

**RESTRICTED USE PESTICIDE**

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

# Guthion 2L

## Emulsifiable Insecticide

### For effective economical insect control.

**ACTIVE INGREDIENTS:**

|   |       |
|---|-------|
| O,O-Dimethyl S-[(4-oxo-1,2,3-benzotriazin-3(4H)-yl)methyl] phosphorodithioate | 22.2% |
| Aromatic Petroleum Distillate   | 67.8% |

**INERT INGREDIENTS:**

|                       |        |
|-----------------------|--------|
| EPA Reg. No. 3125-102 | 100.0% |
| EPA Est. 3125-MO-1    |        |

Contains 2 lbs. O,O-Dimethyl S-[(4-oxo-1,2,3-benzotriazin-3(4H)-yl)methyl] phosphorodithioate per gallon.

**STOP**—Read the label before use.

**DANGER**  **POISON**

Keep out of reach of children.

(See side panel for antidote and danger statements)

**Net Contents 50 Gallons**



Chemagro Agricultural Division  
Mobay Chemical Corporation  
Box 4913, Kansas City, Missouri 64120

**Do not store below 55°F.**  
Protect from heat. Keep away from open flame. Do not heat.

**Aviso.**

**AL USUARIO:** Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

**Directions for use.**

**FOR COMPLETE DIRECTIONS FOR USE REFER TO SUPPLEMENTAL LABELING ACCOMPANYING THIS CONTAINER.**

**IMPORTANT:** Read these entire Directions and Conditions of Sale before using GUTHION 2L emulsifiable insecticide.

**CONDITIONS OF SALE:** The directions on this label were determined through research to be the directions for correct use of this product. This product has been tested for a range of weather conditions similar to those weather conditions that are ordinary and customary in the geographic area where the product is used. Insufficient control of pests may result from the occurrence of extraordinary or unusual weather, or from failure to follow label directions. In addition, failure to follow label directions may cause injury to the crop to which the product is applied, other crops, animals, man, or the environment. Chemagro and the seller offer, and the buyer accepts and uses, this product subject to the conditions that extraordinary or unusual weather, or fail-

ure to follow label directions are beyond the control of Chemagro and are, therefore, the responsibility of the buyer.

**Restrictions.**

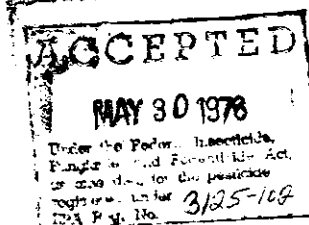
Do not use on other crops used for food or forage. Use only according to label directions. Application at rates above those shown may result in illegal crop residues. Do not graze livestock in treated orchards or groves for 21 days after treatment. Do not treat food crops grown in the greenhouse.

Highly toxic to fish and wildlife. Do not contaminate any body of water nor apply to any area not specified on the label.

**Container Disposal.**

**DO NOT REUSE THE CONTAINER—** Completely empty the contents and bury the unused chemical at least 18 inches deep in an isolated location away from water supplies. Rinse empty drum by filling with water and add 1 cup of household lye to each 5 gallons of water. Bury rinse solution at least 18 inches deep in an isolated area away from water supply. Punch holes in the top and bottom of the can, crush the can, and bury deeply in an isolated location.

Do not use container in any connection with feed, food, and drinking water.



**DANGER**  **POISON**

Poisonous if swallowed, inhaled, or absorbed through the skin. Do not get in eyes or on skin. Do not breathe fumes or spray mist. Spray operator should work to windward to stay out of drift or mist.

When loading spray tank or handling the concentrate at any other time, wear protective clothing, natural rubber gloves, and goggles. A mask or respirator recommended by the U.S. Bureau of Mines for protection against GUTHION should also be worn when handling the concentrate.

Do not contaminate feed or foodstuffs. Keep out of reach of children and domestic animals. Keep all unprotected persons out of the operating area or vicinity where there may be danger of drift. Wash hands, arms, and face thoroughly with soap and warm water before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse.

**SYMPTOMS OF POISONING:** A sense of "tightness" in the chest. Sweating. Contacted pupils. Stomach pains. Vomiting and diarrhea.

**TREATMENT:** In case of poisoning call a physician immediately. Have patient lie down and keep quiet. If swallowed, administer milk or water freely and induce vomiting by giving one dose (½ oz. or 15 ml.) of syrup of ipecac. If vomiting does not occur within 30 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. Professional medical assistance should be secured immediately. If on skin, remove contaminated clothing and wash skin immediately with soap and warm water. If eyes are contaminated, wash with flowing water for at least 15 minutes.

**To physician.**

**ANTIDOTE—**Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered in conjunction with atropine.

Compound inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

GUTHION is a Reg. TM of the Parent Company of Farbwerke Bayer GmbH, Leverkusen.

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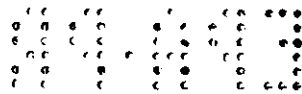
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## RESTRICTED USE PESTICIDE

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# Guthion 2L

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(4H)-yl)methyl] phosphorodithioate 22.2%  
Aromatic Petroleum Distillate ..... 67.8%

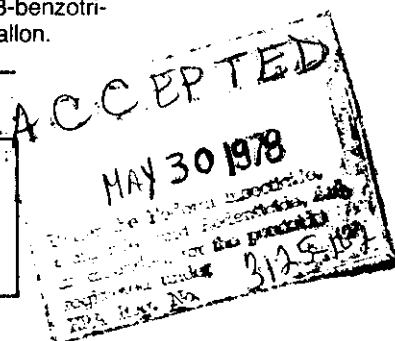
INERT INGREDIENTS: ..... 10.0%  
100.0%

EPA Reg. No. 3125-102

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## MIXING:

GUTHION 2L emulsifiable insecticide forms an emulsion when diluted with water and is suitable for use in all power-operated ground sprayers and aircraft sprayers. To mix with water, pour the required amount of GUTHION 2L into full amount of water and then agitate. GUTHION 2L may also be applied undiluted as an ultra-low volume spray with either ground or aircraft equipment that has been adapted and calibrated for ultra-low volume spraying as described below under "Recommended Applications" for those crops specified.

## DOSAGE:

Use specified dosage of GUTHION 2L in the amount of water necessary to give complete coverage of foliage. The type of equipment used will determine the concentration required.

## SPRAYING:

Work to windward. Protect sprayer operators from drift or mist. When low volumes of spray are applied, complete coverage and thorough application are essential for most effective results. Schedule applications in accordance with local conditions. Consult your State Agricultural Extension Service or Experiment Station for specific use information in your area.

## RECOMMENDED APPLICATIONS

| CROP   | INSECT   | Pints<br>GUTHION 2L | REMARKS   |
|--|--|---------------------|---|
| <b>FIELD CROPS</b><br>Alfalfa<br>Clover                    | Alfalfa weevil   | 1 to 3              | Apply specified dosage per acre using a minimum of 10 gallons of water per acre when applying with ground equipment, and a minimum of 5 gallons per acre for aerial applications for alfalfa weevils and at least 1 gallon per acre for the other insects listed. It may be necessary to use 20 to 25 gallons of water per acre on heavy growth for control of alfalfa weevil or Egyptian alfalfa weevil with ground equipment.   |
|  | Leafhoppers<br>Mites   | 1 to 2              |   |
|  | Egyptian alfalfa weevil  | 1½ to 3             |   |
|  | Alfalfa plant bug<br>Flea hopper<br>Grasshoppers<br>Lygus bugs<br>Spittlebug           | 2 to 3              |   |
| Cotton<br>(Conventional<br>Or Low<br>Volume<br>Spray)      | Boll weevil  | ½ to 1              | Apply specified dosage per acre by air or ground equipment in at least 1 gallon of water. For early season control of bollworm and pink bollworm use 2 to 3 pints and for mid-to-late season applications use 3 to 4 pints. Repeat as necessary. Do not apply within 1 day of picking. Cotton receiving late season applications should not be pastured and gin trash from this cotton should not be fed.   |
|  | Brown cotton leafworm<br>Cotton flea hopper<br>Cotton leafworm<br>Lygus bugs<br>Thrips | 1                   |   |
|  | Rapid plant bug<br>Tarnished plant bug   | 1 to 2              |   |
|  | Stink bug  | 2                   |   |
|  | Bollworm<br>Pink bollworm  | 2 to 4              |   |
|  |  |                     |   |
| Cotton <sup>***</sup><br>(Ultra<br>Low<br>Volume<br>Spray) | Boll weevil  | ½ to 1              | GUTHION 2L may be used undiluted in any ground or aerial spray equipment that has been adapted and calibrated for ultra-low volume spraying. Spray machines must be equipped with accepted low volume devices that will produce droplets within the range of 30 to 100 microns in size. ULV aerial applications should be made at altitudes of 10 to 20 feet. Repeat applications as necessary but not within 2 days of hand picking. Cotton may be machine harvested anytime after application. Do not graze livestock in treated areas. Do not feed gin trash to livestock. (Cont. next column) |

# RECOMMENDED APPLICATIONS

| CROP  | INSECT  | Pints<br>GUTHION 2L | REMARKS  |
|---|---|---------------------|--|
| (Cont.)<br>Cotton "1"<br>(Ultra<br>Low<br>Volume<br>Spray)  | Boll weevil   | 1/2 to 1            | Early and Mid-season control: Apply specified dosage per acre in accordance with local recommendations.  |
|   |   | 1                   | Diapause Weevil Control: The one pint per acre rate only is recommended for control of diapausing boll weevils. Schedule applications in accordance with local recommendations.  |
| Barley<br>Oats<br>Rye<br>Wheat  | Cereal leaf beetle  | 1 1/2<br>to 2       | Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than 1 gallon per acre. Do not apply more than once per season. Do not harvest for food, feed, forage or graze within 30 days of treatment.  |
| Soy-<br>beans   | Aphids<br>Bean leaf beetle<br>Green cloverworm<br>Leafhoppers<br>Leaf miners<br>Leaf rollers<br>Stink bugs<br>Velvet bean caterpillar   | 1 1/2<br>to 2       | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. Repeat as necessary. Do not apply within 45 days of harvest. Do not graze or feed treated vines to live-stock.   |
|   | Mexican bean beetle   | 2 to 3              |  |
| Sugarcane<br>(Conven-<br>tional<br>Spray)<br>(Florida,<br>Louisiana and<br>Texas<br>only)               | Sugarcane borer   | 3                   | Apply specified dosage per acre by air application using a minimum of 2 gallons of water per acre. For best results applications should be made at approximately cane top level and not more than 10 feet above cane top level. Do not apply more than 5 times per season nor within 30 days of harvest. Bagasse from sugarcane treated with GUTHION may be used for feed of cattle, goats, and sheep. Consult your State Agricultural Extension Service or Experiment Station for specific use information.   |
| Sugar-<br>cane "1"<br>(Ultra<br>Low<br>Volume<br>Spray)<br>(Florida,<br>Louisiana and<br>Texas<br>only) | Sugarcane borer   | 3                   | Apply specified dosage per acre undiluted. GUTHION 2L may be used undiluted in any aerial spray equipment that has been adapted and calibrated for ultra low volume spraying. Planes must be equipped with accepted low volume devices that will produce droplets within the range of 30 to 100 microns in size. For best results applications should be made at approximately cane top level and not more than 10 feet above cane top level. Do not apply more than 5 times per season nor within 30 days of harvest. Bagasse from sugarcane treated with GUTHION may be used for feed of cattle, sheep and goats. Consult your State Agricultural Extension Service or Experiment Station for specific use information.  |
| Tobacco   | Aphids<br>Grasshoppers<br>Tobacco hornworm<br>Tobacco flea beetle   | 2 to 3              | Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than 1 gallon per acre. Treat for hornworms as soon as egg masses or worms are first found. Repeat as necessary but not within 6 days of harvest. Prime before treating.   |
|   | Tobacco budworm   | 3                   |  |
| Fruit<br>Apricots<br>Nectar-<br>ines<br>Peaches   | Aphids<br>Cottony peach<br>scale<br>European fruit<br>lecanium scale<br>Forbes scale<br>Lesser peach<br>tree borer<br>Mites<br>Peach tree<br>borer  | 1 to 1 1/4          | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 800 gallons of finished spray per acre. Repeat as necessary. Do not apply more than 8 times per season, within 21 days of harvest for apricots, nectarines, and peaches, nor within 15 days of harvest for plums and prunes. Apply the 1 1/2-pint rate for oriental fruit moth or peach twig borer on apricots, nectarines and peaches only before mid-season. For control of peach tree borer, apply 2 or 3 sprays to trunk from ground to scaffold limbs, timed with moth flight. For scale control, apply when crawlers are present. NOTE: It is suggested that when treating nectarines during bloom period, beekeepers should be warned well in advance to remove hives a safe distance from orchards to be treated. |
|   | Platynota<br>flavodana<br>leaf roller<br>Plum curculio<br>Red-banded<br>leaf roller<br>San Jose scale<br>Stink bug<br>Tarnished plant<br>bug<br>Terrapin scale<br>Walnut scale<br>White peach scale |                     |  |
|   | Oriental fruit moth<br>Peach twig borer   | 1 to 1 1/2          |  |
| Nectar-<br>ines   | Thrips  | 1 to 1 1/4          |  |
| Plums<br>Prunes   | Aphids<br>Eye-spotted<br>bud moth<br>Forbes scale<br>Fruit tree<br>leaf roller<br>Lesser peach<br>tree borer<br>Mites<br>Orange tortrix<br>Peach tree borer   | 1 to 2              |  |
|   | Peach twig<br>borer<br>Plum curculio<br>Red-banded<br>leaf roller<br>San Jose scale<br>Stink bug<br>Tarnished plant<br>bug<br>Tussock moth<br>American plum borer                                   |                     |  |

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|  |  |            |  |
|--|--|------------|--|
| Black-berries<br>Boysen-berries<br>Logan-berries<br>Rasp-berries | Leafhoppers  | 1          | Apply specified dosage per acre to foliage using approximately 200 gallons of water for good coverage. Where ground conditions dictate an air application of GUTHION 2L, use specified rate in a minimum of 1 gallon of water per acre. Repeat as necessary but not within 14 days of harvest.   |
|  | Leaf rollers   | 1 1/4      |  |
|  | Aphids   | 1 1/4 to 2 |  |
|  | Obscure root weevil  | 2          |  |
|  | Raspberry crown (root) borer   | 4 to 8     | For control of root weevils and borers prior to harvest apply specified dosage per acre to lower portion of canes and to the soil beneath the plants using approximately 200 gallons of water. Do not apply more than twice per season. Do not make applications within 3 days of harvest at rates up to 4 pints per acre. Rates above 4 pints per acre should be applied only before fruit set or after crop is harvested.  |
|  | Obscure root weevil  | 2          |  |
| Blue-berries<br>(Eastern & North Central States Only)            | Blueberry maggot<br>Fruitworms<br>Lecanium Scale<br>Plum curculio  | 2 to 3     | Apply specified dosage per acre using approximately 200 gallons of water for good coverage. Where ground conditions dictate an air application of GUTHION 2L use specified rate in a minimum of 1 gallon of water per acre. Repeat as necessary but not more than 4 times per season nor within 3 days of harvest. If multiple late season applications of dust formulations containing GUTHION are to be made for blueberry maggot control, then do not make more than two spray applications of GUTHION 2L per season with the last spray no later than June 15. |
| Cran-berries   | Cranberry fruitworm<br><i>Sparganothis sulfureana</i><br>Tipworm   | 2 to 4     | Apply specified dosage per acre using approximately 200 gallons of water for good coverage. Where ground conditions dictate an air application of GUTHION 2L use specified rate in a minimum of 1 gallon of water per acre. Repeat as necessary. Do not apply within 21 days of harvest.   |
|  | Fireworms  | 4          |  |
| Cherries   | Eye-spotted bud moth<br>Forbes scale<br>Fruit flies<br>Fruit tree leaf roller<br>Lesser peach tree borer<br>Mites<br>Plum curculio<br>San Jose scale | 1 to 2     | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 800 gallons of finished spray per acre. Repeat as necessary. Do not apply more than 8 times per season nor within 15 days of harvest.   |
|  | Cherry leaf miner<br><i>Mineola</i> moth   | 1          |  |

\*Note: This formulation, when used undiluted may cause spotting of automobile finishes if prolonged exposure is permitted. Do not spray directly over automobiles. If accidental exposure does occur, automobiles should be washed immediately.

U.S. DEPARTMENT OF AGRICULTURE  
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
WASHINGTON, D. C. 20250

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## RECOMMENDED APPLICATIONS

| CROP                                       | INSECT  | Pints<br>GUTHION 2L | REMARKS   |
|--|---|---------------------|---|
| Citrus<br>Fruits                           | Aphids<br>Black scale<br>Brown soft scale<br>Chaff scale<br>Citricola scale<br>Citrus mealybug<br>Citrus rust mite<br>Citrus thrips<br>Cottony-cushion scale<br>European brown snail<br>Florida red scale<br>Fruit tree leaf<br>rollers<br>Fuller rose beetle<br>Glover scale<br>Orange tortrix<br>Purple scale<br>Snow scale<br>Western tussock moth<br>Whiteflies | 1 to 1½             | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 2000 gallons of finished spray per acre. A single application per year may be applied up to within 7 days of picking. Where 2 applications are required, the second spray should not be applied within 28 days of harvest. Do not apply more than twice per fruit year. Do not pick fruit or do other work involving contact with the tree, such as pruning, within 7 days of treatment. |
|  | California red scale<br>Texas citrus mite<br>Yellow scale   | 1½                  |   |
| Grapes                                     | Grape berry moth<br>Grape cane girdlers<br>Grape mealybug<br>Leafhoppers<br>Mites<br>Red-banded leaf<br>roller<br>Thrips  | 1 to 2              | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 300 gallons of finished spray per acre. Repeat as necessary but not more than 3 times per season. Minimum dosage specified may be applied up to harvest. Higher rates up to 1½ pints require a 10-day interval to harvest and above 1½ pints a 28-day interval to harvest.   |
| Straw-<br>berries                          | Aphids<br>Meadow spittlebug<br>Oblique-banded<br>leaf roller<br>Omnivorous leaf tier<br>Obscure root weevil<br>Pea leaf weevil<br>Small black (Grass)<br>weevil<br>Strawberry leaf<br>rollers<br>Whitefly   | 2                   | Apply specified dosage in 200 gallons of water per acre as a full coverage spray*. Where ground conditions dictate an air application, use specified rate in a minimum of 1 gallon of water per acre. Repeat as necessary. Do not apply within 5 days of harvest.   |
| NUTS<br>Almonds                            | Peach twig borer  | 1½ to 2             | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 500 gallons of finished spray per acre. Do not apply more than twice per season nor within 60 days of harvest. Allow 30 days between applications.   |
| Filberts<br>(Pacific<br>Northwest<br>Only) | Apple mealybug<br>Filbert aphid<br>Filbert leaf roller<br>Filbertworm   | 1 to 3              | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 1000 gallons of finished spray per acre. Repeat as necessary. Do not apply within 30 days of harvest. Do not graze livestock in treated groves for 21 days after treatment.  |
| Pecans                                     | Aphids<br>Fall webworm<br>Hickory shuckworm<br>Leaf miners<br>May beetles<br>Mites<br>Pecan casebearer<br>Southern green<br>stink bug<br>Spittlebug<br>Twig girdlers<br>Walnut caterpillar  | 1½ to<br>2¼         | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 1800 gallons of finished spray per acre. Repeat as necessary. Do not apply after husks split. Where more than 22½ pints of GUTHION 2L are applied per acre in a single application do not graze livestock in treated groves. Where 22½ pints or less of GUTHION 2L are applied per acre livestock may be grazed in treated groves after a 21-day post-treatment interval.                |
| Walnuts                                    | Codling moth<br>Filbertworm   | 1½ to<br>3%         | Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 1100 gallons of finished spray per acre. Repeat as necessary. Do not apply after husks split. Do not graze livestock in treated groves for 21 days after treatment.  |

|   |   |         |   |
|---|---|---------|---|
| <b>VEGETABLES</b><br>Artichokes                           | Plum moth   | 6       | Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than 1 gallon per acre. Repeat as necessary. Do not apply within 30 days of harvest. Do not feed or ensile treated forage.  |
| Beans<br>(Snap & Dried)                                   | Leaf rollers<br>Mites   | 1 to 2  | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. Repeat as necessary. Do not apply to snap beans within 7 days of harvest nor to dry beans within 30 days of harvest. Do not exceed 4 applications on dry beans. Do not feed or ensile treated forage. |
|   | Aphids<br>Bean leaf beetle<br>Green cloverworm<br>Leafhoppers<br>Leaf miners<br>Stink bugs<br>Velvet bean caterpillar               | 1½ to 2 |   |
|   | Mexican bean beetle<br>Spotted cucumber beetle<br>Striped cucumber beetle<br>Tarnished plant bug<br>Western-striped cucumber beetle | 2       |   |
| Broccoli<br>Brussels<br>Sprouts<br>Cabbage<br>Cauliflower | Aphids<br>Cabbage looper<br>Diamondback moth<br>Imported cabbageworm  | 2 to 3  | Apply specified dosage per acre in sufficient water for complete coverage but not less than 1 gallon per acre. Repeat as necessary. Do not apply within 7 days of harvest for Brussels sprouts, 15 days of harvest for broccoli and cauliflower, nor within 21 days of harvest for cabbage.   |
|   | Cabbage maggot  | ½       | Mix specified dosage in 50 gallons of water. Apply 4 to 6 ounces of this emulsion per plant immediately after transplanting.  |
|   | Cabbage maggot<br>(Transplant fields in California only)  | 3       | Apply specified dosage in 300 to 400 gallons of water per acre as a soil drench in the rows when damage first appears. Additional applications may be necessary. Do not apply within 21 days of harvest.  |
|   | Cabbage maggot<br>(Direct Seeded fields in California only)   | 3       | Apply specified dosage per acre in sufficient water for uniform distribution. Mix in the upper 2 inches of soil prior to seeding or spray in the seed row at planting time. Usually 2 to 3 additional sprays are necessary during the growing season depending upon time of year and maggot population. Do not apply within 21 days of harvest.     |
| Celery  | Aphids<br>Leaf miners<br>Leafhoppers<br>Spittlebugs<br>Tarnished plant bug  | 2       | Apply specified dosage in 100 gallons of water as a full coverage spray using not more than 200 gallons of finished spray per acre. Repeat as necessary but not within 14 days of harvest.  |
| Blackeyed peas<br>(Southern peas, Crowder peas)           | Corn earworm<br>Cowpea curculio   | 3 to 4  | Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than 1 gallon per acre. Do not apply more than 4 times per season nor within 7 days of harvest. Do not use vines for feed or forage nor pasture treated areas.  |
|   | Leaf miners<br>Stink bugs   | 1½ to 2 |   |
| Cucumbers   | Spotted cucumber beetle<br>Striped cucumber beetle<br>Western-striped cucumber beetle   | 2       | Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than 1 gallon per acre. Do not apply more than 3 times per season nor within 1 day of harvest.  |
| Eggplant  | Leaf miners   | 1½ to 2 | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. Repeat as necessary. Do not apply after fruit set.  |
|   | European corn borer<br>Flea beetles   | 2       |   |
| Onions<br>(Green & Dry)                                   | Thrips  | 2 to 3  | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. Do not apply more than 3 times per season nor within 28 days of harvest of dry onions or 7 days of harvest of green onions.   |
| Peppers   | Leaf miners   | 1½ to 2 | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. A maximum of 4 treatments may be made up to within 3 days of harvest. Where more than 4 applications are required, do not apply last spray within 14 days of harvest.                                 |
|   | European corn borer<br>Flea beetles   | 2       |   |

## RECOMMENDED APPLICATIONS

| CROP  | INSECT   | Pints<br>GUTHION 2L | REMARKS   |
|---|--|---------------------|---|
| Potatoes  | Colorado potato beetle   | 1½                  | Apply specified dosage per acre by air or ground equipment in sufficient water for complete coverage but not less than 1 gallon per acre. Repeat as necessary. Do not apply within 7 days of harvest.   |
|   | Banded cucumber beetle<br>Leaf miners  | 1½ to 2             |   |
|   | European corn borer<br>Flea beetle<br>Leafhoppers<br>Spittlebugs<br>Tarnished plant bug            | 2 to 3              |   |
|   | Tuberworm  | 2¼ to 3             |   |
| Spinach   | Aphids<br>Leaf miners<br>Mites   | 1½ to 2             | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. Repeat as necessary. Do not apply within 14 days of harvest.  |
| Tomatoes  | Colorado potato beetle   | 1½                  | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. Repeat as necessary. The high rates should be used where heavy infestations of late instar lepidopterous larvae (large worms) and pinworms are present. Rates of 3 pints per acre or less may be applied up to day of harvest. Rates above 3 pints per acre require an interval of 14 days between application and harvest. |
|   | Banded cucumber beetle<br><i>Drosophila</i><br>Green stink bug<br>Leaf miners<br>Whitefly          | 1½ to 2             |   |
|   | Aphids<br>European corn borer<br>Flea beetles<br>Grasshoppers<br>Leafhoppers<br>Thrips             | 2 to 3              |   |
|   | Tuberworm  | 2¼ to 3             |   |
|   | Corn earworm<br>Fruitworm<br>Hornworm<br>Pinworm<br>Yellow-striped armyworm                        | 3 to 6              |   |
| <b>MELONS</b><br>Honeydew<br>Melons<br>Musk-<br>melons<br>(Cantaloupe)<br>Water-<br>melons<br>Other<br>melons | Leafhoppers<br>Leaf miners   | 1½ to 2             | Apply specified dosage per acre by air or ground equipment in sufficient water to give complete coverage but not less than 1 gallon per acre. Repeat as necessary up to the day of harvest but not more than 4 times per season.  |
|   | Rindworms<br>Spotted cucumber beetle<br>Striped cucumber beetle<br>Western-striped cucumber beetle | 2                   |   |

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| <b>ORNAMENTALS</b><br>Orna-<br>mentals<br><br>Nursery<br>Plants<br><br>Forest &<br>Shade<br>Trees  | Aphids<br>Cercococcus scale<br>Euonymus scale<br>Juniper scale<br>Lace bugs<br>Leafhoppers<br>Mites<br>Olive scale<br>Oystershell scale<br>Pulvinaria scale<br>Thrips | 1½ to 2     | Apply specified dosage per 100 gallons of water (2 teaspoonsful per gallon). Spray all foliage surfaces including the underside of leaves for complete coverage. For control of black pine leaf, brown soft, European elm, and Putnam scales, use 1 tablespoonful per gallon. Repeat as necessary.  |
|  | Brown soft scale<br>Putnam scale  | 4           |   |
|  | European elm scale<br>Black pine leaf scale   | 3 to 4      |   |
|  | Cone midge<br>Cone moth   | 8 to 16     | Apply specified dosage per 100 gallons of water. Time applications to coincide with moth flight when cones are open for pollination. Thorough coverage of cones is necessary for maximum control. Repeat as necessary.  |
|  | European pine shoot moth<br>Nantucket pine tip moth   | 1½ to 3     | Apply specified dosage per acre in sufficient water for good coverage. Time applications to coincide with moth flights. For application to individual trees, use 1 tablespoonful of GUTHION 2L per gallon of water.   |
| Injury to hawthorn or American linden may occur under some conditions. Do not allow children or pets on treated area until material has been washed into the soil and treated area is dry. |   |             |   |
| Southern Pine Seed Orchards  | Coneworm<br>Seedworm  | See Remarks | Use 6 pints per 100 gallons of water (0.2% dilution) for high volume sprayers or 3 pints per 10 gallons of water (1% dilution) for low volume sprayers. Apply first application within 30 days following conelet closure, followed by 3 to 5 applications (at least 30 days apart). Apply approximately 5 to 10 gallons of the 0.2% dilution with high volume sprayers or approximately 1 to 2 gallons of the 1% dilution with low volume sprayers per tree. Thorough coverage of cones is necessary for maximum control. |

\*This concentration is calculated for conventional hydraulic-type sprayers. When lower volumes of spray are applied per acre with concentrate sprayers, increase the concentration of GUTHION 2L in the spray mixture in order to apply amount of GUTHION 2L per acre equivalent to a full coverage spray. Where conditions dictate an air application, apply dosage per acre equivalent to a full coverage ground spray in not less than one gallon of water per acre.

## RESTRICTIONS.

Do not use on other crops used for food or forage. Use only according to label directions. Applications at rates above those shown may result in illegal crop residues. Do not graze livestock in treated orchards or groves for 21 days after treatment. Do not treat food crops grown in the greenhouse.

Highly toxic to fish and wildlife. Do not contaminate any body of water nor apply to any area not specified on the label.

## CONTAINER DISPOSAL.

**DO NOT REUSE THE CONTAINER—** Completely empty the contents and bury the unused chemical at least 18 inches deep in an isolated location away from water supplies. Rinse empty drum by filling with water and add 1 cup of household lye to each 5 gallons of water. Bury rinse solution at least 18 inches deep in an isolated area away from water supply. Punch holes in the top and bottom of can, crush the can, and bury deeply in an isolated location.

Do not use container in any connection with feed, food, and drinking water.

# DANGER



# POISON

Poisonous if swallowed, inhaled, or absorbed through the skin. Do not get in eyes or on skin. Do not breathe fumes or spray mist. Spray operator should work to windward to stay out of drift or mist.

When loading spray tank or handling the concentrate at any other time, wear protective clothing, natural rubber gloves, and goggles. A mask or respirator recommended by the U.S. Bureau of Mines for protection against GUTHION should also be worn when handling the concentrate.

Do not contaminate feed or foodstuffs. Keep out of reach of children and domestic animals. Keep all unprotected persons out of the operating area or vicinity where there may be danger of drift. Wash hands, arms, and face thoroughly with soap and warm water before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse.

**SYMPTOMS OF POISONING:** A sense of "tightness" in the chest. Sweating. Contracted pupils. Stomach pains. Vomiting and diarrhea.

**TREATMENT:** In case of poisoning call a physician immediately. Have patient lie down and keep quiet. If swallowed, administer milk or water freely and induce vomiting by giving one dose (½ oz. or 15 ml.) of syrup of ipecac. If

vomiting does not occur within 30 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. Professional medical assistance should be secured immediately. If on skin, remove contaminated clothing and wash skin immediately with soap and warm water. If eyes are contaminated, wash with flowing water for at least 15 minutes.

## TO PHYSICIAN.

**ANTIDOTE—**Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered in conjunction with atropine.

Compound inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

GUTHION is a Reg. TM of the Parent Company of Farbenfabriken Bayer GmbH, Leverkusen.