

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

**HARMFUL BY SWALLOWING, INHALATION OR SKIN CONTACT. Avoid Breathing Spray Mist. Avoid Contact With Skin. Wash Thoroughly After Handling. Change Contaminated Clothing. Do Not Contaminate Food Or Feed Products.**

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. Do not apply directly to water except as specified on this label. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment on 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.

## STATEMENT OF PRACTICAL TREATMENT

**If Swallowed**—Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching the back of throat with finger. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

**If Inhaled**—Remove victim to fresh air. Apply artificial respiration if indicated.

**If On Skin**—Remove contaminated clothing and wash affected areas with soap and water.

**If In Eyes**—Flush eyes with plenty of water. Call a physician if irritation persists.

**Note to Physician:** This product may cause cholinesterase inhibition. Atropine is antidotal. 2-PAM may be effective as an adjunct to atropine.

## PHYSICAL OR 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.

Undiluted spray droplets of MALATHION ULV-81 concentrate insecticide will permanently damage automobile paint unless these specific instructions for ground and aerial application are followed.

## REENTRY STATEMENT

Do not enter treated areas without protective clothing until sprays have dried.

Protective clothing means, at least, a hat or sunshade head covering, a long sleeved shirt and long legged trousers or a overall type garment (all of closely woven fabric) covering the body, including the arms and legs, waist and neck.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unrostered persons.

Written and oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. When oral warnings are given, warnings shall be given in a language customarily understood by workers.

Written and oral warnings must include the following information:

Box:

## CAUTION

(insert area or field description) treated with malathion on (insert date of application.)

In case of accidental exposure: Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to malathion and describe his condition. For further information see the "PRECAUTIONARY STATEMENTS" portion of the pesticide label.

Do not enter treated areas without protective clothing until sprays have dried.

## STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Do not store under conditions which might adversely affect the container or its ability to function properly.

**STORAGE:** Store in safe manner. Store in original container only. Keep container slightly closed when not in use. Reduce stacking height where local conditions can effect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

Do not apply this product through any type of irrigation system.

## NOTICE

Platte warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of the product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Platte. In no case shall Platte be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Platte makes no warranties of merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.



FORMULATED FOR  
**PLATTE CHEMICAL CO.**  
130 SO. MAIN STREET  
FREMONT, NEBRASKA 68603

**Malathion**  
**RQ NA2783**

**ORM-A**

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# MALATHION ULV-91

<b>ACTIVE INGREDIENT:</b>	
Malathion	91.0%
<b>INERT INGREDIENTS</b>	9.0%
<b>TOTAL</b>	<b>100.0%</b>

O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate  
(One gallon contains 9.33 pounds of malathion.)

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**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

## PRECAUCION

**PRECAUCION:** Si usted no lee ingles, no use este producto hasta que le expliquen lo haya sido.  
**PRE-USE USE:** If you cannot read English, do not use this product until the label has been fully explained to you.

REFER TO ATTACHED BOOKLET FOR USE DIRECTIONS  
See Side Panels for Additional Precautionary Statements

**ACCEPTED**

EPA REG. NO. 34704-203

MAR 16 1990

EPA EST. NO. \_\_\_\_\_



**NET CONTENTS**      U.S. GALLONS  
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Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. \_\_\_\_\_

**ULV-91 MALATHION** THE PREMIUM GRADE MALATHION<sup>®</sup> and Registered T.M.'s of American Cyanamid Co.

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**EPA REG. NO. 34704-203**

• **CYTHON** and **"THE PREMIUM GRADE MALATHION"** are  
Registered T.M.'s of American Cyanamid Co.

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\*O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate  
(One gallon contains 9.33 pounds of malathion.)

## PRECAUCION

AL USUARIOS: Si usted no lee ingles, no use este producto hasta que le expliquen la forma de aplicarlo en su idioma.  
(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

Before using, read the directions contained in this leaflet for the proper methods and procedures which must be followed to achieve effective insect control and avoid permanent damage to automobile and other paint finishes.

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### REENTRY STATEMENT

Do not enter treated areas without protective clothing until sprays have dried.

Protective clothing means, at least, a hat or suitable head covering, a long sleeved shirt and long legged trousers or a coverall type garment (all of closely woven fabric covering the body, including the arms and legs), shoes and socks.

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(Insert area or field description) treated with malathion on (insert date of application.)

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Do not apply this product through any type of irrigation system.

### MOSQUITO CONTROL IN POPULATED AND RURAL AREAS IMPORTANT NOTICE

TO BE APPLIED ONLY BY TRAINED PERSONNEL OF PUBLIC HEALTH ORGANIZATIONS, MOSQUITO ABATEMENT DISTRICTS OR PEST CONTROL OPERATORS.

### AERIAL APPLICATION

ADULT MOSQUITO CONTROL OVER CITIES, TOWNS, AND OTHER AREAS WHERE AUTOMOBILES, TRAILERS, TRUCKS AND PLEA-

**SURE BOATS ARE PRESENT:** Apply 2.6 to 3.0 fluid ounces of MALATHION ULV-91 per acre. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

**IMPORTANT:** Undiluted spray droplets of MALATHION ULV-91 will permanently damage vehicle paint finishes unless the aircraft used for the ultra low volume application meets all of the specifications listed below.

#### Fixed Wing Aircraft

1. Aircraft is operated at 150 mph or more.
2. There are no leaks in the ultra low volume spray system.
3. Nozzles are placed on the boom at a 45° angle down and into the wind.
4. Diaphragm check valves are used on all nozzles to insure positive cut-off of the spray.
5. Dosage of MALATHION ULV-91 does not exceed 3 fluid ounces per acre.
6. The spray system produces droplets of this product in the 50 to 80 mass median diameter (MMD) micron range, with no more than 10% of the droplets exceeding 100 microns, as determined by readings made from microscope slides coated with DRI-FILM® or TEFLON®.

#### Helicopter

##### Equipment specifications

1. Rotary nozzle equivalent to Ecolomat Spray Head Assembly Model No. 360 equipped with:
  - a. a direct reading RPM tachometer or low RPM signal light readily visible to operator;
  - b. a stainless steel porous metal sleeve, 20 micron pore size dynamically balanced to the nozzle;
  - c. a diaphragm check valve as near to the rotary nozzle as possible to insure positive cut off of the spray;
  - d. nozzle on-off switch separate from main switch and pump switch.
2. Minimum no-load nozzle speed of 10,500 RPM.
3. A continuous nonpulsating metered flow must be maintained by a variable speed metering pump equipped with:
  - a. a positive cut off valve between tank and pump;
  - b. a flow gauge or tachometer visible to operator;
  - c. a pump on-off switch separate from main switch and nozzle switch.
4. Maximum flow rate of 6.5 gallon per minute per nozzle.

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6. Rotary nozzle must be mounted behind and below the boom with the sleeve directed toward the rear of the aircraft and parallel to the ground during flight. Nozzle must be positioned to minimize air turbulence and the collection of MALATHION ULV-91 droplets on mounting brackets, feed lines, fittings, etc., or any part of the aircraft.

\*Trademark of General Electric Company  
 • Registered Trademark of E.I. duPont de Nemours & Co., Inc.

**Operating Procedures**

1. MALATHION ULV-91 must be prefiltered through a 10 micron filter prior to transfer into helicopter tank. A 80 mesh stainless steel line strainer must be installed in the pump feed line.
2. Entire system, including tank, pump, nozzle and feed lines, to be used only for application of MALATHION ULV-91.
3. Entire system must be inspected daily to insure that there are no leaks.
4. Sleeve must be removed and cleaned immediately after each use by washing with hot water and blowing dry from outside in with clean air.
5. Rotating nozzle must be turned on and operating before turning on pump. For shut off, pump must be shut off and lines cleared prior to stopping nozzle rotation.
6. Dosage of MALATHION ULV-91 does not exceed 3 fluid ounces per acre.
7. The spray system must produce droplets of MALATHION ULV-91 with a mass median diameter (MMD) of less than 50 microns, with no more than 2.5% of the droplets exceeding 100 microns, as determined by readings made from microscope slides coated with DRI-FILM or TEFLON.

**GROUND APPLICATION**

**Thermal Aerosols or Fogs**

For control of adult mosquitoes with thermal aerosols or fogs, apply MALATHION ULV-91 at the rate of 6-8 oz. actual/gallon (3.9-5.2 gallons MALATHION ULV-91 in 100 gallons finished solution\*) by ground equipment delivering 40 gallons per hour at a vehicle speed of 5 miles per hour to treat a swath width of 300-400 feet.

\*There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents. These differences may cause sludge and/or affect the solubility of the MALATHION ULV-91. For more complete details on tests for sludge formation and solubility in thermal fog solutions, write Platte Chemical Company, P.O. Box 667,

Greeley, CO 80632  
 Attn: Labeling Dept.

**Nonthermal Aerosols**

Over a 300-foot swath can be produced using the non-thermal ultra low volume aerosol method with MALATHION ULV-91. Use the following rates at the indicated vehicle speeds:

Vehicle Speed Miles per Hour	Flow Rate of MALATHION Fluid Ounces per Minute	Maximum Flow Rate per Hour
5	1.9 to 2.1 fluid ounces	1 gallon
10	2.8 to 4.3 fluid ounces	2 gallons
15	3.9 to 6.45 fluid ounces	3 gallons
20	4.9 to 8.6 fluid ounces	4 gallons

For control of adult stable fly in populated and rural areas with nonthermal aerosols of MALATHION ULV-91 using the ultra low volume method, use the following flow rates at the indicated vehicle speeds:

Vehicle Speed Miles per Hour	Flow Rate of MALATHION Fluid Ounces per Minute	Maximum Flow Rate per Hour
5	2.1 fluid ounces	1 gallon
10	4.3 fluid ounces	2 gallons

**DROPLET SIZE**

1. The Mass Median Diameter (MMD) of the droplets should not exceed 17 microns. The MMD is the drop diameter which divides the spray volume into two equal parts; i.e., 50% of the volume is in the drop sizes below the MMD and 50% is above the MMD.
2. Spray droplets should not exceed 32 microns in size. Three percent of the spray droplets (6 droplets out of 200) can exceed 32 microns providing the MMD does not exceed 17 microns and no droplets exceed a maximum of 48 microns. Larger droplets, when transported by natural air currents, impinge more readily on objects in their pathway and will permanently damage automobile-type paints.
3. More than one-half of the total spray mass must consist of droplets in the 6 to 18 micron range to achieve adequate dispersal of insecticide over a 300-foot swath.
4. A minimum of two-thirds, preferably four-fifths of the total spray mass must consist of droplets not exceeding 24 microns in range.

**OPERATING EQUIPMENT**

Each Nonthermal Aerosol Generator used for dispersal of MALATHION ULV-91 to control adult mosquitoes must have minimum capability of producing the droplet spectrum described under DROPLET

SIZE. The initial determination of droplet size is made after the unit is installed in a vehicle and prior to its use in mosquito control operations. The unit should be rechecked as frequently as necessary to insure that proper droplet size is maintained for each operation. Determination of droplet size every two months is usually sufficient if the unit has been maintained in good operating condition. Equipment manufacturer's instructions setting forth cleaning and maintenance of the unit must be followed. The unit must be inspected before each operation to correct any leaks or obstructions in the spray system; to detect whether the nozzle, hoses, or other parts are worn and need replacement; to insure that the flow meter is properly calibrated; and to determine that the pressure recommended by the manufacturer is being maintained.

Flow Rate—must be regulated by accurate flow meter.

- not greater than 1 gallon per hour at 5 mph,
- 2 gallons per hour at 10 mph, 3 gallons per hour at 15 mph
- or 4 gallons per hour at 20 mph.

Nozzle Direction—rear of the vehicle.

- upward at an angle of 45° or more.

Vehicle Speed—not greater than 20 miles per hour.

- shut off spray equipment when vehicle is stopped.

**IMPORTANT**—Spray droplets of undiluted MALATHION ULV-91 will permanently damage automobile paint unless all the conditions described and recommended in this leaflet are met.

**Directions for Determining the droplet size of MALATHION ULV-91 nonthermal aerosols**

**1. Preparation of Slides with DRI-FILM**

MALATHION ULV-91 droplet size are determined by depositing a sample of the aerosol on a coated glass slide and measuring the droplets under a high-powered microscope. Ordinary 3" x 1" glass slides must be coated with silicone (General Electric SC-87 DRI-FILM) prior to sampling to prevent excessive spreading or coalescence of the droplets. The slides are dipped into a 10 percent solution of DRI-FILM in toluene, drained and dried at about 200° F. for 30 minutes, after which they are dipped in acetone, allowed to dry and stored in tight slide box. Coating solution must be freshly prepared. Do not store coating solution because it will deteriorate. Slides are lightly polished with a soft tissue before using to remove any foreign particles.

**2. Deposition of MALATHION ULV-91 Droplets on Slides**

Droplets should be collected under ideal operating conditions to insure representative sampling of droplets in the aerosol. A sample

of the MALATHION ULV-91 aerosol is deposited on a slide by waving the slide as rapidly as possible perpendicular through the aerosol cloud at a distance of 25 feet from the point of discharge. The slide velocity may be increased by attaching it to a 3 or 4 foot stick by means of a spring paper clip. At least two slides should be exposed to insure an adequate sample. Store slides in a tight slide box for transfer to a location where measurements can be made. Avoid excessive heat during transit and store in a cool place until measurements can be made.

Although label specifications require the aerosol nozzle to be angled upward at 45° or more during operation, it is more convenient to position the nozzle parallel to the ground for droplet sampling. If this is not possible it will be necessary to be positioned at a sufficient height to obtain a representative sample of the aerosol.

**3. Determination of MALATHION ULV-91 Droplet Size**

A microscope with mechanical stage and an eyepiece micrometer are used to determine the size of the individual aerosol droplets. Prior to taking measurements, the divisions of the eyepiece micrometer must be calibrated into microns by means of a stage micrometer. In the example represented in Table 1, droplets were measured at 400x magnification. At that magnification each division of the eyepiece was calibrated to equal 3.5 microns.

At least 200 droplets should be measured. Usually this is easily accomplished on one slide. An accurate method is to measure all droplets that pass through the micrometer scale as the slide is moved from one edge to the other by using the mechanical stage. Measurements should not be taken along the margins of the slide. It is more convenient to measure in terms of the divisions of the eyepiece micrometer and then convert these divisions into microns.

The measurements converted into microns must then be corrected for the amount of spread that occurred on the slide. The spread factor for silicon-coated slides is 0.5. Therefore, in Table 1 each division of the eyepiece actually equals 1.75 microns (3.5 microns times the 0.5 spread factor.)

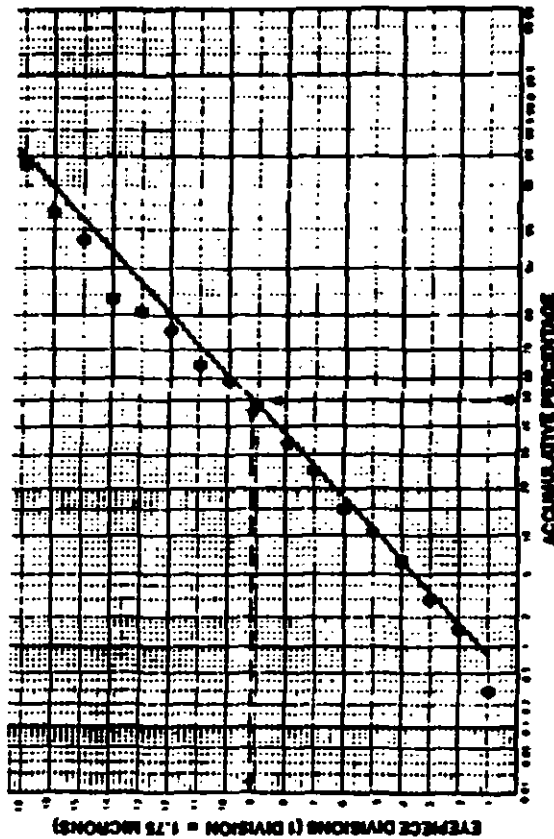
The spread factor for TEFLON-coated slides is 0.65. The following procedure is given for silicon-coated slides, would be the same for TEFLON-coated slides once the value for each eyepiece division has been determined.

The measurements are tabulated and processed as in Table 1. The Maximum Diameter is calculated by converting the diameter

of the largest droplet measured into microns. In Table 1, the largest droplet measured had a diameter of 19 eyepiece divisions. Therefore, the Maximum Diameter is 33.3 microns ( $19 \times 1.75$  equals 33.3).

To determine the Mass Median Diameter (MMD), the accumulative percentages from the last column in Table 1 are plotted against the eyepiece divisions (D) on semi-logarithmic paper as in Figure 1. Directly across from the 50 percent point on the line is the median droplet size in eyepiece divisions which must be converted to microns. In Figure 1, 9.2 eyepiece divisions times the conversion factor of 1.75 equals a Mass Median Diameter of 16.1 microns.

Figure 1  
Percentage of the total volume of aerosol sample below each stated droplet size (from Table 1). The Mass Median Diameter is determined from the 50 percent point on the line. The Mass Median Diameter (MMD) = 9.2 divisions times 1.75 = 16.1 microns.



EYEPIECE DIVISIONS (1 DIVISION = 1.75 MICRONS)

Table 1  
Representative Count of MALATHION ULV-91 Aerosol Droplets Impinged on Microscope Slides Coated with DRI-FILM

Eyepiece Divisions (D)	Number of Droplets (N)	D x N	% Of Total $\Sigma(D \times N)$	Accumulative Percentages
1	5	5	0.31	0.31
2	10	20	1.22	1.53
3	9	27	1.85	3.38
4	12	48	2.93	6.31
5	15	75	4.58	10.89
6	12	72	4.40	15.29
7	25	175	10.70	25.99
8	14	112	6.86	32.84
9	28	252	15.40	48.24
10	19	190	11.81	60.05
11	14	154	9.41	69.46
12	10	120	7.33	76.79
13	8	78	4.77	81.56
14	4	56	3.42	84.98
15	11	165	10.09	95.07
16	2	32	1.98	97.05
18	2	36	2.20	99.25
19	1	19	1.16	99.99
Total	199	1838		

\*Measurements were taken at 400 X magnification. Each eyepiece division equals 1.75 microns (3.5 microns times the 0.5 spread factor).

AGRICULTURAL USES

OPERATING INSTRUCTIONS

MALATHION ULV-91 is used undiluted in specially designed aircraft or ground equipment capable of applying ultra low volumes for control of the insects indicated. Aerial applications are most effective when made at a boom height of 5 feet and a swath width of 50 feet. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

Mist blowers and boom sprayers utilizing a controlled air flow to facilitate particle size and spray deposition may be used at a vehicle speed of 4 to 10 mph.

Mist blowers with a pump capable of producing up to 40 psi and blower speeds of 2800 rpm are satisfactory. Use flat fan nozzles, 8001 to 8002, place 30° into air blast or rotary atomizers into the air blast that produce an efficient spray particle with a mass median diameter of 40 to 100 microns. Swath widths should not exceed 30 feet. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

Boom sprayers with a filtered rotary air compressor, either PTO or gas engine driven or an air pump capable of producing at least 12 psi are satisfactory. Use air pressure on chemical tanks and an accurate metering valve to assure a calibrated flow of the pesticide. Air should be regulated with relief valve and gauge for proper air and liquid mixture. Pneumatic-type spray nozzles, as suggested by equipment manufacturer, should be used for spray particles with mass median diameter of 30 to 100 microns. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

Repeat applications should be made as necessary unless otherwise specified.

IMPORTANT—Undiluted spray droplets of MALATHION ULV-91 will permanently damage automobile paint. If accidental exposure does occur, the vehicle should be washed immediately. Consult your state experiment station or state extension service for proper timing of sprays. This product is highly toxic to bees exposed to direct treatment or residues on crops. Protective information may be obtained from your Cooperative Agricultural Extension Service.

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	Pests Controlled	per Acre	Days to Harvest or Grazing and Comments
Ailaha	Ailaha Caterpillar	8	0 day. Apply when larvae are small.
	Western Yellow Striped Armyworm	12	5 days. Apply when larvae are large or when foliage is dense.
	Ailaha Weevil Larvae	16	5 days. Apply when day temperatures are expected to exceed 85°F. and when 50-75% of leaves show feeding damage.
	Beet Armyworm	8	0 day. Apply when larvae are small.
		16	5 days. Apply when larvae are large or when foliage is dense.
	Grasshoppers	8	0 day.
Do not apply to ailaha in bloom. Do not apply to seed ailaha.			
Barley	Grasshoppers	8	7 days.
	Cereal Leaf Beetle	4-8	7 days.
Beans (lima, green, snap, Navy, red kidney, wax, dry, blackeye)	Mexican Bean Beetle Leafhoppers Green Cloverworm Japanese Beetle Lygus Bug	8	1 day.
Blueberries	Blueberry Maggot	10	0 day.
Cherries	Cherry Fruit Fly	12-16	1 day. Apply by aircraft only. Use higher rate when foliage is heavy or infestation is severe. Make first application as soon as flies appear.
Clover, Pasture and Range Grass, Grass Hay	Blackgrass Bugs Grasshoppers	8-12	0 day. Do not apply to clover in bloom.
Corn	Adult Corn Rootworm	4	5 days.
	Grasshoppers	8	
	Cereal Leaf Beetle	4-8	
Cotton?	Aphids (Green Peach and Cotton)	14-16	
	Boll Weevil	8-12	Early to midseason.
		12-16	Late season.
	Grasshoppers	8	
	Leafhoppers	4-8	
	Lygus Bugs including Tarnished Plant Bugs	8-12	Moderate Populations.
		16	Very heavy or migrating populations.
	Thrips	4-8	

†For use on cotton:

MALATHION ULV-91 can be used alone as a ULV concentrate spray or diluted in once-refined cottonseed or vegetable oil sufficient to make at least one quart of finished spray per acre.

Crop	Pests Controlled	Fluid Ounces per Acre	Days to Harvest or Grazing and Comments
Flax	Grasshoppers	8	Apply once per season. Do not apply within 45 days of harvest. Do not graze or feed forage.
Grain Sorghum	Grasshoppers	8	7 days.
	Sorghum Midge	8-12	7 days. Apply during the bloom stage.
Grasses	Blackgrass Bugs Grasshoppers	8-12	0 day.
	Cereal Leaf Beetle	4-8	
Oats	Cereal Leaf Beetle	4-8	7 days.
	Grasshoppers	8	
Peas (Northwest)	Pea Weevil	8	14 days.
Rice	Grasshoppers	8	7 days.
Rice-Grain Form (Louisiana, Texas)	Rice Stink Bug	8	7 days. Apply by aircraft only. Apply during early milk and dough stage of growing rice.
Rye	Grasshoppers	8	7 days.
Safflower	Grasshoppers Lygus Bugs	8	3 days of harvesting seeds.
Soybeans	Mexican Bean Beetle Grasshoppers Japanese Beetle Green Cloverworm	8	7 days.
Sugar Beets	Grasshoppers	8	0 day.
	Sugar Beet Root Maggot Adults		7 days. If tops are to be used for feed or feed.
Wheat	Cereal Leaf Beetle	4-8	7 days.
	Grasshoppers	8	
Nonagricultural Lands (Waste lands, roadsides)	Beet Leafhopper (on wild host plants)	8	0 day.
	Blackgrass Bugs Grasshoppers	8-12	0 day.
Beef Cattle-Feed Lots and Holding Pens	Adult Flies and Mosquitoes	8-8	0 day.

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**USUAL MANUFACTURE USES**

Azolla, Clover, Pasture and Range Grass, Grass and Grass Hay, Grain Crops, Beans, Peas, Tomatoes and Nonagricultural Lands (pasture); Adult mosquitoes and flies—Apply MALATHION ULV-91 at the rate of 2 to 4 fluid ounces for control of adult mosquitoes and at 8 to 8 fluid ounces per acre for control of adult flies and mosquitoes. Repeat applications as necessary. On azolla, clover, pasture and range grass, grass and grass hay, may be applied on day of harvest or grazing. Do not apply to azolla and clover in bloom. Do not use on seed azolla. On grain crops, make no application within 7 days of harvest or forage use; on corn, within 5 days of harvest or forage; on rice within 7 days of harvest; on beans and tomatoes within 1 day of harvest.

**FOREST INSECTS**

Apply with aircraft equipped for ultra low volume application. Make application when air is calm and temperature is below 88°F. Do not allow spray to contact ferns, hickory, and maples as injury may result. Do not spray on elms under extreme heat, drought and disease conditions.

Tree	Pest Controlled	Fluid Ounces per acre	Directions
Douglas Fir True Fir Spruce	Spruce Budworm	13	Apply when highest percentage of larvae are in the fifth instar.
Hemlock	Hemlock Looper	8	Apply when most larvae are in the third and fourth instar.
Pines	European Pine Sawfly	10	Apply when larvae are in the first or second instar or before they reach 1/2 inch in length.
	Saratoga Spittlebug	10	Apply when 95% of the population has become adult.
Larch	Larch Casebearer	8	Apply in spring as soon as larvae break hibernation and begin feeding on new foliage.

Undiluted spray droplets of MALATHION ULV-91 concentrate insecticide will permanently damage automobile paint unless these specific instructions for ground and aerial application are followed. See "Important Notice" and "Aerial Application" sections at the beginning of this leaflet.

See for use in accordance with the recommendations and instructions issued by the United States Department of Agriculture for quarantine programs. To be used only by or under the direction of Federal/State personnel for quarantine treatments.

**NOTICE**

Platte warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of the product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Platte. In no case shall Platte be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Platte makes no warranties of merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

FORMULATED FOR  
**PLATTE CHEMICAL CO.**

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