

US EPA ARCHIVE DOCUMENT

Sh. Whnessy No.: 059101

Date out of EAB: 17 APR 1984

To: J. Ellenberger  
Product Manager 12  
Registration Division (TS-767)

From: Samuel M. Creeger, Chief  
Environmental Chemistry Review Section 1  
Exposure Assessment Branch  
Hazard Evaluation Division (TS-769c)



COPY

Attached, please find the EAB review of:

Reg./File No.: 464-448

Chemical: Chlorpyrifos

Type Product: Insecticide

Product Name: Lorsban 4E

Company Name: Dow

Submission Purpose: add use on asparagus

ZBB Code: 3(c)(7)

Action Code: 335

Date In: 2/23/84

EAB No.: 4206

Date Completed: 4/17/84

TAIS (Level II) Days

Deferrals To:

64

0.5

Ecological Effects Branch

Residue Chemistry Branch

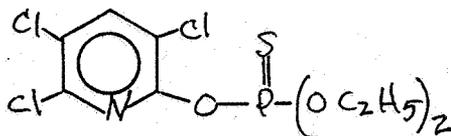
Toxicology Branch

1.0 INTRODUCTION

Chemical Name and Type of Pesticide: chlorpyrifos, O,O-diethyl O-(3,5,6-trichloro-2-pyridyl)phosphorothioate, insecticide.

Trade Name: LORSBAN 4E Insecticide

Chemical Structure:



Dow Chemical is requesting the addition of asparagus to its LORSBAN 4E label.

2.0 DIRECTIONS FOR USE

See attached label.

3.0 DISCUSSION OF DATA

No new data submitted.

4.0 RECOMMENDATION

4.1 The environmental fate data in our files supports the registration amendment to add use on asparagus to the LORSBAN 4E label.

4.2 EAB notes that the soil photolysis data gap still exists. A recent review (2 Feb. 1984) found the submitted studies unacceptable.

*Herbert L. Manning*  
Herbert L. Manning, Ph.D.  
Review Section #1  
EAB/HED

2

**SPECIMEN LABEL**  
REDUCED TO 55%



# Lorsban

## AE insecticide

*For Control of Various Insects  
Infesting Certain Field, Fruit, Nut and Vegetable Crops*

**ACTIVE INGREDIENTS:**

Chlorpyrifos (O,O diethyl O-13,5,6 trichloro-2 pyridyl phosphorothioate) .....	40.7%
Aromatic petroleum derivative solvent .....	22.8%
<b>INERT INGREDIENTS:</b> .....	36.5%
Contains 4 pounds of chlorpyrifos per gallon	
EPA Reg. No. 464-448	EPA Est. 464 MI 1

**PRECAUCION AL USUARIO:** Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.  
**TRANSLATION: (TO THE USER)** If you cannot read English, do not use this product until the label has been fully explained to you!

KEEP OUT OF REACH OF CHILDREN

**WARNING**

**MAY BE FATAL IF SWALLOWED • MAY BE ABSORBED THROUGH SKIN  
MAY BE INJURIOUS TO EYES AND SKIN  
SEE BACK PANEL FOR ADDITIONAL PRECAUTIONS**

In case of an emergency endangering life or property involving this product, call collect **517-636-4400**

**AGRICULTURAL CHEMICAL**  
Do Not Ship or Store with Food, Feeds, Drugs or Clothing

**18.93 L / 5 gal**

86-1417 PRINTED IN U.S.A. IN MAY, 1983.  
REPLACES SPECIMEN LABEL 86-1417 PRINTED IN APRIL, 1983.  
DISCARD PREVIOUS SPECIMEN LABELS.  
REVISIONS INCLUDE: (1) CONTROL OF BEET ARMYWORMS AND CUTWORMS IN SUGAR BEETS.

**THE**  
MIDLAND  
CORAL

3

**CONTENTS PAGE NO.**

**Hazards**  
 Human and Domestic Animal ..... 5  
 Physical and Chemical ..... 5  
 Environmental ..... 6

**Directions for Use (Federal approved)**  
 General Information ..... 6  
 Mixing Instructions ..... 6-7  
 Use and Dosage Recommendations  
   Alfalfa ..... 7-8  
   Citrus Fruits ..... 8-10  
   ✓ Corn ..... 10-17  
   Cotton ..... 17-20  
   Grain Sorghum ..... 21  
   Grapes ..... 21  
   Mint ..... 21-22  
   Nectarines ..... 22  
   Onions ..... 22  
   Peaches ..... 22  
   ✓ Peanuts ..... 23  
   Soybeans ..... 23-24  
   Strawberries ..... 24-25  
   Sunflowers ..... 25-26  
   ✓ Sugarbeets ..... 26  
   Sweet Potatoes ..... 26-27  
   Tree Fruits  
     (Dormant/Delayed Dormant) ..... 27  
   Vegetables ..... 28-29

**Storage and Disposal** ..... 30  
**Special Local Needs** ..... 31

Page 4

Dosage LORSBAN 4E for Spray Coverage (Pints/ al. water)	Dilute or Concentrate (Pints/Acre)	Gallons of Spray Per Acre For Dilute Applications <sup>1</sup>	Remarks
1	2 to 7	200 to 700	Use directions apply in all states except California (See footnotes 1 & 2).

**HAZARDS  
KEEP OUT OF REACH OF CHILDREN  
WARNING**

**PRECAUTIONARY STATEMENTS  
Hazards to Humans and  
Domestic Animals**

**MAY BE FATAL IF SWALLOWED • MAY BE  
ABSORBED THROUGH SKIN • MAY BE  
INJURIOUS TO EYES AND SKIN  
Do Not Take Internally • Do Not Get In  
Eyes, on Skin or on Clothing • Avoid  
Breathing Vapors and Spray Mist • Wash  
Thoroughly After Handling**

**Statements of Practical Treatment**  
**If Swallowed:** Do not induce vomiting. Contains  
aromatic petroleum solvent. Call a physician  
immediately.

**If On Skin:** In case of contact, remove contami-  
nated clothing and immediately flush skin with  
soap and water. Wash contaminated clothing  
before reuse.

**If in Eyes:** Flush eyes with plenty of water for 15  
minutes. Call a physician.

**NOTE TO PHYSICIAN:** Chlorpyrifos is a cholines-  
terase inhibitor. Treat symptomatically. Atropine  
only by injection is an antidote.

**Physical and Chemical Hazards  
COMBUSTIBLE**

**Do Not Use or Store Near Heat or Open  
Flame • Do Not Cut or Weld Container**

Page 5

<sup>1</sup> In California apply as Thorough Distribution  
Coverage (TDC) using ½ to 1 pint of LORSBAN 4E  
in 100 gallons of water and 6 to 12 pints LORSBAN  
4E per acre in dilute or concentrate sprays. For  
dilute sprays, apply 600 to 1200 gallons of spray  
per acre.

<sup>2</sup> In California apply as Thorough Coverage (TC)  
using same dosages as in <sup>1</sup>. For dilute sprays  
apply 1200 to 2400 gallons of spray per acre but  
do not apply more than 12 pints of LORSBAN 4E  
per acre.

<sup>3</sup> Gallonage per acre based on average size of  
mature trees. Adjust to tree size per acre.

For dilute applications, use the specified dosage  
in 100 gallons of water for the spray type indicated  
for pest to be controlled. For concentrate sprays,  
use the same amount of LORSBAN 4E per acre  
that would be needed for application as a diluter  
spray, using appropriate application / coverage  
procedures. Treat when insects become a prob-  
lem or in accordance with the local spray sched-  
ule recommended by your State Extension Service  
Specialist. Do not apply during bloom period or  
when temperature exceeds 95°F. Do not tank mix  
LORSBAN 4E with DUSTAN® 50W miticide in low

more than 2 applica-  
ore than 15 pints of  
er acre per fruit year.  
ation within 30 days of  
t treat within 21 days  
tions up to 7 pints of  
r within 35 days for  
pints per acre. Do not  
involving contact with  
eatment. Do not allow  
d areas.

**VEET CORN:** For use to  
worms, chinch bugs,  
flea beetle larvae and  
grubs, western bean  
omphylans and lesser

**ASPARAGUS:** Use LORSBAN 4E to control cutworms by  
application at the rate of 2 pints per acre. Mix  
the specified dosage in sufficient water to ensure  
thorough coverage of treated plants and apply as  
a broadcast spray using suitable power-operated  
ground spray equipment. It is preferable to apply  
LORSBAN 4E when the soil is moist and worms are  
active on or near the soil surface.

**Restrictions:** Do not make more than one  
application per season or apply within one day  
of harvest. Based on available residue data,  
the use of LORSBAN 4E on asparagus is limited  
to the Mid-west and Pacific Northwest.

4

**READ ENTIRE LABEL BEFORE  
USING THIS PRODUCT**

**INFORMACION AL USUARIO:** Si usted no lee  
o use este producto hasta que  
esta le haya sido explicada  
ante.

**ATTENTION: (TO THE USER:** If you can-  
English, do not use this product  
label has been fully explained to

**INGREDIENTS:**  
 Chlorpyrifos (O,O-diethyl O-  
3-trichloro-2-pyridyl)  
 phosphorothioate] ..... 40.7%  
 Inert petroleum derivative  
 ..... 22.8%  
**INGREDIENTS** ..... 36.5%  
 4 pounds of chlorpyrifos per

**In case of an emergency endangering  
or property involving this  
product, call collect  
517-636-4400**

**CULTURAL CHEMICAL  
Ship or Store with Food, Feeds,  
Drugs or Clothing**

Do not use on turf or for structural pest control. Do  
not mix this product into other end use

Required dosage with enough water to  
ensure thorough coverage of crop foliage and  
ground aerial (fixed-wing or helicopter) or  
ground sprayer ground spray equipment. For  
ground application use at least 2 gallons of water  
per acre. Treat when field counts or crop injury  
that damaging pest populations are  
high or present; however, do not apply  
more than once per crop cutting.

LORSBAN 4E insecticide should not be tank-mixed  
with herbicides, surfactants, or fertilizer formula-  
tions prior use has shown the combination  
is under your current conditions of use.  
If toxic symptoms may be observed on  
crops under rapidly growing alfalfa when  
using LORSBAN 4E. Alfalfa will outgrow the  
insecticide and no yield loss should be expected.

LORSBAN 4E is highly toxic to bees exposed to  
spray treatment on alfalfa. Do not apply if nearby  
hives are clustered outside of hives and bees are  
active. Protective information may be obtained  
from Agricultural Extension Service.

**Restrictions:** Do not cut or graze treated alfalfa  
within 14 days after application of 1 pint of  
LORSBAN 4E per acre nor within 21 days after  
application of rates above 1 pint per acre. Do not  
apply more than 4 applications per year.

**APPLICATIONS:** Use LORSBAN 4E insecticide at  
the rate indicated to control the following pests.  
Use lower rates for light infestations and  
higher dosage for heavier infestations.