

AUG 3 1987

Mr. Jan Brill  
Technical Director  
Elco Manufacturing Company  
111 3rd Street Sharpsburg  
Pittsburgh, PA 15215

Dear Mr. Brill:

Subject: General Revision of Label  
ELCO Dursban 2E  
EPA Registration No. 1941-51  
Your Application Dated February 18, 1987

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

The changes listed below must be made on this label before you release it for shipment. Submit five (5) copies of final printed labels for our records.

1. Your Environmental Hazards paragraph must be placed under your Precautionary Statements section directly after your Hazards to Humans paragraph and read:

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish, birds and other wildlife. Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

This product is highly toxic to bees exposed to direct treatment or residues on plants. Protective information may be obtained from your Cooperative Agricultural Extension Service.

15093:C:Edwards:E-10:KENCO:7/29/87:8/6/87:NeeCee:lisa:jh:NeeCee

**CONCURRENCES**

SYMBOL	ORIGINATOR							
SURNAME								
DATE								

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- 2. Include a Note to Physician after your Statement of Practical Treatment or in your Hazards to Humans paragraph to read:

Note to Physician: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopan, may be therapeutic if used early; however, use only in conjunction with atropine.

Sincerely yours,

Dennis H. Edwards, Jr.  
 Product Manager (12)  
 Insecticide-Rodenticide Branch  
 Registration Division (TS-767C)

Enclosure

3/4

**ACCEPTED**

**AUG 3 1987**

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 1941-51

# ELCO DURSBAN

**PHYSICAL-CHEMICAL HAZARDS**  
Do not use or store near heat or open flame.

**DIRECTIONS FOR USE**  
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.  
Do not allow children or pets to contact treated areas or surfaces until spray has dried.

**DOSAGES and DILUTIONS for USE on ORNAMENTAL PLANTS**

Pest Controlled	Amount of ELCO DURSBAN 2E in Water to Make	100 gallons	1000 gallons
Aphids, Bagworms, Beet webworm caterpillar, Fall webworm, Greenhouse flies, Orange-striped budworm, Spittlebugs, Whiteflies, Yellow-necked caterpillar	0.5 fl. oz.	1.0 fl. oz.	1 pint (Equivalent to 8 ounces of chlorpyrifos per 100 gallons)
Culicids, Leafhoppers, Meadowbugs, Marsh webworm, Pearlimb caterpillar (Threat to roses)	1.0 fl. oz.	2.0 fl. oz.	1 quart (Equivalent to 8 ounces of chlorpyrifos per 100 gallons)
Ants, Fleas, Lice, Scale crawlers, Oak leucanum, Pine needle, Tea, White Peach	2.0 fl. oz.	4.0 fl. oz.	2 quarts (Equivalent to 1 pound of chlorpyrifos per 100 gallons)

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**DOSAGES and DIRECTIONS for USE on TURF**

Pest	Dosage ELCO DURSBAN 2E per 1000 sq. ft.	Remarks
Ants, Armyworms, Brown dog tick, Chiggers, Chinch bugs, Clover root, Crickets, Culicids, Earthworms, Fleas, Greenhouse flies, Sod webworms	1.0 fl. oz.	Spray when bees are not active (see label) when needed. For sod webworms spray morning or evening in the treated area for 12 to 24 hours after treatment.
Fungus (Hyphomycetes) weeds	3.0 fl. oz.	Spray suspected problem areas in mid-April and again in May. May or as recommended by your local Agricultural Extension Service Specialist for your area.
White grubs (European chafers and Japanese beetle larvae only)	3 to 4 fl. oz.	For white grubs spray when grubs are young and active. Spray after the soil surface, usually during one July and August or as recommended by your local Agricultural Extension Service Specialist for your area. Immediately after spraying, irrigate the treated area with 1 to 1.5 inch of water to wash the insecticide into the underlying soil.

1.0 fl. oz. per 100 sq. ft. • 1.0 fl. oz. per 5000 sq. ft. • 1 quart per 10,000 sq. ft. • 2 quarts per acre

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED**—Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or give anything by mouth to an unconscious person. Get medical attention.  
**IF ON SKIN**—Wash skin with soap and water.  
**IF IN EYES**—Flush contaminated eyes with flowing water for at least 15 minutes and get medical attention.  
**NOTE TO PHYSICIAN:** Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine is an antidote.

**ENVIRONMENTAL HAZARDS**

This product is highly toxic to bees exposed to direct treatment or residues on plants. Protective measures should be taken. Consult your local Cooperative Agricultural Extension Service.  
ELCO Dursban 2E is toxic to fish, birds and other wildlife. Keep out of lakes, streams, ponds, etc. Crabs may be killed at application rates recommended on this label. Do not apply where these are likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate or disposal of wastes. Apply this product only as specified on this label.

**STORAGE AND DISPOSAL**

**STORAGE**—Keep away from food, feedstuffs, and domestic water supplies. Keep container closed.  
**DISPOSAL**—Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide spray mixture or residue that cannot be used or chemically reprocessed should be disposed of by Federal, State or local disposal authorities.  
Do not reuse empty container. Dispose of in an approved landfill or bury in a safe place. Consult Federal, State or local disposal authorities for approved alternative procedures.

**ACTIVE INGREDIENTS:**

Chlorpyrifos (O, O-diethyl O-(3,5,6-trichloro-2-pyridyl) phosphorothioic acid) . . . . .  
Aromatic Petroleum Derivative Solvent . . . . .

Deodorized kerosene . . . . .  
INERT INGREDIENTS . . . . .

This Product Contains 2 Pounds of Chlorpyrifos per Gallon

Dursban is a trademark of the DOW CHEMICAL COMPANY

**WARNING**

**KEEP OUT OF REACH OF CHILDREN**  
MAY BE FATAL IF SWALLOWED. MAY BE ABSORBED THROUGH SKIN.  
MAY BE INJURIOUS TO EYES AND SKIN. COMBUSTIBLE.  
SEE SIDE & BACK PANELS FOR ADDITIONAL PRECAUTIONS

ELCO MANUFACTURING CO.  
111 THIRD STREET PITTSBURGH, PA 15215

**NET CONTENTS:** \_\_\_\_\_

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS ( & DOMESTIC ANIMALS )**

**WARNING**

KEEP OUT OF REACH OF CHILDREN. MAY BE FATAL IF SWALLOWED. MAY BE ABSORBED THROUGH SKIN. MAY BE IRRITANT TO EYES AND SKIN.

Do not get it on your face, in your eyes or on your skin. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid breathing vapors and spray mist. Handle concentrate in ventilated area. Avoid spraying food crops.

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions 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.

**CONDITIONS AND RATES TO USE  
FOR MOSQUITO CONTROL**

Condition of Area to be Treated	Amount to Use Per Acre		Number Acres Treated per Gallon of E.C.O. Dursban 2E
	E.C.O. Dursban 2E (1 gallon)	Chlorpyrifos (1 gallon)	
Large Corpses (1000 sq ft)	0.1 to 0.2	0.025 to 0.05	10 to 40
Medium to Small Corpses (500 sq ft)	0.2 to 0.4	0.05 to 0.1	5 to 20
Small to Very Small Corpses (250 sq ft)	0.4 to 0.8	0.1 to 0.2	2 to 10
Very Small Corpses (100 sq ft)	0.8 to 1.6	0.2 to 0.4	1 to 2

† The higher dilutions will give faster knockdown and longer residual control when used in areas of high mosquito activity.

**PEST INDOORS:** General Information Use E.C.O. Dursban 2E insecticides to control the pests indicated in the areas listed below by application at a 0.25% or 0.5% chlorpyrifos spray. Use the 0.25% spray to control light infestations and the 0.5% spray to quickly reduce heavy infestations or as directed to prepare the spray. Dilute E.C.O. Dursban 2E with water or with a suitable base oil as shown in the following **SPRAY DILUTION CHART**. Repeat the treatment as needed.

Use only deionized or distilled water for oil-based sprays to be applied in food handling equipment.

**SPRAY DILUTION CHART**

Gallons of Spray Mixture Desired	Pest Control E.C.O. Dursban 2E to Use	
	0.25% spray	0.50% spray
Water-based Spray		
1	1/4	2 1/2
2	1/2	5
3	3/4	7 1/2
4	1	10
5	1 1/4	12 1/2
6	1 1/2	15
7	1 3/4	17 1/2
8	2	20
9	2 1/4	22 1/2
10	2 1/2	25
Oil-base spray††		
1	1	2
2	2	4
3	3	6
4	4	8
5	5	10
6	6	12
7	7	14
8	8	16
9	9	18
10	10	20

†† Note: 1 1/2 oz. = 2.5 cc. 1000 cc. = 1.000 liter.  
†† Calculated on basis of standard reference.

**To Be Applied Only By or Under the Supervision of Pest Control Operators, Public Health Organizations, Mosquito Abatement Districts, and Other Trained Personnel Responsible for Insect Control Programs**

Note: Where quick "knockdown" and/or "killing action" is desired, dichlorvos (DDVP) or pyrethrin may be added to the spray mixture containing E.C.O. Dursban 2E insecticide for best results. Use dichlorvos at a concentration of 0.25% in both water and oil-base sprays, use pyrethrin at 0.25% in water-base and 0.15% in oil-base spray. Consult labeling for the dichlorvos or pyrethrin product used to determine the amount needed to give the desired spray concentration. Also read and observe all use and handling precautions for these products. Do not use E.C.O. Dursban 2E in combination with dichlorvos (DDVP) or pyrethrin for treatment of food areas or food handling establishments.

Application Within Food Handling Establishments (Process Other Than Private Residences in Which Food is Held, Processed, Prepared or Served) Including, but Not Limited to, Restaurants, Grocery Stores, Schools, Bowling Alleys, Canteens, and Green Mills:

Use as a spot treatment to control cockroaches (including strains resistant to certain other insecticides), ants, crickets, firebrats, silverfish and spiders in and around both food and nonfood areas by application as a coarse, low pressure (20 psi or less) spray to localized areas where the above pests have been seen or are suspected of hiding or entering. Apply only enough spray to thoroughly cover the surfaces treated using special care to avoid unnecessary runoff. Do not introduce the spray into the air or allow the spray to contact food or food-contacting surfaces. Areas treated may include dark corners of rooms and closets, along and behind baseboards, beneath and behind stoves, refrigeration units and similar food preparation areas and equipment, floor drains, and around plumbing and other utility installations. For ants apply to ant trails and wherever these pests may find entrance. Spot treatment may encroach cracks and crevices treatment by applying small amounts of material directly into openings leading to voids and hollow spaces in walls, equipment legs and bases or which carry off points between different elements of construction or between equipment and floors. Equipment capable of delivering a pinpoint of insecticide should be used. Repeat treatment as needed but not more often than once every 7 days in restaurants and similar food service establishments or more often than once every 14 days in other types of food handling establishments. In case of emergency (call backs), E.C.O. Dursban 2E may be applied only 2 days from last treatment but emergency use should be limited to once per month.

Applications of the product in food handling establishments other than as a spot and/or crack and crevice treatment are not permitted.

Application Within Residential Buildings Including Homes and Apartment Buildings and Within Nonfood Areas of Industrial, Institutional, and Commercial Buildings Including Hospitals, Stores, Manufacturing Plants and Warehouses: For Spot Treatment Only -- Apply as a coarse spray or with a paint brush to localized areas where cockroaches (including strains resistant to certain other insecticides), ants, clover mites, crickets, firebrats, silverfish, and spiders are found or normally occur including dark corners of rooms and closets, cracks and crevices in walls, along and behind baseboards, beneath and behind stoves, refrigerators and cabinets, around plumbing and other utility installations. For ants apply to ant trails, also around doors and windows and wherever else these pests may find entrance. For clover mites use a 0.5% spray only. Note: A period of 4 to 7 days is normally required for maximum effect on cockroaches.

For control of carpet beetles, thoroughly apply a 0.5% spray as a spot treatment along baseboards and edges of carpeting under carpeting, rugs and furniture, in closets and on shelving and wherever else these insects are seen or suspected.

For control of brown dog ticks, thoroughly apply a 0.5% spray as a spot treatment to infested areas such as bed beds and riving quarters, nearby cracks and crevices, along and behind baseboards, window and door frames and localized areas of floor and floor covering where these pests may be present. Old bedding of pets should be removed and replaced with clean fresh bedding and treated. Do not treat pets with this product.

Attention (Pest Indoors): Do not apply water-base sprays of the product in conduits, motor housings, junction and switch boxes or other electrical equipment because of possible shock hazard. There is need to treat such areas use only oil-base sprays. Prior to application de-energize electrical equipment. After application allow 15 minutes for evaporation before starting motors or closing switches in the "ON" position. Do not use in poultry houses or other animal buildings. Do not allow spray to contact food, feedstuffs, and water supplies. Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product. Remove pets and cover fish bowls (aerated) before spraying. PESTS OUT-OF-DOORS: General Information Use E.C.O. Dursban 2E for control of certain pests on outside surfaces of buildings and on lawns and ornamental plants, for area control of ticks and chiggers and for mosquito control. Consult the following directions for dosage and application details to control the pests listed.

Pests on Outside Surfaces of Buildings: Use E.C.O. Dursban 2E at the rate of 2 1/2 fluid ounces per one gallon of water (0.5% chlorpyrifos emulsion) to control ants, cover this cockroaches, crickets, earwigs, fleas, firebrats, mosquitoes, sawflies, spiders and ticks by application as a spray or with a paint brush to outside surfaces of buildings, including corners, screens, window frames, eaves, porches, garages, refuse dumps and other areas where these pests congregate or have been seen. Do not treat or allow the spray to encroach on; ornamental flowering plants, shrubs, trees, evergreens, etc. because of possible injury. Repeat treatment as needed to maintain effectiveness.

Note: To help prevent infestation of buildings by ants, crickets, earwigs, mosquitoes, and sawflies (pillbugs), treat a band of soil 6 to 10 feet wide around and adjacent to the buildings also the building foundation to a height of 2 to 3 feet, where pests are active and may find entrance. Use 1 pint of E.C.O. Dursban 2E to 100 gallons of water and apply as a coarse spray at the rate of about 10 gallons spray mixture per 1000 sq. ft. to thoroughly and uniformly wet the band area.

Pests of Ornamentals: Use E.C.O. Dursban 2E to treat flowers, shrubs, vines, shade and flowering trees, and evergreens found to be infested with the pests listed in the following table. Dilute E.C.O. Dursban 2E with water according to directions given in the table and apply using suitable hand or power spray equipment in a manner to provide complete and uniform coverage. For best results apply a wetting spray to both upper and lower leaf surfaces and injected into and thru areas. Attempt to penetrate dense foliage but avoid over spraying to the point of excessive runoff. Treat when pests appear and repeat at 7 to 10 day intervals, if needed. Note--Do not use on azaleas, camellias, clematis, rose bushes, or variegated ivy because of possible injury to these plants.

Note: Mosquito control on areas treated for control of turf and ornamental plant pests will be needed for varying periods of time after treatment, depending on moisture of treated areas to weathering conditions.

Area Control of Ticks and Chiggers: Use E.C.O. Dursban 2E to control ticks and chiggers infesting non-cropland areas such as roadsides, footpaths and trails, picnic and camping sites, parks and other recreational areas where these pests are present and create a nuisance or possible public health problem. Apply E.C.O. Dursban 2E in water at the rate of 1 pint per acre (equivalent to 1 1/2 oz. per 2,700 sq. ft.) using a hydraulic sprayer, mist applicator, knapsack sprayer or other suitable hand or power spray equipment. Treat low underbrush, grassy areas, weeds and ground surface and debris using enough spray volume to obtain thorough coverage. Apply 40 to 100 gallons per acre.

Attention (Area Control of Ticks and Chiggers): Do not allow public use of treated areas during application or until spray has dried.

Mosquitoes: Apply E.C.O. Dursban 2E to mosquito infested, non-crop areas according to the conditions and rates shown in the following table. Use E.C.O. Dursban 2E in either water or oil, such as gasoline or No. 2 fuel oil, using sufficient spray volume to give uniform coverage of areas treated. Apply the spray using suitable application equipment such as hand and power ground sprayers, mist applicators and aerial spray equipment.

Warning (Mosquito Control): Read complete Environmental and Use Precautions and consult your State Fish and Game Department before using this product for mosquito control.

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**BEST AVAILABLE COPY**

Mr. Kevin Miller  
Manager of Regulatory Affairs  
B&G Company  
10539 Maybank Drive  
P.O. Box 20372  
Dallas, TX 75220

Dear Mr. Miller:

Subject: Updated Label  
DOR-CHEX  
EPA Registration No. 8612-73  
Your Application Dated May 1, 1987

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely yours,

Dennis H. Edwards, Jr.  
Product Manager (12)  
Insecticide-Rodenticide Branch  
Registration Division (TS-767C)

Enclosure

15089:I; Edwards:E-5;KENCO:7/15/87;7/24/87;EK:vo:teg

CONCURRENCES

SYMBOL	ORIGINATOR							

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