E used under these abnormal conditions could result in crop injury.

Do not tank mix TILLAM 7.2E with insecticides or fungicides unless compatibility has been tested and proven to be satisfactory prior to use.

Keep container closed when not in use.

FOR ALL USES TILLAM 7.2E must be THOROUGHLY mixed into the soil.

Do not apply by air.

Do not graze or cut for fodder treated immature crops. There are not sufficient data available to support such.

<b>WEEDS CONTROLLED</b>	
<b>ANNUAL GRASSES</b>	<b>ANNUAL BROADLEAF WEEDS</b>
Barnyard Grass	Lamb's-quarters
Crab Grass	Prostrate Pigweed
Foxtails (Green, Yellow)	Purshlane
Wild Oats	Redroot Pigweed

The above listed annual grasses and broadleaf weeds will be controlled only if application is made when conditions are favourable for germination.

<b>WEEDS CONTROLLED</b>	
<b>PERENNIAL WEED</b>	<b>IN TOBACCO ONLY</b>
Yellow Nutsedge (Nut Grass)	Horsetail

Existing stands of nutsedge must be turned under and chopped up thoroughly before treatment.

### **Soil Preparation**

Prepare the soil for seeding according to good agricultural practice. TILLAM 7.2-E is recommended for use on mineral soils only. All weed growth should be thoroughly worked into the soil before treatment.

DO NOT APPLY BEFORE PRE-IRRIGATION.

### **APPLICATION**

Use standard low-pressure (150 - 350 kPa) boom spray equipment. Do not use single NOZZLE BOOM-JET TYPE SPRAYERS. Spray equipment should be carefully calibrated before use and checked frequently during application to be sure nozzles are free from clogging and delivering a uniform spray pattern. Apply UNIFORMLY the recommended rate of TILLAM 7.2-E in 200 - 400 litres of water per hectare. Avoid overlaps that will increase TILLAM 7.2-E dosage above recommended limits because plant injury will occur. Apply onto dry soil surface. The soil should be dry enough to permit good soil mixing with incorporation equipment.

### **FLUID FERTILIZER TANK MIX**

TILLAM 7.2-E may be combined with fluid (solution, slurry or suspension) fertilizers. However, physical compatibility with these fertilizers must be determined before combining in the spray tank. See **Appendix I** giving directions for these combinations. Even though found to be compatible, constant agitation is necessary to keep the TILLAM 7.2-E evenly mixed with the liquid fertilizer.

### **IMPREGNATION OF DRY BULK FERTILIZERS WITH TILLAM 7.2-E**

Many dry bulk fertilizers can be impregnated with TILLAM 7.2-E and applied and incorporated into the soil before planting for control of label led grasses and broadleaf weeds in transplant tomatoes and tobacco. Uniform distribution of TILLAM 7.2-E on the dry fertilizer particles and uniform application in the field are necessary to assure good results. See **Appendix II** for special instructions regarding directions for impregnation and use.

### **SOIL (MIXING) INCORPORATION**

Immediately (within minutes) after application thoroughly mix TILLAM 7.2-E into the soil to a depth of 5 to 10 centimetres. Thorough



soil mixing is necessary for good weed control. Use the following equipment only:

#### **INCORPORATION EQUIPMENT FOR BROADCAST (OVERALL) APPLICATION**

**HOODED POWER-DRIVEN ROTARY TILLER** - Set to depth of 5 to 10 centimetres for annual grasses and broadleaf weeds.

**DISC** - Cross disc (twice at right angles) or in light soils, disc once with tandem disc followed by harrowing for additional mixing and to level the seed bed. In heavy soils, two discings will be necessary if the soil is cloddy. Mix to a depth of 5 to 10 centimetres by setting discs to cut 13 to 15 centimetres deep.

**SPRING-TOOTH CULTIVATOR** - Cross harrow or cultivate 2 to 4 times with teeth set to a maximum depth, followed by a float.

#### **PLANTING**

Except as indicated for flue cured tobacco, crops should be planted or seeded immediately after application to obtain maximum weed control benefits during the growing season. Do not use a drag behind the planter as it may concentrate TILLAM 7.2-E over the seed row and cause crop injury.

#### **CULTURAL PRACTICES FOLLOWING APPLICATION AND PLANTING**

TILLAM 7.2-E is not persistent in the soil and susceptible weeds germinating late in the season may not be controlled.

Cultivate to control these late germinating susceptible weeds, as well as those not susceptible to TILLAM 7.2-E. Do not cultivate deeper than the depth of herbicide incorporation.

#### **APPLICATION RATES**

##### **For Control of Annual Grasses, Broadleaf Weeds and Other Weeds**

<b>CROP</b>	<b>WHEN TO APPLY</b>	<b>DOSAGE BROADCAST LITRES/HECTAR E</b>	<b>REMARKS</b>
Sugar Beets	Before seeding	6.25-9.25	See directions for use.

Red Beets	Before seeding	6.25-12.25	See directions for use. Do not harvest beets or beet tops within 45 days of application.
Flue Cured Tobacco and Cigarette Burley Tobacco	Four days before transplanting	6.25-7.75	Use lower rate on light sandy soils. Use higher rate in heavier soils. Delay plant-4 days following application.
	Just prior to row fumigation	7.75	Use only well hardened vigorous transplants, as weak transplants may be injured by TILLAM 7.2-E.
Tomato (transplants)	Before transplanting	6.25-9.25	Use lower rate on light sandy soils. Use higher dosage rate in heavier soils. Do not use hotcaps.

#### APPENDIX I

Procedure for testing the compatibility of TILLAM 7.2-E with fluid fertilizers.

The following procedure is suggested for determining whether TILLAM 7.2-E may be combined with a specific fluid fertilizer for spray tank application.

#### Materials Required:

1. TILLAM 7.2-E
2. Fluid fertilizer to be used.
3. Adjuvant for fertilizer tank mix: Complex\*, Sponto 168-D\*, Unite\* or equivalent. The adjuvant that provides the best emulsification depends on the specific fertilizer under consideration.
4. Two one-litre, wide-mouth, glass jars with lids or stoppers.
5. Graduated pipet or cylinder.

6. Measuring cup (250 mL).

**Procedure:**

1. Pour 500 mL of the fluid fertilizer into each of the litre jars.
2. Add adjuvant to one of the jars and mix (see next rate table).
3. Add the TILLAM 7.2-E to both jars (see next rate table).
4. Close both jars with lid or stopper and mix the contents by turning the jars upside down ten times.
5. Inspect the surface and body of the mixture:
  - A. Immediately after completing the jar inversions.
  - B. After allowing the jars to stand quietly for 30 minutes.
  - C. And then again after repeating the jar inversions.

If a uniform mix cannot be made, the mixture should not be used. If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes, but remix readily and uniformly with 10 jar inversions, the mixture can be used if good agitation is maintained in the tank. If the mixture with the adjuvant is satisfactory, but the one without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first to the fluid fertilizer at a rate of 375 mL per 100 litres of fluid fertilizer, foaming can be minimized by using moderate agitation.

If nondispersible oil, sludge or clumps of solids form, the mixture should not be used.

\* Complex, Kalo Laboratories, Kansas City, Missouri; Sponto 168-D, Witco Chemical Corporation, Houston, Texas; Unite, Hopkins Agriculture Chemical Company, Madison, Wisconsin.

**Compatibility Test Table for TILLAM 7.2-E and Adjuvant\*  
with the Fluid Fertilizer**

Litres of Fluid Fertilizer Applied per Hectare	mL of TILLAM 7.2-E** to be added to 500 mL of Fertilizer
100	25.0

150	17.0
200	12.5
250	10.0
300	8.5
400	6.5

- \* A typical adjuvant rate of use is 375 mL per 100L of fluid fertilizer. Two (2) millilitres of adjuvant should be added to 500 mL of fluid fertilizer in order to equal a rate of 375 mL per 100 litres.
- \*\* Based on a rate of 5 litres of TILLAM 7.2-E per hectare in the fluid fertilizer volumes indicated. Adjust amount of pesticide proportionately to correspond with intended field rate (e.g. for field rate of 9.0 litres of TILLAM 7.2-E in 250 litres fluid fertilizer per hectare, add 18 mL (9L/5L x 10mL) TILLAM 7.2-E to each jar containing 500 mL of fluid fertilizer for compatibility testing purposes).

## APPENDIX II

### TILLAM 7.2-E Impregnation on Dry Bulk Fertilizers

**CAUTION:** TILLAM 7.2-E must not be impregnated on ammonium nitrate, sodium nitrate, or potassium nitrate. Such mixtures may cause explosion and fire.

TILLAM 7.2-E may be impregnated on many dry bulk fertilizers and applied and incorporated in the soil before planting for the control of grass and broadleaf weeds.

Field results have shown that TILLAM 7.2-E on dry bulk fertilizers gives weed control equal to TILLAM 7.2-E applied as a spray in water or liquid fertilizer. However, uniform impregnation of TILLAM 7.2-E on dry fertilizer particles and uniform application in the field are necessary to assure good results.

For impregnating TILLAM 7.2-E on dry fertilizers, use a closed rotary-drum mixer or a similar type of closed blender equipped with suitable spray equipment. The spray nozzle (or nozzles) should be positioned inside of the mixer to provide uniform spray coverage of the tumbling fertilizer. The physical properties of fertilizers vary, particularly in liquid absorptive capacity. When absorptivity

is sufficient, simple spray impregnation of the fertilizer with TILLAM 7.2-E provides a satisfactory, dry mixture. If the absorptive capacity is inadequate, use of a highly absorptive powder is required to provide a dry, flowable mixture. Microcel E (Johnson-Manville Products Corp.) is the recommended absorbent powder. It should be added separately and uniformly to the prepared TILLAM 7.2-E fertilizer mixture, in a quantity that is sufficient to provide a suitably flowable mixture. Generally, less than 2% by weight of Microcel E is required. The amount of TILLAM 7.2-E actually required in the manufacture of individual fertilizer mixtures should be determined carefully for each production operation. This is necessary to ensure that the amount of TILLAM 7.2-E actually contained in the mixture applied to the soil represents the correct rate of use.

All TILLAM 7.2-E supplementary literature instructions and label recommendations regarding rates per hectare, soil incorporation, application, cautions, general use precautions and other directions must be followed.

All regulations relating to bulk dry fertilizer blending, registration, labelling and application are the responsibility of the individual and/or company selling the fertilizer and TILLAM 7.2-E mixture.

A minimum of 200 kilograms and a maximum of 800 kilograms of approved ingredients impregnated with TILLAM 7.2-E at the recommended rate must be applied per hectare.

Nitrate fertilizers represent a potential explosive hazard, particularly in contact with organic substances. Do not impregnate TILLAM 7.2-E on ammonium nitrate. Do not use blended fertilizers containing ammonium nitrate, potassium nitrate, or sodium nitrate.

Bulk fertilizer impregnated with TILLAM 7.2-E should be applied immediately, not stored. It is recommended that all bulk containers be tightly covered while the product is being transported and applied to reduce chances of TILLAM 7.2-E loss via volatilization.

#### RECOMMENDED DRY FERTILIZER INGREDIENTS

	N	P	K
Ammonium Sulfate	21	0	0
Diammonium Phosphate	18	46	0
Potassium Chloride	0	0	60

Potassium Sulfate	0	0	52
Super-phosphate (single)	0	20	0
Triple super-phosphate	0	46	0
Urea	45	0	0
Ammonium phosphate-sulfate	16	20	0
11-48-0	11	48	0

**NOTE:** K-Mag and two MAP fertilizers (12.5-50-0, 11-54-0) have been shown to be compatible with TILLAM 7.2-E and are recommended for use.

**RATE CHART FOR THE IMPREGNATION OF  
DRY BULK FERTILIZERS WITH TILLAM 7.2-E**

Fertilizer Rate Per Hectare	6.25 L Per Ha.	7.75 L Per Ha.	9.25 L Per Ha.
	Litres/1,000 kg. of Fertilizer		
200 kg.	31.3	38.8	46.3
250 kg.	25.0	31.0	37.0
300 kg.	20.8	25.8	30.8
350 kg.	17.9	22.2	26.5
400 kg.	15.6	19.4	23.1
450 kg.	13.9	17.2	20.5
500 kg.	12.5	15.5	18.5
550 kg.	11.4	14.1	16.8
600 kg.	10.4	12.9	15.4
650 kg.	9.6	11.9	14.2
700 kg.	8.9	11.1	13.2

750 kg.	8.3	10.3	12.3
800 kg.	7.8	9.7	11.6

### **Resistance Management Recommendations**

For resistance management, Tillam 7.2E is a group 8 herbicide. Any weed population may contain or develop plants naturally resistant to Tillam 7.2E and other Group 8 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed:

#### **TO DELAY HERBICIDE RESISTANCE:**

- Where possible, rotate the use of Tillam 7.2E or other Group 8 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouring, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact representatives at (613) 787-5620 or [www.noracconcepts.com](http://www.noracconcepts.com)

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