

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 8 1994

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

PM 14 400-778 P9 15 8

WILLARD F. CUMMINGS UNIROYAL CHEMICAL COMPANY, INC. 74 AMITY ROAD BETHANY, CT. 06524-3402

#### Subject: Label Amendment Submission of 12/07/93 in Response to PR Notice 93-7 EPA Reg. No. 400-278 DE-FEND E-267

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

#### WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

#### WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

BEFORE selling or distributing any product bearing the final printed labeling
AND

WITHIN one year from date of this acceptance.



Recycled/Recyclable Printed with Soy/Canola ink on paper that contains at least 50% recycled fiber Page 2

Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs (7505C) U.S. Environmental Protection Agency 401 M Street, SW Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs Room 266A, Crystal Mall 2 1921 Jefferson Davis Highway Arlington, VA 22202

Sincerely,

Jim Tompkins, Deputy Chief

Registration Division (7505W)

Attachment

Willard F. Cummings Uniroyal Chemical Company

Comments for: EPA REG. NO. 400-278 DE-FEND E-267

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

Change the chemical-resistant category statement on your label to state: "Some materials that are chemical-resistant to this product are listed below. If you want more options, follow instructions for category "F" on an EPA chemical-resistant category selection chart." The exact location is shown in Section A on Part 1 of the Product Worksheet.

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Add the statement "Keep unprotected persons out of treated areas until sprays have dried" to the Non-agricuktural Use Requirements Box. .

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# **DE-FEND® E-267** DIMETHOATE SYSTEMIC INSECTICIDE



ACCEPTED with COMMENTS In EPA Letter Dated

SEP	8	1994

#### COMPOSITION

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the posticide registered under EPA Reg. No. 400-378

005WPS

Dimethoate (0,0-Dimethyl S-(N-methylcarbamoylmethyl) phosphorodithioate)*			
Inert Ingredients:**			
Total:			
*Contains 2.67 lbs, per gallon,			

\*\*Contains xylene-range aromatic solvent

UNIROYAL CHEMICAL COMPANY, INC., Middlebury, CT 06749 EPA REG. NO. 400-278

EPA EST. NO.

Active Inoredient:

**NET WEIGHT** 

### **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 the label, find someone to explain it to you in detail.)

DE-FEND E-267 is an organophosphate insecticide.

#### STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Call a physician or Poison Control Center. Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration. Get medical attention. NOTE TO PHYSICIAN: For all exposures, administer atropine and 2-PAM as an antidote for acetylcholinesterase inhibition. Contains petroleum distillates.

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

May be fatal if swallowed or absorbed through skin. Harmful if inhaled. Causes eye and skin irritation. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist. Use only with adequate ventilation. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Wear eye protection, protective clothing, and rubber gloves. Remove contaminated clothing and wash before reuse.

#### 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 B and F on an EPA chemical resistance category selection chart.

Applicators and Other Handlers (other than mixers and loaders) Must Wear: Coveralis over short-sleeved shirt and short pants; chemical-resistant gloves, such as Nitrile rubber or Butyl rubber or Viton or Barrier laminate; protective evewear; chemical-resistant footwear plus socks; chemical-resistant headgear for overhead exposure: chemical-resistant apron when cleaning equipment.

Mixers, Loaders and Flaggers Must Wear: Coveralls over short-sleeved shirt and short pants; chemical-resistant gloves, such as Nitrile or Butyl or Viton or Barrier laminate; chemical-resistant footwear plus socks; protective eyewear; chemical-resistant headgear for overhead exposure; chemical-resistant apron when mixing or loading. For exposures in enclosed areas: A respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G). For exposure outdoors: Dust/ mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C). 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.

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

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:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing,

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.

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#### Environmental Hazardos 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 by cleaning equipment or disposal of wastes. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Protective information may be obt...ned from your Cooperative Agricultural Extension Service. PHYSICAL OR CHEMICAL HAZARDS

DO NOT USE, POUR, SPILL OR STORE NEAR HEAT OR OPEN FLAME. DO NOT STORE BELOW FREEZING TEMPERATURES.

#### **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), notification to workers, 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 over short-sleeved shirt and short pants · chemical resistant gloves such as hitrile rubber or butyl rubber or neoprene or viton or barrier laminate chemical-resistant footwear plus socks chemical-resistant headgear for overhead exposure with a with a particular and another of Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas. 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. . . <del>.</del> Do not apply this product in a manner as to directly or through drift-- Autombar expose workers or other persons. The area being treated must be vacated by unprotected persons. the of second the second subt

All homeowners, when applying this product must wear a) Impermeable gloves (for example, rubber gloves or plastic covered, reinforced gloves); b) Boots or boot covers; c) Long-sleeved shirt & long pants; d) Wide brimmed hat.

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#### RINSE AND DRAIN PROCEDURE FOR PESTICIDE CONTAINER

Empty container into spray tank. Then drain in vertical position for 30 seconds.

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Add measured amount of rinse water (or other diluent) so container is  $\frac{1}{2}$  to  $\frac{1}{3}$  diluent. For example, one quart in a one-gallon container.

Rinse container thoroughly, pour into tank, and drain 30 seconds. Repeat three times. Add enough fluid to bring tank up to level.

Follow CONTAINER DISPOSAL Directions.

#### USE DIRECTION.

#### HOUSEFLIES

RESIDUAL WALL SPRAYS: For the control of houseflies, including resistant strains, in dairy barns, hog pens, calf barns, poultry houses, and other farm buildings, apply a 1% residual spray to the ceilings, walls and stanchions. Prepare the spray by mixing 3/4 pint of DE-FEND E-267 in 3 gallons of water. Thoroughly wet all fly-resting areas to the point of runoff. One gallon of spray will cover 500 to 1,000 square feet of surface. DE-FEND E-267 controls flies up to 8 weeks or longer.

Repeat applications should be made when necessary. Remove dairy animals, calves under one month of age and poultry from building when applying residual wall sprays.

SPOT SPRAYS: For localized housefly control, apply a spray containing 6 ounces of DE-FEND E-267 in 5 quarts of water with a knapsack or similar type sprayer to areas frequented by flies, such as doo vays, and around windows. Repeat applications should be made when necessary. Good sanitation is a necessary part of any effective fly control program.

effective fly control program. MAGGOT SPRAYS: For the control of housefly maggots, mix 6 ounces DE-FEND E-267 in 5 quarts of water and apply as a coarse spray or with a sprinkling can to fly-breeding areas, such as poultry droppings in caged-layer houses, garbage dumps and manure piles.

Repeat application as additional manure or garbage is added.

GENERAL OUTSIDE USE: For the control of houseflies around homes and recreation areas, garbage cans, animal quarters, foodprocessing plants, warehouses, loading docks and refuse areas, thoroughly spray exposed surfaces, such as walls, fences, garbage and refuse containers with 3/4 pint of DE-FEND E-267 in 3 gallons of water.

Repeat applications should be made when necessary.

Do not contaminate feed and foodstuffs, drinking fountains, litter and feed troughs. Do not use in milk-processing rooms, including milk houses and milk storage rooms. Do not use in homes. Do not use in commercial food preparation areas or in edible products areas of food processing plants.

#### **ORNAMENTAL INSECTS**

DE-FEND E-267 is generally effective in controlling aphids, thrips, leaf miners, scales, leafhoppers, and mites. For proper timing of treatments for the control of specific pests on ornamental plants, consult local agricultural authorities. Make adequate sprays when pests appear or when damage is first observed. Do not over-dose or over-spray. Do not use on ornamental plants not listed. The uses listed are foliar sprays unless otherwise noted.

Omamental	Pest	Arnount Per 6 Gal.
Plants	Controlled	Water
Azaleas (Outdoor plants)	Lace Bugs Leaf Miners Miles Tea Scale White Files	1.5 oz.

Ornamental Plants	Pest Controlled	Amount Per 6 Gal/2 Water
Carnellias	Carnellia Scale Mites Tea Scale	1.5 oz. Folar 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 at the rate of 4 tablespoons per gallon of water per plant up to 8 feet tail. Increase the rate proportionately for larger plants.
Carnations	Aphids Thrips Mites	1.5 oz. Soil Drench: Apply as a soil drench at the rate of 4 fluid ounces per 500 square feet of Und or bench (5 qts, per ¼ acre) in sufficient water for even distribution. Water in thoroughly after application.
Cyperus	Bactra Moth Larvae	1.5 oz. Apply as a drenching spray.
Day Lillies	Aphids Thrips	3 02.
Roses (Outdoor Plants)	Aphids Leafhoppers Mites Thrips	1.5 oz.
Arborvitae	Aphids Bagworms Mites	3 œ.
Birch	Aphids Leaf Miners	<b>% oz.</b> For leaf miners apply when leaves are expanded (about Mid May) and repeat in early July.
Boxwood	Leaf Miners Mealy Bugs Mites	1.5 oz. For Haf miners apply in spring when leaf miner files first appear or in early summer for control of larvae in the infested leaves.
Cedar	Mites	3 oz.
Etionymous	Aphids Scale	3 oz.
Gardenias	Tea Scale White Flies	11/2 02
Gerberas	Thrips	11/2 02.
Gladiolus	Aphids Thrips	1½ 02.
Iris	Aphids Tris Borer Thrips	3 oz. For borer control spray when new leaves are 5 - 6 inches tail.
Poinsettias (Outdoor plants)	Mites White Flies Mealy Bugs Aphids	1½ oz.
Ficus nitida (Outdoor plants)	Thrips	1½ oz. Note: Do not use on potted plants.
Holly (English and American, not Burlord varlety)	Leaf Miners Mites Soft Scale	1½ oz. For leaf miners apply in spring when leaf miner flies first appear or in early summer for the control of larvae in infested leaves.
Hemiock	Mites Scale	1½ oz.
Juniper	Aphids Bagworms Midges Mitas	3 oz.
Oak	Golden Oak Scale	
Pine	Aphids Bagworms European Pine Shoot Moth Nantucket Pine Tip Moth Zimmerman Pine Moth	3 oz.
Roses	Aphids Leafhoppers Mites Thrips	Amount per acre: 1 pt. in 5 - 10 gal. water by air. 1 pt. in 100 gal. water ground application.
Taxus	Fletcher Scale Mealy Bugs Mites	3 02.

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#### **AGRICULTURAL INSECTS**

DE-FEND E-267 may be used for control of certain insects on crops including leafminers, lygue bugs, aphids, thrips, leafhoppers, grasshoppers and mites. Forage, fruit, vegetables and staple crops on which DE-FEND E-267 may be used include apples, beans, cole crops (broccoli, cabbage, cauliflower), cetton, lettuce, pears, peas, peppers, potatoes, spinach, tomatoes. See table for insects, crops and conditions under which DE-FEND E-267 may be used. DE-FEND E-267 kills insects by systemic, contact and residual action. Excellent control is obtained of insects on the underside of leaves and stems or rolled into leaves as well as those which are more exposed to the spray.

FOR GENERAL APPLICATION by commercial growers or commercial applicators, on the crops listed, apply recommended amounts in sufficient water for good coverage.

CHEMIGATION: Refer to "APPLICATION THROUGH IRRIGATION SYSTEMS -CHEMIGATION" for use directions for chemigation. Do not apply this product through any irrigation systems unless the directions for chemigation are followed.

FOR AERIAL APPLICATION use the recommended amount of DE-FEND E-267 in 2 to 10 gallons of water. Avoid drift to adjacent crops. Repeat application as necessary unless otherwise specified. Consult agricultural extension or agricultural experiment station specialists regarding recommendations of time of application. Apply when alr is calm and the temperature is below 60°F. Do not apply during bloom period or on citrus seedlings. Make no more than 2 applications to mature fruit.

CROP	PESTS CONTROLLED	MATE	LIMITATIONS
eppers	Aphids, Leaf miners, Maggots	¥,−1 pint/Acm	Peppers may be harvested on day of application,
<sup>1</sup> scans	Aphids	1 pint/Acre	Apply with ground equipment only. Do not graze illustock in instand groves. Allow 21 days between last application land harvest.
Valla	Achida, Leafhoppers, Lygus bugs Grasshoppers Reduction of Alala Worvil larvas	¥4 - 1¥2 pints/Acru	Do not feel livestock on treated crope, threshings or hay treated less than 10 days before harvest or pasture stubble sconer than 10 days after treatment. Effective only on cutting to which applied. Make only one application per year. This pesticide is highly toxic to bees, do not apply if bees are visiting.
Cotton (grown in AZ & CA)	£ygus bugs Leafhoppers Thripe Black Reahoppers	% - 1½ pints/Acre	Do not apply less than 14 days before harvest. Do not repeat application within 14 days. Do not feed insaled forage or graze livestock on insaled fields. Make only two applications per season as needed.
afflower (grown in CA)	Aphids Leafhoppers Lygus bugs Thrips	¥₄ - 1½ pints/Acre	Do not apply tess than 14 days before harvest. Repeat applications should not be made at intervals closer than 14 days Do not make more than two applications at the higher rate.
fornatioes Watermetions Wetons	Aphids Leafminers Leafhoppers	¥, - 1½ pints/Acre	Do not apply less than 7 days before harvest.
Mustard greens Swiss chard Endive (escarole)	Aphids Leathoppars Leatminers	7, pint/Acre	Do not apply less than 24 days before harvest.
Vheat (grown in Texas, Oldahoma,	Aphids	Y <sub>4</sub> - 1Y <sub>2</sub> pints/Acre	Do not apply within 14 days of grazing immature plant. Do not harvest grain within 80 days of last application. Do
Kansas, South Dakota	Brown wheat mile	X <sub>3</sub> - X <sub>3</sub> pints/Acre	not make more than 2 applications per growing season.
iorghum	Greenbug	% - 1½ pints/Acre	(½ to ½ pt/Acre for light infestations on young sorgham prior to head formation.) Do not apply after heading. Do not feed or graze within 28 days of last application. Mele only three ground applications per season as needed.
ield Com	Beniss Grace Mite (except Trans-pecos area of Texas)	1 - 1% pints/Acre	Broadcast by air. Spray over the foliage when mites appear. Apply in ratio of 1 part DE-FEND E-267 in 20 quarts of water. Do not use less than 2½ gallons per acre for 1 pint rate and 3½ gallons per acre for 1½ pint rate. Days between last application and harvest 14 (foraging) 42 (grain). Apply as necessary. Make no more than 3 applications per year. Foliar Application. Do not apply to corn during the pollen- shed period.
Cotton (Early Season)	Thrips, Mites, Aphids	¥3 - ¥3	Do not apply less than 14 days before harvest. Do not repeat application within 14 days. Do not feed treated forage or graze livestock on treated fields.

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	PESTS CONTROLLED	RATE	LIMITATIONS	
itaices	Aphida, Leaf minara Laafhoppara	% - 1½ pints/Acre	Potatoes may be harvested application.	on day of
ens preen, lima, nap, dry)	Aphids, Leaf miners Leafhoppers Millas, Lygus bugs	¥4 - 1½ pints/Acre	Beens may be hervested or application. Do not feed the This pesticide is highly tool do not apply if bees are visi	alad vinas. c to baas,
occoli willower ubbage	Aphida	¥4 - 1½ pints/Acre	Do not apply iess than 7 de harvest.	ys before
sed lettuce	Aphids, Lasthoppers Lost miners	; Y, pints/Acre	Do not apply less than 7 da harvest.	ys before
nd istuce pinach, pilards, Kale, amip (greens and roots)	Aphida, Lauthoppers Laut miners	%, pints/Acre	Do not apply less than 24 o before harvest.	inys
185	Aphids	½ pints/Acre	Peas may be harvested on application. Do not feed or which 21 days after lest a when a stationary viner le feed or graze when a mobi used. Do not make more to application per growing se pesticide is highly toxic to apply if bees are visiting.	graze hay plication used. Do no le viner is han one ason. This
pples ears (bearing & non bearing)	Aphids, Leathoppers Pear Psylla, Milles (except rust milles)	s, ¥ <sub>4</sub> - 1½ pints/100 gais, water	Foliar application: Do not a trees or substantial numbi in the orchard (grove) are not apply less than 26 day harvest. Do not graze lives cover crops in treated orci Application: Do not apply substantial numbers of we orchard (grove) are in bloo	ers of weed in bloom, ( s before lock on merds, Folia when trees weds in the
Rrus non bearing) (AZ & CA)	Thrips, Aphids	In the furrow or so soon as insect inju bearing trees. Nors the year trees begin cover crops in trea when trees or subs	r trees 1 - 3 years old apply 3 q il ring around the base of the to ry to new growth begins. Use ( sery stock application should 1/ n to bear truit. Do not graze two ted orchards. Foliar Application stantial numbers of weeds in th rr Do not reenter treated fields	ee. Apply a only on non of be made islock on is Do not ap ie orchard
emons		• • • <b>P</b>		_
ranges	Aphids, Thrips	water. Apply as an Aertal Equipment: 20 gals water. Do n cover crops in traa Application: Do no substantial numbe orchard (grove) ar more than 2 applic	t: $\frac{1}{2}$ - $\frac{1}{2}$ pts/100 gais. cutside coverage spray. 3 to 6 pts/Acre in 15 to not graze livestock on dud orchards. Foliar 4 apply when trees or rs of weeds in the e in bloom. Make no cations to mature fruit. thed fields for four days.	15
	Aphids, Thrips Mites	water. Apply as an Aertal Equipment: 20 gals water, Do cover crops in tra Application: Do no substantial numbe orchard (grove) ar more than 2 applic Do not reenter tres Ground Equipment water. Apply as a 1 coverage spray. Do no cover crops in Application: Do no substantial numbe orchard (grove) ar more than 2 applic	cutside coverage spray. 3 to 6 pts:/Acre in 15 to not graze livestock on due orchards. Foliar t apply when trees or rs of weeds in the e in bloom. Make no cations to mature fruit.	46
Tranges Grapetruit Tangerines		water. Apply as an Aertal Equipment: 20 gals water. Do cover crops in traa Application: Do no substantial numbe orchard (grove) ar more than 2 applic Do not reenter trea Ground Equipmen water. Apply as a coverage spray. D on cover crops in Application: Do no substantial numbe orchard (grove) ar more than 2 applic Do not reenter trea Ground Equipment water. Apply as a Do not graze lives treated orchards. I apply when trees of weeds in the or bloom. Make no n	cutside coverage spray. 3 to 6 pts:/Acre in 15 to not graze livestock on and orchards. Follar 4 apply when trees or ris of weeds in the e in bloom. Make no cations to mature fruit. Hed fields for four days. A $\frac{1}{2} + \frac{1}{2} \text{ pts}/100 \text{ gals.}$ thorough distribution to not graze livestock treated orchards. Follar A apply when trees or ris of weeds in the re in bloom. Make no cations to mature fruit.	

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#### APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION

Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; flood (basin); furrow; border; or drip (trickle) irrigation system(s). 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 have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation systems (including greenhouse systems) used for pesticide application to a public water system unless the pesticide labelprescribed 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 neculasary adjustments should the need arise.

Mix in clean supply tank the recommended amount of this product for acreage to be covered, and 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 tankmix 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 crop 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.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such 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, quickclosing 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 systems 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 positive displacement injection pump (e.g., diaphragm pum<sup>-</sup>) 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 CHEMIGATION (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, quickclosing 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 systems 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 preusure 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 positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials

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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.

FLOOD (BASIN), FURROW AND BORDER CHEMIGATION (SOIL DRENCH USES)

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from the backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

a. 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.

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

c. 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 systems is either automatically or manually shut down.

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

e. 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.

f. Systems must use a metering pump, such as 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.

DRIP (TRICKLE) CHEMIGATION (SOIL DRENCH 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, quickclosing 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 systems 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 mu: t 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 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.

#### **STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage and 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: Plastic:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT NOTICE—Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

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