



67760-44

10/16/2003

Page 1 of 16

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D.C. 20460

October 16, 2003

Kari E. Mavian  
Senior Regulatory Affairs Manager  
Cheminova, Inc  
Oak Hill Park  
Wayne, NJ 07470

OFFICE OF  
PREVENTION PESTICIDES AND  
TOXIC SUBSTANCES5635484

Subject: EPA Reg. No. 67760-44  
Dimethoate 4 E  
Label Amendment: Resubmission  
of the Label Deleting Household Ornamental Uses  
Your Letter Dated May 14, 2003

Dear Ms. Mavian:

The label amendment you submitted for the product referred to above has been reviewed by the Agency and is acceptable provided you do the following:

1. Move "Directions for Use, Agricultural Use Requirements, Non-Agricultural Use requirements and Storage and Disposal" sections to page 3 above the "General Information" section.

A stamped copy of the draft label is enclosed for your records. Submit one (1) copy of the final printed labeling before you release the product for shipment. Final printed labeling is the label with all the graphics that goes on the container. Should you have any questions, do not hesitate to contact the reviewer of this product, Mr. S. Onnithan at 703-605-0368.

Sincerely,

Daniel C. Kenny  
Product Manager - 01  
Insecticide Rodenticide Branch  
Registration Division (7505C)

Encl.

2716

# Dimethoate 4E

Systemic Insecticide

**ACTIVE INGREDIENT**

Dimethoate (o,o-dimethyl s-[n-(methylcarbamoyl) methyl] phosphorodithioate) 44.74%

**INERT INGREDIENTS**

55.26%

**TOTAL**

100.00%

Contains 4 pounds dimethoate per gallon. Contains petroleum distillates.

EPA Reg. No. 67760-44  
EPA Est. No. 655-GA-1

Manufactured For  
Cheminova, Inc.  
1700 Route 23  
Wayne, NJ 07470  
www.cheminova.us.com

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
**OCT 16 2003**

*Under the Federal Insecticide,  
Fungicide, and Herbicide Act,  
as amended, this pesticide  
registered under EPA Reg. No.  
67760-44*



**KEEP OUT OF REACH OF CHILDREN**  
**WARNING AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail).

**IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE,  
DAY OR NIGHT, 1-800-228-5635, Ext. # 153**

**FIRST AID**  
**ORGANOPHOSPHATE**

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Do not give any liquid to the person.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further 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 center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-228-5635 Ext. 153 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Dimethoate may cause cholinesterase inhibition. Atropine is antidotal. Contains petroleum distillate – vomiting may cause aspiration pneumonia.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
WARNING**

May be fatal if swallowed. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

**PERSONAL PROTECTIVE EQUIPMENT**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear

1. Long-sleeved shirt and long pants
2. Chemical-resistant gloves, such as Barrier Laminate, Butyl Rubber  $\geq$  14 mils, Nitrile Rubber  $\geq$  14 mils, or Viton  $\geq$  14 mils
3. Chemical-resistant footwear plus socks
4. Protective eyewear
5. Chemical-resistant headgear for overhead exposure.

For exposure outdoors, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P or HE filter. For exposures in enclosed areas, use a respirator with an organic vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Controls Statement**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

**USERS SHOULD:**

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to wildlife and aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Protective information may be obtained from your cooperative agricultural extension service.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use, spill, or store near heat or open flame.

4 8 16

## GENERAL INFORMATION

Dimethoate 4E is useful for control of certain pests of certain fruit crops, nuts, vegetables, and field crops. Dimethoate 4E may be applied by ground sprayers or by airplanes, mixing the Dimethoate 4E in water to form an emulsion spray solution. To make the spray solution, half fill the spray tank with water, agitate, add the proper amount of Dimethoate 4E and then fill the spray tank with water while still agitating. Continue to agitate during use.

When applying with ground sprayers, calibrate so as to apply the recommended amount of Dimethoate 4E in not less than 3 gallons of water per acre unless directed otherwise. Airplanes should spray the recommended amount of Dimethoate 4E in 3 to 10 gallons of water per acre unless directed otherwise. Always use sufficient water for adequate coverage of the crop foliage. The dosages given under DIRECTIONS FOR USE are the amounts of Dimethoate 4E to be applied per acre treated per application. Repeat application as necessary, unless otherwise directed in DIRECTIONS FOR USE. Where a dosage range is given use the lower rate in small or young plants or with light insect infestations; use the higher rate on large or more mature plants or with heavy insect infestations. The hazards and precautions for handling Dimethoate 4E in this container are equally applicable to it after dilution with water for spray application.

## APPLICATION THROUGH IRRIGATION SYSTEMS

Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you should have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

In a clean supply tank, mix the recommended amount of this product for acreage to be covered and the needed quantity of water.

This product should not be tank-mixed with other pesticides, surfactants, or fertilizers unless prior use has shown the combination noninjurious under your conditions of use.

Follow precautionary statements and directions for all tank-mixed products.

On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem and stage of growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury or illegal pesticide residues.

Meter this product into the irrigation water uniformly during the period of operation. Do not overlap application. Follow recommended label rates, application timing, and other directions and precautions for crop being treated.

Continuous mild agitation of pesticide mixture may be needed to assure a uniform application, particularly if the supply tank requires a number of hours to empty.

### SYSTEMS CONNECTED TO PUBLIC WATER SOURCES

Great care should be taken and properly maintained equipment should be used when connecting chemigation systems to public water supplies. The following information is provided for users who have diligently considered all other application and water supply options before electing to make such a connection.

Public water system means a system for the provision to the public of piped water for human consumption if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

### SPRINKLER IRRIGATION (FOLIAR SPRAY USES)

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves, such as Barrier Laminate, Butyl Rubber o 14 mils, Nitrile Rubber o 14 mils, or Viton o 14 mils, chemical-resistant footwear plus socks, protective eyewear, and chemical-resistant headgear for overhead exposure.

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children, pets and other unprotected persons out of treated areas until sprays have dried.

**Aerial Application:**

Automatic flagging devices should be used whenever feasible.

If human flaggers are employed, they must wear the protective clothing and respirator specified on this label.

**STORAGE AND DISPOSAL**

**DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.**

**STORAGE**

Store in a dry location away from children, animals, foods, feeds, and other agricultural chemicals. Keep container closed when not using. Do not allow water into container as this may cause deterioration of product. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. Do not store under conditions where temperatures may exceed 120°F or be below 45°F. Keep storage area locked when not in use. In the event of spillage or leakage, soak up material with absorbent clay, sand, sawdust, or other absorbent material. Scrape up and dispose of in accordance with information given under PESTICIDE DISPOSAL. If the label is lost, repackage usable product in a sound container and put on a new complete label. If a new label is not available, stick a label with "Dimethoate 4E, EPA Reg. No. 67760-44. ATTENTION: PESTICIDE: DO NOT USE. HOLD FOR FURTHER INSTRUCTIONS FROM CHEMINOVA. Call 1-800-548-6113. In case of fire or emergency, report at once by toll-free telephone to 1-800-424-9300.

**DISPOSAL**

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedure approved by state and local authorities.

Crop	Pest Controlled	Rate	Preharvest Interval (days)/ Comments
<b>FRUIT</b>			
Apples	Apple maggots* Codling moths**	1 pt./100 gals. water	28 Do not apply during the bloom period. Apply at petal-fall and every 10 to 14 days thereafter until control is achieved. Do not graze livestock in treated orchards. *Under heavy infestations, some sting injury may occur. **Midwest and Eastern states only.
Apples Pears	Aphids Leafhoppers Mites (except rust mites) Pear psylla	1/2 to 1 pt./100 gals. water	28 Do not apply when trees or substantial number of weeds in the orchard are in bloom. Do not graze livestock in treated orchards.
Grapes (California raisin, wine, table and canning grapes)	Grape leafhoppers Pacific spider mites	1/2 to 1 pt./100 gals. water Not to exceed 400 gals. per acre.	28 Apply lower or higher rate depending upon vine growth density. Repeat as necessary.
<b>CITRUS</b>			
Grapefruit Lemons Oranges Tangerines	Aphids	Ground equipment: 1/2 to 1 pt./100 gals. water. Apply as an outside coverage spray. Aircraft Equipment: 1 to 2 qts./acre in 5 to 10 gals. water.	15
	Mites (except rust mites)	Ground equipment: 1/2 to 1 pt./100 gals. water. Apply as a thorough distribution coverage spray.	15
	Scales (except black or snow)	Ground equipment: 1 to 1 1/2 pts./100 gals. water. Apply as a thorough coverage spray.	45

	Thrips	Ground Equipment: 1/2 to 1 pt./100 gals. water. Apply as a mist spray. Aircraft Equipment: 1 to 2 qts./acre in 5 to 10 gals. water.	15
	Whiteflies	Ground Equipment: 1 pt./100 gals. water. Apply as a thorough distribution coverage spray.	15
Do not apply when trees or substantial number of weeds in the grove are in bloom. Do not use on citrus seedlings. Make no more than 2 applications to mature fruit. Do not graze livestock in treated orchards.			
Grapefruit Lemons Oranges Tangerines (California, Arizona) (non-bearing)	Aphids Thrips	Foliar Spray: 1 pt./100 gallons of water	Repeat applications as necessary. May be applied in the year grapefruit, lemon, orange and tangerine trees begin to bear fruit. Do not graze livestock in treated orchards.
		Soil Drench (trees 1 to 3 years old): 2 qts./acre	Apply in the furrow or basin around the base of trees. Apply when insect injury to new growth appears. Do not apply to trees that will bear fruit within one year. Do not graze livestock in treated orchards.
Do not apply when substantial number of weeds in the orchard are in bloom.			

Citrus Trees:- - Nonbearing and Nursery Stock

Consult your state agricultural experimental station or state agricultural extension service for proper timing application.

<b>NUTS</b>			
Pecans	Aphids Mites Leafhoppers	Ground equipment: 2/3 pt./acre.	21 Do not graze livestock in treated groves.
	Aphids	Aerial Equipment: 2/3 pt./acre in a minimum of 5 gals. of finished spray.	
<b>VEGETABLE CROPS</b>			



Asparagus (Do not use on asparagus in California or Arizona)	Aphids Asparagus beetles	1 pt./acre	Apply after the last harvest at no less than 7 day intervals up to a maximum of 5 pt. per acre per year. Do not apply less than 180 days before harvest.
Beans, (green, lima, snap, dry)	Aphids Grasshoppers Leafhoppers Leaf miners Lygus bugs Mites	1/2 to 1 pt./acre	Beans may be harvested mechanically on day of application. Do not feed treated vines. Do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom.
Broccoli Cauliflower	Aphids	1/2 to 1 pt./acre	7
Brussels sprouts (For use in California only)	Aphids. Apply when insects first appear and repeat as needed.	Ground Equipment: 1 to 2 pts./acre in a minimum of 100 gals. of water per acre. Do not apply by air.	10 Do not exceed 6 applications per growing season. Do not feed or graze livestock in treated areas.
Cabbage	Aphids	1/2 to 1 pt./acre	7
Celery (Florida)	Leaf miners	Ground Equipment: 1 pt./acre	7
Head lettuce	Aphids Leafhoppers Leaf miners	1/2 pt./acre	7
Leaf lettuce Spinach Collards Kale Turnip (greens and roots) Mustard greens Swiss chard Endive (escarole)	Aphids Leafhoppers Leaf miners	1/2 pt./acre	14
Lentils	Lygus bugs	1 pt./acre	Do not apply within 14 days of harvest. Do not feed or graze treated plants. Do not make more than two applications per growing season. This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom.

	Aphids	1/2 to 1 pt./acre	Do not make more than two applications per growing season. Do not apply within 14 days of harvest. Do not feed or graze treated plants. This pesticide is highly toxic to bees, do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom.
Melons (except watermelons)	Aphids Leafhoppers Leaf miners Thrips	1 pt./acre	3
Watermelons	Aphids Leafhoppers Leaf miners	1/2 to 1 pt./acre	3
Peas	Aphids Leafminers Thrips	1/3 pt./acre	2 For use in California only. Multiple applications of Dimethoate 4E may be made at 1/3 pt/acre/application on succulent peas with pod with a maximum of 4 applications at 14 day intervals between applications (not to exceed 0.68 lb ai/acre/season) and a 2 day preharvest interval.  Do not feed or graze hay within 21 days after last application when a stationary viner is used. Do not feed or graze when a mobile viner is used.  Do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom.
Peppers	Aphids Leaf miners Maggots	1/2 to 2/3 pt./acre	Peppers may be harvested mechanically on day of application.

Potatoes	Aphids Grasshoppers Leaf miners Leafhoppers	1/2 to 1 pt./acre	Potatoes may be harvested mechanically on day of application.
Tomatoes	Aphids Leaf miners Leafhoppers	1/2 to 1 pt./acre	7
Where cabbage worms and cabbage loopers are a problem, the above rates of Dimethoate 4E are compatible with endosulfan, malathion or parathion. Use in accordance with the manufacturer's directions for control of these insects.			
<b>FIELD CROPS</b>			
Alfalfa	Aphids Grasshoppers Leafhoppers Lygus bugs Reduction of alfalfa weevil larvae	1/2 to 1 pt./acre	Do not apply to alfalfa in the bloom period. Do not apply within 10 days of harvest or pasturing. Make only one application per cutting. Effective only on cutting to which applied. Do not apply if bees are visiting the areas to be treated when crop or weeds are in bloom.
Field corn	Banks grass mites (excluding Trans-Pecos area of Texas) Aphids Bean beetles Two-spotted spider mites Corn rootworms (adult*)	2/3 to 1 pt./acre Aerial Application: spray over the foliage when mites appear. Apply above rates in 1 or more gals. of water per acre.	14 Apply as necessary. Make no more than three applications per year. Do not feed or graze within 14 days of last application.  *Note: Corn rootworm adult not registered for use in California.
	Grasshoppers	1 pt./acre. Ground Application: Apply above rate in 20 to 40 gals. of water per acre. Aerial Application: Apply above rate in 1 or more gals. of water per acre.	
Cotton (grown in California and Arizona)	Lygus bugs Leafhoppers Black fleahoppers	1/2 to 1 pt./acre	14 Repeat applications should not be made at intervals closer than 14 days. Make only 2 applications per season at the higher rate. Do not feed treated forage or graze livestock on treated fields.

12 7 16

Cotton	Aphids Mites Thrips Fleahoppers	1/4 to 1/2 pt./acre	14 Repeat applications should not be made at intervals closer than 14 days. Do not feed treated forage or graze livestock on treated fields.
	Lygus bugs	1/2 pt./acre	.....
Safflower (grown in California and Arizona)	Aphids Leafhoppers Lygus bugs Thrips	1/2 to 1 pt./acre	14 Repeat applications should not be made at intervals closer than 14 days. Make only 2 applications per season at the higher rate.
Sorghum (milo)	Aphids	1/2 to 1 pt./acre Ground Application: Apply above rates in 25 to 40 gals. of water per acre. Aerial Application: Apply above rates in 1 or more gals. of water per acre.	Do not feed or graze within 28 days of last application. Make no more than 3 applications as needed per season. Do not apply after heading.
	Banks grass mites (excluding Trans-Pecos area of Texas)	1 pt./acre Ground Application: Apply above rates in 25 to 40 gals. of water per acre. Aerial Application: Apply above rate in 1 or more gals. of water per acre.	
	Sorghum midges	1/4 to 1/2 pt./acre Aerial Application: Apply above rates in 1 or more gals. of water per acre	
Do not harvest grain within 28 days of last application.			
Soybeans	Mexican bean beetles Spider mites Bean leaf beetles Leafhoppers Aphids	1 pt./acre Aerial Application: Apply recommended rate in a minimum of 2 gals of water per acre.	28 Do not feed or graze within 5 days of last application.
	Grasshoppers	1 pt./acre Ground Application: Apply above rate in 25 to 40 gals. of water per acre. Aerial Application: Apply above rate in 1 or more gals. of water per acre.	
Wheat	Aphids (greenbugs)	1/2 to 3/4 pt./acre	Do not apply within 14 days of grazing immature plant. Do not harvest grain within 35 days of last application. Do not make more than 2 applications per season.

	Brown wheat mites	1/3 to 1/2 pt./acre	
	Grasshoppers	3/4 pt./acre	
<b>SEED CROPS</b>			
Alfalfa	Aphids Leafhoppers Lygus bugs Grasshoppers Reduction of alfalfa weevil larvae	1/2 to 1 pt./acre	Do not apply to alfalfa in the bloom period. Do not feed or graze livestock in treated crops, hay, threshings, or stubble within 10 days of application.
Grasses grown for seed	Winter grain mites Aphids Thrips Plant bugs	1/2 to 2/3 pt./acre	Do not graze or use seed or seed screenings for feed purposes. Do not apply within 14 days of harvest.

**ATTENTION: DO NOT USE ON SEED ONIONS, SEED CARROTS, OR SEED BERMUDA GRASS.**

### ORNAMENTALS

For Use On Ornamental Plants Grown In Nurseries Only. Not For Residential Use.

Dimethoate 4E is effective in controlling many sucking, piercing and chewing insects, including aphids, thrips, leafminers, scales, leafhoppers, and mites, that attack valuable ornamental plantings. For proper timing of treatments for the control of specific pests on ornamental plants, consult local agricultural authorities. Apply sprays uniformly and thoroughly to foliage, except as otherwise directed, when insects or their damage is first observed. Repeat applications as needed. Do not overdose or overspray. Use only on the ornamental plants listed below.

**IMPORTANT** - Do not use on ornamental plants grown in greenhouses, shade houses, Christmas tree and conifer plantations, landscapes, interiorscapes and residential, public, recreational, commercial, industrial and institutional establishments. When making soil injections, use a low pressure soil injection device. Always wear a full face shield, rubber gloves, long-sleeved shirt and rubber apron. **DO NOT** inject into soil areas where children or pets may dig or exhume treated soil. Do not make soil injections within 20 feet of edible crop gardens.

Plant	Pests Controlled	Rate	Comments
Hackberry	Hackberry nipplegall psyllid  Hackberry budgall psyllid	Soil injection: Use a 1:3 dilution (1 part Dimethoate 4E to 3 parts water).	Apply using a low-pressure injector. Inject 1 fl. oz. of dilution, 6 inches below ground, for each 1/2 inch of trunk diameter. Make insertions within dripline of tree.  Apply prior to bud break. Do not apply to plants that have not been established for at least 3 years.

Honeysuckle	Honeysuckle aphids	Soil injection: Use a 1:3 dilution	Apply using a low-pressure injector. Inject 1 1/4 fl. oz. of dilution, 6 inches beneath ground surface, for each 1/2 inch of trunk diameter. Do not apply to plants that have not been established for at least 3 years.
Pinyon pine	Pinyon needle scales	25 1/2 ozs. in 10 gals. water	Apply spray to egg masses at the base of the trees and to all rough bark and crevices that can be reached from the ground. Make this bark application when crawlers start to emerge from the eggs. Use hydraulic or backpack sprayer. Do not spray leaves or needles since phytotoxicity may result.
	Pinyon "pitch mass" borers Pinyon spindle gall midges Tip moths	Soil injection: Use a 1:3 dilution	Apply using a low-pressure injector. Inject 1 1/2 fl. oz. of dilution, 6 inches below ground surface, for each 1 inch of trunk diameter. Make insertions within dripline of tree. For spindle gall midge and tip moth apply in mid to late spring. For pinyon borer make application in early summer.
Douglas fir	Fir cone midges	6 1/2 ozs. in 10 gals. water	Make thorough coverage application when cones are closed and pendant. Use hydraulic or backpack sprayer.
Pines	Loblolly pine sawflies Nantucket pine tip moths	6 ozs. in 10 gals. water	Apply when most larvae are in the second and third instars.
	Zimmerman pine moths	3 1/2 ozs. in 10 gals. water	Spray in mid-April and/or in early September for larvae control.
Arborvitae	Aphids Bagworms Mites	3 1/2 ozs. in 10 gals. water	
Azaleas	Lace bugs Leafminers Mites Tea scales Whiteflies	1 3/4 ozs. in 10 gals. water	
Birch	Aphids Leafminers	1 3/4 ozs. in 10 gals. water	For leafminers, apply when leaves are expanded, about mid-May, and repeat in early July.

Boxwood	Leafminers Mealy bugs Mites	1 3/4 ozs. in 10 gals. water	For leafminers, apply in spring when leafminer flies first appear, or in early summer for control of larvae in the infested leaves.
Carnations	Aphids Thrips Mites	Soil drench: 2 ozs. per 500 sq. ft. of bed or bench	Apply in sufficient water for even distribution. Water in thoroughly following application.
Camellias	Aphids Camellia scales Mites Tea scales	Foliar Spray: 1 3/4 ozs. in 10 gals. water. Soil drench: 2 ozs. in 1 gal. water. For plants up to 6' tall. Increase rate proportionately for larger plants.	Foliar spray: Apply 2 sprays, 6 weeks apart the first year, followed by annual applications soon after first growth begins in the spring. Soil drench: Apply as a soil drench around the base of plants in early spring.
Cedar	Mites	3 1/2 ozs. in 10 gals. water	
Cypress	Bactra moth larvae	1 3/4 ozs. in 10 gals. water	Apply as a drenching spray.
Daylilies	Aphids Thrips	3 1/2 ozs. in 10 gals. water	
Euonymus	Aphids Scales	3 1/2 ozs. in 10 gals. water	
Ficus nitida	Thrips	1 3/4 ozs. in 10 gals. water	
Gardenias	Tea scales Whiteflies	1 3/4 ozs. in 10 gals. water	
Gerberas	Thrips	1 3/4 ozs. in 10 gals. water	
Gladiolus	Aphids Thrips	1 3/4 ozs. in 10 gals. water	
Hemlock	Mites Scales	1 3/4 ozs. in 10 gals. water	
Holly (English & American) not Burford variety	Leafminers Mites Soft scales	1 3/4 ozs. in 10 gals. water	For leafminers, apply in spring when leafminer flies first appear, or in early summer, for control of larvae in infested leaves.
Iris	Aphids Iris borers Thrips	3 1/2 ozs. in 10 gals. water	For borer control, spray when new leaves are 5 to 6 inches tall.
Juniper	Aphids Bagworms Midges Mites	3 1/2 ozs. in 10 gals. water	
Oak	Golden oak scales	3 1/2 ozs. in 10 gals. water	
Poinsettia	Mites Whiteflies Mealybugs Aphids	1 3/4 ozs. in 10 gals. water	

Roses	Aphids Leafhoppers Mites Thrips	1 3/4 ozs. in 10 gals. water	
Taxus (upright or spreading yews)	Fletcher scales Mealybugs Mites	3 1/2 ozs. in 10 gals. water	

**WARRANTY DISCLAIMER**

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

**INHERENT RISKS OF USE**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the seller. All such risks shall be assumed by Buyer.

**LIMITATION OF REMEDIES**

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Cheminova's election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

Cheminova shall not be liable for losses or damages resulting from handling or use of this product unless Cheminova is promptly notified of such loss or damage in writing. In no case shall Cheminova be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

5/2003