

Reg # 34704-565

PM-14

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

APR 15 1994

J Allen Dunlap III
WILLIAM M. MAHLBURG
AGENT FOR: PLATTE CHEMICAL CO., INC.
BOX 667
Greeley, CO 80632

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

**Subject: Label Amendment Submission of 12/20/93 in Response to PR Notice 93-7
EPA Reg. No. 34704-565
CLEAN CROP MALATHION ULV CONCENTRATE INSECTICIDE**

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

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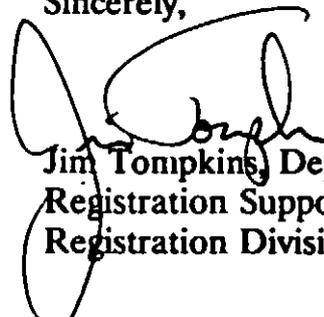
Submit the final printed labeling via the U.S. Postal Service to:

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 Support Branch
Registration Division (7505W)

Attachment

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WILLIAM M. MAHLBURG
34704-565 12/20/93
CLEAN CROP MALATHION ULV CONCEN INSECT
Original Submission

User Safety Recommendations must either be placed in a box or printed on the label in a contrasting color from surrounding text.

One or more of the statements in the Non-Agricultural Use Requirements box is not found on your original label. Delete the crossed-out sentence(s). If you wish to retain the sentence(s) you must submit an amendment request to the Product Manager. If there are no remaining requirements in the box after you delete the sentence(s), delete the entire Non-Agricultural Use Requirements box. Please refer to the instructions starting on page 45 of Supplement Three to PR Notice 93-7 (Main Labeling Guidance).

Delete the crossed-out statements on your proposed label. They are redundant statements or phrases.

BEST AVAILABLE COPY

MALATHION ULV[®]

EPA REG. NO. 34704-565

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 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 nonthermal aerosols

1. Preparation of Slides with DRI-FILM

MALATHION ULV droplet sizes 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 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 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 Droplet Sizes

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 0.69. The following procedure is given for silicone-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 x 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

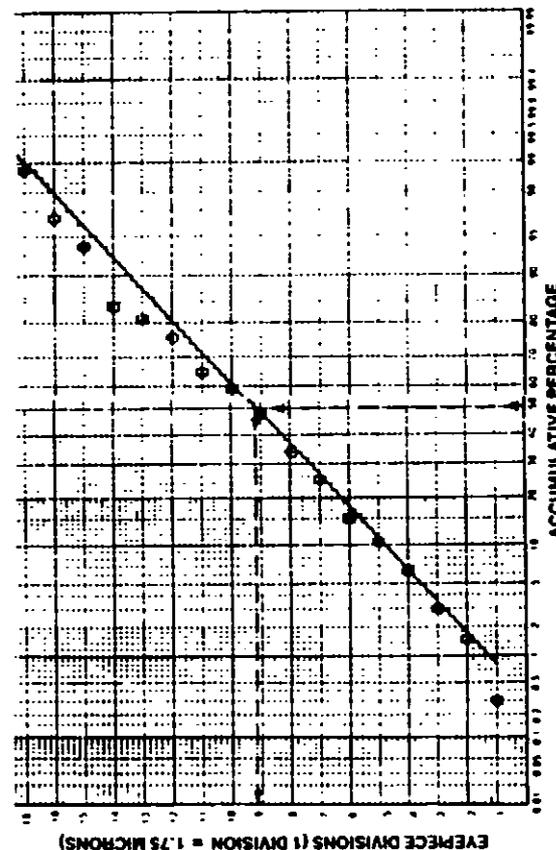
droplet size in eyepiece divisions which must be converted to microns. In Figure 1, 9.2 eyepiece divisions times the conversion factor of 1.75 equals a Mass Median Diameter of 16.1 microns.

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

Eyepiece Divisions (D)*	Number of Droplets (N)	D x N	% Of Total D x N	Accumulative Percentages
1	5	5	0.31	0.31
2	10	20	1.22	1.53
3	9	27	1.65	3.18
4	12	48	2.93	6.11
5	15	75	4.58	10.69
6	12	72	4.40	15.09
7	25	175	10.70	25.79
8	14	112	6.85	32.64
9	28	252	15.40	48.04
10	19	190	11.61	59.65
11	14	154	9.41	65.06
12	10	120	7.33	76.39
13	6	78	4.77	81.16
14	4	56	3.42	84.58
15	11	165	10.09	94.67
16	2	32	1.96	96.63
18	2	36	2.20	98.83
19	1	19	1.16	99.99
Total	199	1636		

*Measurements were taken at 400 X magnification. Each eyepiece division equals 1.75 microns (3.5 microns times the 0.5 spread factor).
 Figure 1

Percentage of the total volume of aerosol samples 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.



AGRICULTURAL USES OPERATING INSTRUCTIONS

MALATHION ULV 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.

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MALATHION ULV[®]
EPA REG. NO. 34704-565

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 Sorghum Midge	8 8-12	7 days. 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 Sugar Beet Root Maggot Adults	8	0 day. 7 days. If tops are to be used for food or feed.
Wheat	Cereal Leaf Beetle	4-8	7 days.
	Grasshoppers	8	
Nonagricultural Lands (Wastelands, 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	6-8	0 day.

OTHER AGRICULTURAL USES

Alfalfa, Clover, Pasture and Range Grass, Grass and Grass Hay, Grain Crops, Beans, Rice, Tomatoes and Nonagricultural Lands (wasteland): Adult mosquitoes and flies—Apply MALATHION ULV at the rate of 2 to 4 fluid ounces for control of adult mosquitoes and at 6 to 8 fluid ounces per acre for control of adult flies and mosquitoes. Repeat applications as necessary. On alfalfa, clover, pasture and range grass, grass and grass hay, may be applied on day of harvest or grazing. Do not apply to alfalfa and clover in bloom. Do not use on seed alfalfa. 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 68°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 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. Also 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 THIS 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. EXCEPT AS EXPRESSLY PROVIDED HEREIN, PLATTE MAKES NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND.

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