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5905-112

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460**

MAR 3 - 1994

**Beverly Neale  
HELENA CHEMICAL CO.  
6075 POPULAR AVE SUITE 500  
MEMPHIS, TN 38119**

**OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES**

**Subject: Label Amendment Submission of 09/01/93 in Response to PR Notice 93-7  
EPA Reg. No. 5905-112  
HELENA BRAND CYTHION 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

20/9

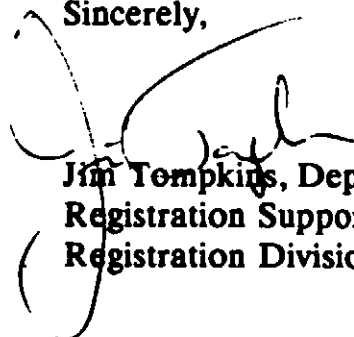
**Submit the final printed labeling via the U.S. Postal Service to:**

**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**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division

Beverley Neale  
HELENA CHEMICAL CO  
6075 POPLAR AVE SUITE 500  
MEMPHIS TN 38119

Comment for: EPA Reg Nr.5907-112  
HELENA BRAND CYTHION ULV CONCENTRATE INSECTICIDE

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

Remove the statement "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." from its current position within  
the Agricultural Use Box and place it above the Agricultural  
Use Box.

The circled statement(s) in the Non-Agricultural Use  
Requirements box contains errors. Use each statement exactly as  
it appears on your original label.

# CYTHION® ULV CONCENTRATE INSECTICIDE

**Active Ingredients:**

Malathion: O,O-diethyl phosphorodithioate of diethyl mercaptosuccinate.... 91.00%

**Inert Ingredients:** ..... 9.00%

**TOTAL** ..... 100.00%

One gallon contains 9.7 pounds of malathion

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See Inside Booklet for Additional Precautions and Directions For Use.

EPA REG. NO. 5905-112  
EPA EST. NO.

NET CONTENTS:

**MANUFACTURED BY  
HELENA CHEMICAL COMPANY  
MEMPHIS, TN 38119**

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

MAR 3 1977

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

5905-112

589

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

**CAUTION**

May be harmful if swallowed. Do not take internally. Avoid contact with eyes, skin and clothing. Avoid breathing vapors, dust, or spray mist. Flush contaminated eyes with plenty of water and get medical attention if irritation persists.

**STATEMENT OF PRACTICAL TREATMENT**

**Organophosphate**

**IF SWALLOWED:** Call a physician or Poison Control Center. Drink one or two glasses of water and induce vomiting by touching the back of throat. Do not induce vomiting or give anything by mouth to an unconscious or convulsing person.

**IF INHALED:** Remove victim to fresh air. Apply artificial respiration if indicated.

**IF IN EYES:** Flush eyes for at least 15 minutes with water. Call physician immediately.

**PERSONAL PROTECTIVE EQUIPMENT**

**Applicators and other handlers must wear:**

- Long-Sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers used 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.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates and aquatic life stages of amphibians. Do not apply directly to water or wetlands (i.e., swamps, bogs, marshes, and potholes). Drift and runoff may be hazardous to aquatic organisms in areas near the application site. 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.

### CHEMIGATION PROHIBITION

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

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. 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) 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 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.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 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
- Waterproof gloves
- Shoes plus socks

#### 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.

Keep children and pets out of treated areas until sprays have dried.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: 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.

CYTHON ULV CONCENTRATE can be effectively applied with conventional aircraft spray equipment by making a few minor modifications in the plumbing and boom assembly.

### **PUMP**

Pumps capable of producing pressures of 40 to 50 psi will be satisfactory. A bleed line at least 3/16 inch in diameter should be installed on the high point of the impeller chamber to release trapped air. This line should bleed back to the top of the tank above the liquid level.

### **BY-PASS**

A by-pass is required from the spray pump outlet to the spray pump inlet. This line must be equal in diameter to the pump outlet and should contain a valve controllable from the cockpit that will permit adjustments of boom pressure in flight. The by-pass commonly used to re-circulate CYTHION ULV CONCENTRATE to the spray tank must be closed to avoid aeration of the insecticide.

### **BOOM AND NOZZLE PLACEMENT**

The distance between the left and right outboard nozzles should be at least 3/4 of the wing span. The total number of nozzles used should be equally spaced across this span if the aircraft is flown at twenty feet or higher. Trailing edge booms are desirable and the nozzles should be placed on boom where pilot can readily see them to check any plugging of nozzles during spray operation. A bleed line at least 3/16 inch in diameter should be attached to the outer end of each boom and routed back to the top of the spray tank but above the liquid level. This line will bleed off pressures and assure sharp cut-off. If a nozzle is placed at each end of boom as many Ag Cat spray booms are assembled, this bleed line is not necessary.

### **NOZZLES**

Use at least 4 to 6 flat fan nozzles, such as Spraying Systems 8001, 80015 or 8002 for small aircraft such as Piper Pawnees and Stearmans. For aircraft operating at 150 mph or faster, use 10 to 14 8010 or 8015 flat fan nozzles. Nozzles should be pointed straight downward on small aircraft and straight back for faster aircraft. Use 100 mesh screens with 8001, 80015 and 8002 nozzles and large-volume 50-mesh screen should be used in spray systems. No screens are required for the 8010 or 8015 nozzles. Diaphragm check valves should be used on each nozzle to insure positive cut-off of spray during flight. Do not use cone nozzles. Rotary atomizers, commonly known as Mini-Spin nozzles, developed by the Plant Pest Control Division, USDA, can be substituted for the flat fan nozzles. Use the same flat fan nozzle tips as mentioned above when using the Mini-Spin nozzle.

### **DIRECTIONS FOR USE**

CYTHION ULV CONCENTRATE is used undiluted for ultra-low volume aerial applications to control adult corn rootworm, beet leafhopper, blueberry-maggot, cereal leaf beetle, cotton boll weevil, flies, grasshoppers and mosquitoes as specified below. Aerial applications should be made at altitudes of 20 to 25 feet.

**NOTE:** CYTHION ULV CONCENTRATE may cause spotting on automobile paint finish if prolonged exposure is permitted. Cars should not be sprayed directly. If accidental exposure does occur, the car should be washed immediately.

**ALFALFA, CLOVER, COTTON, PASTURE, AND RANGE GRASS, GRASS AND GRASS HAY, SAFFLOWER, SOYBEANS, SUGAR BEETS AND NON-AGRICULTURAL LANDS (wastelands, roadsides, soil bank lands):** For control of Grasshoppers, apply 8 fluid ounces of CYTHION ULV CONCENTRATE per acre. 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.

On soybeans, make no application within 7 days of harvest or forage use; on corn, within 5 days of harvest or forage use.

On safflower, make no application within 3 days of harvesting seeds.

On sugar beets, make no application within 7 days if tops are to be used for food.

**BLUEBERRIES (Grown in Michigan and Indiana):**

For control of Blueberry Maggot on blueberries, apply 10 fluid ounces of CYTHION ULV CONCENTRATE per acre. Apply uniformly and repeat applications as necessary. No waiting period is necessary between last application and harvest.

**GRASSES:**

For control of cereal leaf beetle on grasses, apply 8 fluid ounces of CYTHION ULV CONCENTRATE when adult beetles become active in the Spring. Repeat application within 7 to 14 days for control of adults and young larvae. Make no application on cereal crops within 7 days of harvest or forage use. On grasses, may be applied on day of harvest or grazing.

**CORN:**

For control of Adult Corn Rootworm on corn, apply 4 fluid oz. of CYTHION ULV CONCENTRATE per acre. Repeat applications as necessary. Make no application on corn within 5 days of harvest or forage use.

**COTTON:**

For control of boll weevil on cotton, apply 8 to 12 fluid ounces of CYTHION ULV CONCENTRATE per acre. Repeat applications as necessary.

For late season control of bollweevil use 16 fluid ounces per acre.

**ALFALFA, CLOVER, PASTURE AND RANGE GRASS, GRASS AND GRASS HAY, BEANS, RICE, TOMATOES, AND NONAGRICULTURAL LANDS (wastelands, roadsides, soil bank lands):**

Adult mosquitoes and flies - apply CYTHION ULV CONCENTRATE 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. 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.

On corn make no application within 5 days of harvest or forage use; on rice, within 7 days of harvest; on beans and tomatoes, within 1 day of harvest.

**NONAGRICULTURAL LANDS:**

For control of beet leaphopper on wild host plants, use 8 fluid ounces of CYTHION ULV CONCENTRATE per acre.

(CONSULT STATE AGRICULTURAL AUTHORITIES FOR PROPER TIMING OF SPRAYS)  
Before using CYTHION ULV CONCENTRATE for the preparation of malathion insecticides,



manufactures should consult American Cyanamid Company for manufacturing and safe handling instructions.

**CONDITIONS OF SALE - LIMITED WARRANTY  
AND LIMITATIONS OF LIABILITY AND REMEDIES**

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damage and in no event shall damages or any other recovery of any kind against the Company exceed the price of the product which causes the alleged loss, damage, injury, or other claim. The Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income.

The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.