

29 JUN 1990

Valent U.S.A. Corporation  
P.O. Box 8025  
1333 North Carolina Blvd.  
Walnut Creek, CA 94596-8025

Gentlemen

Subject. Dibrom 8 Emulsive  
EPA Reg. No. 59639-15  
Your Amended Application of September 5, 1989

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, is acceptable subject to the comments listed below.

- 1.) Under "GRAPES" retain the text "Ground Use Only"
- 2.) Change the "Preharvest Interval" to "4 days".

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the labeling is enclosed for your records.

Sincerely,



**BEST AVAILABLE COPY**

William H. Miller  
Product Manager (16)  
Insecticide-Rodenticide Branch  
Registration Division (H7504C)

Enclosure: 1) Stamped label  
2) A-79 Enclosure

Helping the World Grow Better®



# ORTHO

## DIBROM® 8 Emulsive

### Naled Insecticide

Active Ingredients	By Wt.
*Naled	58%
Light Aromatic Petroleum Distillate	20%
Inert Ingredients	22%
*1,2-dibromo-2,2-dichloroethyl dimethyl phosphate	

Contains 8 pounds technical naled per gallon equivalent to 7.2 pounds naled.

KEEP OUT OF REACH OF CHILDREN  
DANGER—PELIGRO

DO NOT TAKE INTERNALLY. DO NOT GET IN  
EYES. DO NOT GET ON SKIN.  
SEE SIDE PANEL FOR ADDITIONAL  
PRECAUTIONARY STATEMENTS.

PRECAUCION AL USUARIO: Si usted no lee  
ingles, no use este producto hasta que la  
etiqueta le haya sido explicada ampliamente.

NET CONTENTS 1 GALLON

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### DANGER

**CORROSIVE.** Causes irreversible eye and skin damage. May be fatal if swallowed, inhaled or absorbed through the skin. May cause allergic skin reaction. Do not get in eyes, on skin, or on clothing. When handling this material wear impervious protective clothing including gloves, apron, overshoes, chemical goggles and face shield. Do not breathe vapor or spray mist. Wear a MSHA/NIOSH approved pesticide respirator. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

Keep children and animals off treated areas. (Does not apply to uses for adult mosquito control or fly control or rangeland pests).

#### STATEMENT OF PRACTICAL TREATMENT

If in eyes, hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention immediately.

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration and get medical attention immediately.

If swallowed, drink 1 or 2 glasses of water (or milk) and induce vomiting by touching the back of the throat with finger. If possible contact a physician. Poison Control Center or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest medical emergency treatment center.

If on skin, wash with plenty of soap and water. Get medical attention immediately.

**Note to Physicians: Emergency Information** — Call (415) 223-3737. Naled is a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (Protopam) is also antidotal and may be used in conjunction with atropine, but should not be used alone.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and wildlife. Do not apply directly to water or wetlands (swamps, bogs, marshes and potholes). Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds while bees are actively visiting the treatment area.

#### PHYSICAL OR CHEMICAL HAZARDS

**COMBUSTIBLE. KEEP OUT OF REACH OF CHILDREN. DO NOT USE OR STORE** near heat, open flame, sparks or hot surfaces. **USE ONLY IN WELL VENTILATED AREA.** Keep container closed. Clean up spills immediately. Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85° F.

**DO NOT** heat this container. Replace cap or bung. Emptied container still contains hazardous or explosive vapor or liquid.

#### DIRECTIONS FOR USE

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

#### REENTRY STATEMENT

(Reentry Statement does not apply to uses for adult mosquito or fly control or rangeland pests.)

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Do not enter treated areas prior to 24 hours after application without protective clothing.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

**USE DESIGNATED AMOUNT OF PRODUCT IN THE FOLLOWING GALLONS WATER PER ACRE UNLESS OTHERWISE NOTED:**

**GROUND APPLICATION—Vegetable and Field Crops—30 to 250 gals. Cotton—3 to 20 gals. Deciduous Fruit Crops—60 to 800 gals. Citrus—400 to 3,000 gals. (On Young Fruit Plantings—Use a minimum of 15 gals. water per acre)**

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**AIR APPLICATION—Field Crops—3 to 10 gals.**

A short residual contact insecticide for kill of insect and mite adults and larvae present at the time of application.

Begin application at first sign of insects. Repeat as necessary. Do not apply within 4 days of harvest unless otherwise noted. Do not use with highly alkaline materials such as lime or bordeaux.

Do not spray on Nectarines, Ornamental Cherries, Liquidambar or Chrysanthemums as injury may occur.

**MIXING DIRECTIONS:** Add to spray tank when  $\frac{1}{4}$  to  $\frac{1}{2}$  full with agitator running and maintain agitation until spraying is completed. Make new dilution for each use. Wash metal equipment thoroughly after use to avoid corrosion.

**DIRECTIONS**

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

**ALMONDS:** Peach Twig Borer—Apply only once during the dormant or delayed-dormant period. Apply 1 pt. in combination with  $1\frac{1}{2}$  to 2 gals. supreme type oil or 2 to 3 gals. dormant oil spray per 100 gals. water in high gallonage spray equipment. Thorough coverage is required. Observe oil spray precautions.


**BEANS, LIMA BEANS AND PEAS (DRY AND SUCCULENT FORM):** AHAHA Looper, Aphids, Spider Mites, Lygus, Leafminer, Looper, RHIZIDIDS, Leafhoppers—1 pt. per acre in water to cover. 100 gals. per acre is preferable. For Large Loopers, Stink Bugs— $1\frac{1}{2}$  pts. per acre in water to cover. Aerial Application (California Only)—1 pt. per acre in minimum of 10 gals. of water per acre by air. Begin application at first sign of insects. Make only one application per 7 day period. Do not apply within 1 day of harvest. Do not feed treated vines.

**BROCCOLI, CABBAGE, CAULIFLOWER, BRUSSELS SPROUTS, KALE, COLLARDS:** Imported Cabbageworm, Diamond-Back Caterpillars, Aphids—1 pt. per acre. Looper—2 pts. per acre. Do not apply within 1 day of harvest.

**CELERY:** Aphids, Looper, Armyworms, Salt Marsh Caterpillars, Leafminers—Use ground application only with fine mist spray—1 pt. in 50 to 75 gals. water per acre on plants less than  $\frac{3}{4}$  grown. On larger plants use  $1\frac{1}{2}$  pts. in 100 to 150 gals. water per acre. Do not apply within 1 day of harvest.

**COTTON:** Lygus— $\frac{1}{2}$  to 1 pt. per acre by air or ground. Leaf Perforator, Fleahoppers,

Armyworms, Bollworms, Looper and For Suppression of Mites—1 pt. per acre by air or ground. Apply at 7 to 10 day intervals while pests persist. **FOR HEAVY POPULATION OF LISTED INSECTS:** Use  $\frac{1}{2}$  pt. per acre by air or ground in control programs with other insecticides registered for use on cotton. Do not apply after first bolls open. Do not graze livestock in treated fields.

**GRAPES:** Ground Use—Only: Drosophila, Leafhoppers— $\frac{1}{2}$  to  $\frac{1}{4}$  pt. per 100 gals. water (100 to 130 gals. diluted spray per acre depending on size of vines.) Use only  $\frac{1}{2}$  pt. per 100 gals. water on Muscat varieties. Do not apply within 1 day of harvest. **NOTE:** Do not use after first bloom forms on grapes for fresh fruit and cannery markets as fruit russeting will occur. Do not enter vineyards for 24 hours following treatment. 

**ORANGES, LEMONS, GRAPEFRUIT, TANGERINES:** Aphids, Soft Brown Scale Crawlers, Mites, Citrus Cutworms, Leafroller (Terbix)—1 pt. to 100 gals. water. Thrips (Bloom)— $\frac{1}{2}$  pt. per 100 gals. water. Use up to 7 days of harvest. (Calif. and Ariz.—Do not apply within 1 day of harvest.) Do not enter citrus groves for 24 hours following treatment.

**SAFFLOWER (CALIFORNIA AND ARIZONA ONLY):** Aphids, Thrips, Lygus Bugs— $\frac{1}{4}$  pt. per acre. Apply in 3 to 10 gals. of water by air. Do not apply within 30 days of harvest.

**STRAWBERRIES:** Leafroller, Spider Mites, Aphids, Omnivorous Leafhopper, Spittlebugs, Thrips, Lygus—1 pt. per acre. May be used 1 day before harvest.

**SUGAR BEETS:** Spider Mites, Leafhoppers—1 pt. per acre by air or ground. By Air—Use in 1 to 5 gals. water per acre. Do not apply within 2 days of harvest.

**TOBACCO:** Hornworm—1 pt. to 100 gals. water, using up to 200 gals. diluted spray per acre. Flea Beetles—1 pt. per acre in water to cover. Apply at first sign of insects. Repeat as necessary.

**WALNUTS:** Aphids— $\frac{1}{2}$  to 1 pt. per 100 gals. water. Aerial Application (California Only)—Aphids, Red-Humped Caterpillar—Apply  $1\frac{1}{2}$  to 2 pts. per acre in 10 to 20 gals. of water by air. Do not apply within 10 days of harvest. Do not graze livestock in treated orchards.

**GREENHOUSE, VAPOR TREATMENT OF ROSES, OTHER ORNAMENTAL PLANTS:** Spider Mites, Adult Whiteflies, Aphids, Leafhoppers, Mealybugs—1 li. oz. per 10,000 cu. ft. when plants are dry. Apply undiluted on heat pipes (or in open pans on hot plates). Apply continuously or to intermittent sections of pipe on each side and on 1 or more of the pipes through center of each range depending upon width. Application to cold pipes should be followed by immediately heating pipes to 160° F. in steam heated houses, close vents for at least 1 hour after pipes are hot. With hot water systems, close house for at least 3 hours. Houses may remain closed overnight following treatment. When application is made to hot pipes, wear goggles and approved respirator. Ventilate house before workers re-enter. Wear respirator when entering treated houses to ventilate. Protect hives of bees in houses by covering with plastic or rubber sheet during treatment and until house is ventilated.

**Spider Mites (Resistant and Non-resistant):** Make 3 to 4 treatments at 3 or 4 day intervals. Repeat as necessary. **Adult Whiteflies:** Make 2 applications at 7 day intervals. Repeat as necessary. **Aphids:** Apply when aphids appear. Repeat as necessary.

**NOTE:** Avoid overtreatment and direct application to plants as injury may result. White Butterfly and Golden Rapture Roses, Pink Champagne Chrysanthemums, Green Wandering Jew, Poinsettias and Dutchman's Pipe may be injured by DIBROM vapor.

**FOREST AND SHADE TREES: CONIFERS (Arbutus, Douglas Fir, Fir, Hemlock, Juniper, Pine, Spruce):** Suppression of Two-Spot and Red Spider Mites, Aphids, Spittlebugs, Zimmerman Moths, Juniper Webworms, Tussock Moths, Spruce Budworms, Adult Sierra Fir and Western Hemlock Bark Beetles. **BROADLEAF TREES (Ash, Birch, Black Walnut, Box Elder, Dogwood, Elm, Evergreen Pear, Flowering Plum and Quince, Locust, Magnolia, Maple, Oak, Sycamore, Willow):** Suppression of Two-Spot and Red Spider Mites, Aphids, Leafminers, Thrips, Elm Leaf Beetles, California Oakworms (California only), Spring and Fall Cankerworms, Fall Webworm, Oak Webworm, and Tussock Moths—1 pt. in 100 gals. water. Use when infestation is evident, repeat as necessary.

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Cell Piles and Refuse Areas, Older Mills—Use 2 oz. WPZ 1/2 gal. water as spray (and gals.) as a coarse spray to walls, floors, doorways, windows, refuse and catched where insects congregate. Apply every 5 to 7 days as necessary. Do not apply to cell fruit or refuse piles to be fed to livestock. Avoid contamination of foods, feedings and food processing machinery. Do not apply when plants are in effluence or when feeds are present or exposed. Do not spray surfaces which will come into contact with foods. Cover food containers during spraying.

**GNAT, STABLE FLY (Dog Fly), AND HOUSE FLY CONTROL—RESIDENTIAL AREAS, CROPS LISTED ON LABEL, SWAMPS, WOODLAND:** Consult your State Fish and Game Agency before applying this product. It is not necessary to avoid farm buildings. Make applications during peak of infestation and repeat as necessary. See crop recommendations for use limitations near harvest. This rate of application will kill shrimp. Do not apply to tidal or marsh waters which are important shrimp producing areas. **AIRCRAFT:** East—Apply 0.8 to 4 fl. oz. per acre diluted with water. Apply 2 to 8 qts. of diluted spray per acre. West—Apply 1.6 to 4 fl. oz. per acre diluted with water. Apply 2 to 8 qts. of diluted spray per acre. **MIST OR COLD FOG:** Use 3 to 5 qts. per 100 gals. water. Calibrate equipment (rate of travel and output) to apply 0.1 to 0.25 lb. technical naled per acre.

**ADULT MOSQUITO CONTROL—RESIDENTIAL AREAS, CROPS LISTED ON LABEL, SWAMPS, WOODLAND AND LIVESTOCK PASTURES INCLUDING DAIRY CATTLE:** Consult your State Fish and Game Agency before applying this product. Make applications during peak of infestation and repeat as necessary. See crop recommendations for use limitations near harvest. Treat shrubbery and vegetation where mosquitoes may rest. Shrubby and vegetation around stagnant pools, marshy areas, ponds and shore lines may be treated. Direct application to water is prohibited. This rate of application will kill shrimp. Do not apply to tidal or marsh waters which are important shrimp producing areas. **AIRCRAFT:** East—Apply 0.8 to 1.6 fl. oz. per acre diluted with water. Apply 2 to 8 qts. of diluted spray per acre. West—Apply 1.6 fl. oz. per acre diluted with water. Apply 2 to 8 qts. of diluted spray per acre. **MIST OR COLD FOG:** Use 3 to 5 qts. per 100 gals. water. Calibrate equipment (rate of travel and output) to apply 0.1 lb. technical naled per acre. Do not make more than one application every 10 days to pastures or other areas where insects are being controlled.

**REDUCTION OF LIVESTOCK PESTS—Gnat, Stable Fly (Dog Fly), Housefly, Mosquito; Horn Fly (Central and North Central U.S.) IN CORRALS, HOLDING PENS, FEEDLOTS AND RANGELAND CONTAINING DAIRY AND BEEF CATTLE; GOATS, SHEEP AND HORSES:** **AERIAL APPLICATION:** Apply 4 fl. oz. diluted with 8 fl. oz. of water (total of 12 fl. oz.) per acre (0.25 lb. technical naled per acre). **GROUND APPLICATION:** Use 5 qts. per 100 gals. water. Apply with a mist blower or similar equipment as a spray. Calibrate equipment (rate of travel and output) to apply 0.25 lb. technical naled per acre (approximately 5 gals. of diluted spray).

**CLOVER MITES, ROACHES, EARWIGS AND LEAFHOPPERS—Outside Driveways and In Lawns:** Use 1 fl. oz. in 3 gals. water. Apply to turf and to soil surfaces around flowers, shrubs, and trees for general pest cleanup.

**GRASSHOPPERS, RANGE CATERpillars:** Rangeland—1/2 to 3/4 pt. per acre by air or ground. Young Grasshoppers—1/2 pt. per acre by air or ground. Armyworms—1 pt. per acre by air or ground. By Air—Use in 1 to 5 gals. water per acre. Apply when hoppers hatch is completed. Repeat as necessary. Animals may be present during treatment. Do not graze lactating dairy animals on treated areas.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

**CONDITIONS OF SALE:** 1. Chevron Chemical Company (Chevron) warrants that this material conforms to the chemical description on the label and is reasonably fit for use as directed hereon. Chevron neither makes, nor authorizes any agent or representative to make, any other warranty of FITNESS or of MERCHANTABILITY, guarantee or representation, express or implied, concerning this material.

2. Critical and unforeseeable factors beyond Chevron's control prevent it from eliminating all risks in connection with the use of chemicals. Such risks include, but are not limited to, damage to plants and crops to which the material is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the uses stated hereon and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Chevron under 1 above) resulting from handling, storage, and use of this material.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

JUN 29 1990

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

59439-15

Chevron Chemical Company © 1988

Ortho Agricultural Chemicals Division  
San Francisco CA 94120-7144  
Product 2738 Made in U.S.A.  
R Form 9219-U

EPA Reg. No. 239-1281-AA

## STORAGE AND DISPOSAL

### PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

Open dumping is prohibited.

### STORAGE

Store in cool, dry place.

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Not for use or storage in or around the home.

Do not store diluted spray.

For help with any spill, leak, fire or exposure involving this material, call day or night (415) 233-3737.

### PESTICIDE DISPOSAL

This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL

Triple rinse (or equivalent). Do not reuse container. Dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

BEST AVAILABLE COPY

DIBROM 2 Emulsive  
EPA Reg. No. 239-1281  
Submitted : February 8, 1989

Copy A

(By Ground)

Copy B

Airblast Application (California Only): Prebloom - Overwintering Leafhoppers, Thrips; Postbloom - Drosophila, Leafhoppers - 1 pt. in a minimum of 20 gals. water per acre. Do not use on Italia varieties as fruit injury may occur. Do not apply within 1 day of harvest. Do not enter vineyards for 24 hours following treatment.

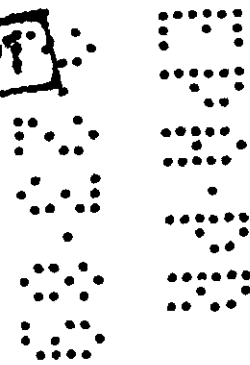
ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

JUN 29 1990

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

59639-15

BEST AVAILABLE COPY



# DIBROM<sup>®</sup>

## 8 Emulsive

(Naled Insecticide)

NOT REVIEWED

In Accordance with PR Notice 82-2.  
Based on Draft Labeling Dated 6/29/70

Active Ingredient  
\*Naled

Inert Ingredients

Light Aromatic Petroleum, Distillate 20%

\*1,2-dibromo-2,2-dichloroethyl dimethyl phosphate

Contains 8 pounds technical naled per gallon equivalent to 7.2 pounds naled

DIBROM<sup>®</sup> — Reg. TM of Chevron Chemical Company for naled insecticide

KEEP OUT OF REACH OF CHILDREN

BEST AVAILABLE COPY

DANGER—PELIGRO

DO NOT TAKE INTERNALLY. DO NOT GET IN EYES. DO NOT GET ON SKIN.

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

##### DANGER

**CORROSIVE** Causes irreversible eye and skin damage. May be fatal if swallowed, inhaled or absorbed through the skin. May cause allergic skin reaction. Do not get in eyes, on skin, or on clothing. When handling this material wear impervious protective clothing including gloves, apron, overshoes, chemical goggles and face shield. Do not breathe vapor or spray mist. Wear a MSHA/NIOSH approved pesticide respirator. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

Keep children and animals off treated areas. (Does not apply to uses for adult mosquito control or fly control or rangeland pests.)

#### TREATMENT OF PRACTICAL TREATMENT

If in eyes, hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention immediately.

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration and get medical attention immediately.

If swallowed, drink 1 or 2 glasses of water (or milk) and induce vomiting by touching the back of the throat with finger. If possible contact a physician, Poison Control Center or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest medical emergency treatment center.

If on skin, wash with plenty of soap and water. Get medical attention immediately.

**Note to Physicians:** Emergency Information — call 1-800-457-2022. Naled is a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (Protopam) is also antidotal and may be used in conjunction with atropine, but should not be used alone.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and wildlife. Do not apply directly to water or wetlands (swamps, bogs, marshes and potholes). Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds while bees are actively visiting the treatment area.

**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.

**READ ENTIRE LABEL AND PAMPHLET. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

**REENTRY STATEMENT**

(Reentry Statement does not apply to uses for adult mosquito or fly control or rangeland pests.)

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift. Do not enter treated areas prior to 24 hours after application without protective clothing.

Certain states may require more restrictive reentry intervals. Consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

USE DESIGNATED AMOUNT OF PRODUCT IN THE FOLLOWING GALLONS WATER PER ACRE UNLESS OTHERWISE NOTED.

**GROUND APPLICATION—Vegetable and Field Crops—** 30 to 250 gals. Cotton— 3 to 20 gals. Deciduous Fruit Crops— 60 to 800 gals. Citrus— 400 to 3,000 gals. (On Young Fruit Plantings— Use a minimum of 15 gals. water per acre.)

**AIR APPLICATION—Field Crops—** 3 to 10 gals.

A short residual contact insecticide for kill of insect and mite adults and larvae present at the time of application.

Begin application at first sign of insects. Repeat as necessary. Do not apply within 4 days of harvest unless otherwise noted. Do not use with highly alkaline materials such as lime or bordeaux.

Do not spray on Nectaries, Ornamental Cherries, Liquidambar or Chrysanthemums as injury may occur.

**MIXING DIRECTIONS:** Add to spray tank when 1/4 to 1/2 full with agitator running and maintain agitation until spraying is completed. Make new dilution for each use.

Wash metal equipment thoroughly after use to avoid corrosion.

#### DIRECTIONS

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

**ALMONDS:** Peach Twig Borer. Apply only once during the dormant or delayed dormant period. Apply 1 pt. in combination with 1 1/2 to 2 gals. supreme type oil or 2 to 3 gals. dormant oil spray per 100 gals. water in high gallonage spray equipment. Thorough coverage is required. Observe oil spray precautions.

**BEANS, LIMABEANS AND PEAS (DRY AND SUCCULENT FORM):** Alfalfa Looper, Aphids, Spider Mites, Lygus, Leafminer, Loopers, Nitidulids, Leafhoppers. 1 pt. per acre in water to cover 100 gals. per acre is preferable. For Large Loopers, Stink Bugs. 1 pt. per acre in water to cover. Aerial Application (California Only). 1 pt. per acre in minimum of 10 gals. of water per acre by air. Begin application at first sign of insects. Make only one application per 7 day period. Do not apply within 1 day of harvest. Do not feed treated vines.

**BROCCOLI, CABBAGE, CAULIFLOWER, BRUSSELS SPROUTS, KALE, COLLARDS:** Imported Cabbageworm, Diamondback Caterpillars, Aphids. 1 pt. per acre. Looper. 2 pts. per acre. Do not apply within 1 day of harvest.

**CELERY:** Aphids, Loopers, Armyworms, Salt Marsh Caterpillars, Leafminers. Use ground application only with fine mist spray. 1 pt. in 50 to 75 gals. water per acre on plants less than 1/2 grown. On larger plants use 1 1/2 pts. in 100 to 150 gals. water per acre. Do not apply within 1 day of harvest.

**COTTON:** Lygus. 1/2 to 1 pt. per acre by air or ground. Leaf Perforator, Fleahoppers, Armyworms, Bollworms, Loopers and For Suppression of Mites. 1 pt. per acre by air or ground. Apply at 7 to 10 day intervals while pests persist. **FOR HEAVY POPULATION OF LISTED INSECTS:** Use 1/2 pt. per acre by air or ground in control programs with other insecticides registered for use on cotton. Do not apply after first bolls open. Do not graze livestock in treated fields.

**GRAPES (Ground Use Only):** Drosophila, Leafhoppers. 1 to 2 pt. per 100 gals. water (100 to 130 gals. diluted spray per acre depending on size of vines). Use only 1/2 pt. per 100 gals. water on Muscat varieties. Do not apply within 4 days of harvest. **NOTE:** Do not use after first bloom forms on grapes for fresh fruit and cannery markets as fruit russeting will occur. Do not enter vineyards for 24 hours following treatment. Aerial Application (California Only). Problem—Overwintering Leafhoppers, Thrips, Postbloom—Drosophila, Leafhoppers. 1 pt. in a minimum of 20 gals. water per acre. Do not use on Italia varieties as fruit injury may occur. Do not apply within 4 days of harvest. Do not enter vineyards for 24 hours following treatment.

**ORANGES, LEMONS, GRAPEFRUIT, TANGERINES:** Aphids, Soft Brown Scale Crawlers, Mites. Citrus Cutworms, Leafroller (Tortrix). 1 pt. to 100 gals. water. Thrips (Bloom). 1/2 pt. per 100 gals. water. Use up to 7 days of harvest (Calif. and Ariz.). Do not apply within 1 day of harvest. Do not enter citrus groves for 24 hours following treatment.

**SAFFLOWER (CALIFORNIA AND ARIZONA ONLY):** Aphids, Thrips, Lygus. 1 pt. per acre. Apply in 3 to 10 gals. of water by air. Do not apply within 30 days of harvest.

**STRAWBERRIES:** Leafroller, Spider Mites, Omnivorous Leafhopper, Spittlebugs, Aphids, Thrips, Lygus. 1 pt. per acre. May be used 1 day before harvest.

**SUGAR BEETS:** Spider Mites, Leafhoppers. 1 pt. per acre by air or ground. By Air. Use in 1 to 5 gals. water per acre. Do not apply within 2 days of harvest.

**TOBACCO:** Hornworm. 1 pt. to 100 gals. water, using up to 200 gals. diluted spray per acre. Flea Beetles. 1 pt. per acre in water to cover. Apply at first sign of insects. Repeat as necessary.

**WALNUTS:** Aphids. 1/2 to 1 pt. per 100 gals. water. Aerial Application (California Only)—Aphids, Red-Humped Caterpillar. Apply 1 1/2 to 2 pts. per acre in 10 to 20 gals. of water by air. Do not apply within 10 days of harvest. Do not graze livestock in treated orchards.

**FOREST AND SHADE TREES: CONIFERS (Arboretum, Douglas Fir, Fir, Hemlock, Juniper, Pine, Spruce):** Suppression of Two-Spot on 1 Red Spider Mites, Aphids, Spittlebugs, Zimmerman Moths, Juniper Webworms, Tussock Moths, Spruce Budworms, Adult Sierra Fir and Western Hemlock Bark Borers. BROAD-LEAF TREES (Ash, Birch, Black Walnut, Box Elder, Dogwood, Elm, Evergreen Pear, Flowering Plum and Quince, Locust, Magnolia, Maple, Oak, Sycamore, Willow): Suppression of Two-Spot and Red Spider Mites, Aphids, Leafminers, Thrips, Elm Leaf Beetles, California Oakworms (California only), Spring and Fall Caterpillars, Fall Webworm, Oak Webworm, and Tussock Moths. 1 pt. in 100 gals. water. Use when infestation is evident, repeat as necessary.

**GREENHOUSE VAPOR TREATMENT OF ROSES, OTHER ORNAMENTAL PLANTS:** Spider Mites, Adult Whiteflies, Aphids, Leafrollers, Mealybugs. 1 fl. oz. per 10,000 cu. ft. when plants are dry. Apply undiluted on heat pipes (or in open pans on hot plates). Apply continuously or to intermittent sections of pipe on each side and on 1 or more of the pipes through center of each range depending upon width. Application to cold pipes should be followed by immediately heating pipes to 160 F. In steam heated houses, close vents for at least 1 hour after pipes are hot. With hot water systems, close house for at least 3 hours. Houses may remain closed overnight following treatment. When application is made to hot pipes, wear goggles and approved respirator. Ventilate house before workers re-enter. Wear respirator when entering treated houses to ventilate. Protect hives of bees in houses by covering with plastic or rubber sheet during treatment and until house is ventilated. Spider Mites (Resistant and Non-resistant). Make 3 to 4 treatments at 3 or 4 day intervals. Repeat as necessary. Adult Whiteflies. Make 2 applications at 7 day intervals. Repeat as necessary. Aphids. Apply when aphids appear. Repeat as necessary.

**NOTE:** Avoid overtreatment and direct application to plants as injury may result. White Butterfly and Golden Rapture Roses, Pink Champagne Chrysanthemums, Green Wandering Jew, Poinsettias and Dutchman's Pipe may be injured by DIBROM vapor.

**FRUIT FLIES (Drosophila sp.) in and around Food Processing Plants, Loading Docks, Cull Piles and Refuse Areas, Cider Mills:** Use 2 oz. in 2 1/2 gals. water (5 pts. to 100 gals.) as a coarse spray to walls, floors, doorways, windows, refuse and cull piles where insects congregate. Apply every 5 to 7 days as necessary. Do not apply to cull fruit or refuse piles to be fed to livestock. Avoid contamination of feeds, foodstuffs and food processing machinery. Do not apply when plants are in operation or when foods are present or exposed. Do not spray surfaces which will come into contact with foods. Cover food containers during spraying.

**GNAT, STABLE FLY (Gnat Flies), AND HOUSE FLY CONTROL—RESIDENTIAL AREAS, CROPS LISTED ON LABEL, SWAMPS, WOODLAND:** Consult your State Fish and Game Agency before applying this product. It is not necessary to avoid farm buildings. Make applications during peak fly infestation, and if repeat as necessary. See crop recommendations for use limitations near harvest. This rate of application will kill shrimp. Do not apply to tidal or marsh waters which are important shrimp producing areas. **AIRCRAFT:** East. Apply 0.8 to 4 fl. oz. per acre diluted with water. Apply 2 to 8 fl. oz. of dilute spray per acre. **WEST:** Apply 1.6 to 4 fl. oz. per acre diluted with water. Apply 2 to 8 fl. oz. of dilute spray per acre. **MIST OR COLD FOG:** Use 3 to 5 fl. oz. per 100 gals. water. Calibrate equipment (rate of travel and output) to apply 0.25 lb. technical naled per acre.

**ADULT MOSQUITO CONTROL—RESIDENTIAL AREAS, CROPS LISTED ON LABEL, SWAMPS, WOODLAND AND LIVESTOCK PASTURES INCLUDING DAIRY CATTLE:** Consult your State Fish and Game Agency before applying this product. Make applications during peak fly infestation, and if repeat as necessary. See crop recommendations for use limitations near harvest. This rate of application will kill shrimp. Do not apply to tidal or marsh waters which are important shrimp producing areas. **AIRCRAFT:** East. Apply 0.8 to 1.6 fl. oz. per acre diluted with water. Apply 2 to 8 fl. oz. of dilute spray per acre. **WEST:** Apply 1.6 to 4 fl. oz. per acre diluted with water. Apply 2 to 8 fl. oz. of dilute spray per acre. **MIST OR COLD FOG:** Use 3 to 5 fl. oz. per 100 gals. water. Calibrate

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equipment (rate of travel and output) to apply 0.1 lb. technical rated per acre. Do not make more than one application every 10 days to pasture or other areas where lactating dairy animals are being held.

**REDUCTION OF LIVESTOCK PESTS:** East Stable Fly (Bog Fly), Housefly, Mosquito, Horn Fly (Control and North Central U.S.) IN CORNALS, HOLDING PENS, FEEDLOTS AND RANGELAND CATTLE AND SHEEP AND BEEF CATTLE, HORSES, SHEEP AND HORSES: AERIAL APPLICATION: Apply 4 fl. oz. diluted with 8 fl. oz. of water (total of 12 fl. oz.) per acre (0.25 lb. technical rated per acre). GROUND APPLICATION: Use 5 pts. per 100 gals. water. Apply with a mist blower or similar equipment as a space treatment. Calibrate equipment (rate of travel and output) to apply 0.25 lb. technical rated per acre (approximately 5 gals. of diluted spray).

**CLOVER MITES, ROACHES, EARWIGS AND LEAFHOPPERS**—Outside Dwellings and Lawns: Use 1 fl. oz. in 3 gals. water. Apply to turf and to soil surfaces around flowers, shrubs and trees for general pest cleanup.

**GRASSHOPPERS, RANGE CATERPILLARS:** Rangeland— $\frac{1}{2}$  to  $\frac{3}{4}$  pt. per acre by air or ground. Young Grasshoppers— $\frac{1}{2}$  pt. per acre by air or ground. Armyworms—1 pt. per acre by air or ground. By Air—Use in 1 to 5 gals. water per acre. Apply when hoppers hatch is completed. Repeat as necessary. Animals may be present during treatment. Do not graze lactating dairy animals on treated areas.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

## STORAGE AND DISPOSAL

### PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

### STORAGE

Store in cool, dry place.

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Not for use or storage in or around the home.

Do not store diluted spray.

For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-457-2022.

### PESTICIDE DISPOSAL

This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL

Triple rinse (or equivalent). Do not reuse container. Dispose of in a sanitary landfill or by other procedures allowed by State and local authorities.

### IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

**LIMITED WARRANTY:** 1. Valent U.S.A. Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. Valent does not make nor authorizes any agent or representative to make any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.

2. Critical and unforeseeable factors beyond Valent's control prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labeling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Valent under 1 above) resulting from handling, storage, and use of the product.

3. Precautions stated on the labeling should be followed to avoid hazardous exposure to the product.

Manufactured for

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Walnut Creek, CA 94596-8025

R-Form 106-C Product 2738 Made in U.S.A.

EPA Reg. No. 59639-15-AA

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