

59639-28

7/26/2002

1/13



ACCEPTED

 JUL 26 2002

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 59639-28

ORTHENE[®]
 Tree & Ornamental Spray
 (Insecticide)

Active Ingredient	By Wt.
Acephate*	75%
Other Ingredients	25%
Total	100%

*O,S-Dimethyl acetylphosphoramidothiote

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET WEIGHT _____ POUNDS

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist. Wash hands thoroughly after handling.

FIRST AID	
Acephate is an organophosphate, cholinesterase inhibitor.	
If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 for emergency medical treatment information.	
NOTES TO PHYSICIAN	
This material contains a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure but decisions regarding treatment will usually need to be made before test results are available. 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.	

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, and 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.

USER SAFETY RECOMMENDATIONS
<p>Users should:</p> <ul style="list-style-type: none"> • 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. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3/13

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Cover or soil-incorporate spills.

This product is highly toxic to bees exposed to direct treatment or residues 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.

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.

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. 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 enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 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, and shoes plus socks.

4/13

**DISCLAIMER, RISKS OF USING THIS PRODUCT,
LIMITED WARRANTY
AND LIMITATION OF LIABILITY**

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

In no event shall Valent or Seller be liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

If Buyer does not notify Valent of any claims in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

5/13

DIRECTIONS

Do not apply on edible crops.

Also for use in accordance with these recommendations and instructions issued by the United States Department of Agriculture for quarantine programs and to be used only by or under the direction of federal/state personnel for quarantine treatments.

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

6/13

TREES AND SHRUBS

PLANTS	INSECTS	AMOUNT OF ORTHENE TREE & ORNAMENTAL SPRAY PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Trees and Shrubs (except Flowering Crabapple see below).	Aphids Bagworms Birch Leafminer Tent Caterpillar* Lace Bugs Leafrollers	1/3 lb. (5.3 oz.)	As the insects begin to appear.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy Moth larvae. *Mist blower application. Adjust rates to 1 1/2 lbs. per 100 gals. water for Gypsy Moth control 1.0 lb. per 100 gals. water for Tent Caterpillar control. Do not apply to Huckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar and Viburnum suspensum. Nursery crops. Before treating large plantings, spray only a few plants and observe two weeks for phytotoxicity.
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae* Webworms	2/3 lb. (10.5 oz.)	As the insects begin to appear	
	Scales (crawlers)	2/3 lb. (10.5 oz.)	As crawlers begin to appear. Repeat applications, at a 2 week or more interval, may be necessary where there is continuous crawler production.	
Trees and Shrubs (except Flowering Crabapple see below).	Ponderosa Pine Needle Miner	2/3 lb. (10.5 oz.)	Time of application is important. Consult your Farm Advisor or County Extension Agent.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Grasshoppers	2/3 lb. (10.5 oz.)	As the grasshoppers begin to appear.	
	California Oakworm Cankerworms (Spring and Fall)	1/3 to 2/3 lb. (5.3 to 10.5 oz.)	As the insects begin to appear. Use the higher amount when the larger larvae are present.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer.
	Nantucket Pine Tip Moth Larvae	1 lb. (16 oz.)	Time of application is important, consult your Farm Advisor or County Extension Agent. Repeat applications will be required for subsequent generations.	

7/13

TREES AND SHRUBS (continued)

PLANTS	INSECTS	AMOUNT OF ORTHENE TREE & ORNAMENTAL SPRAY PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Trees and Shrubs (except Flowering Crabapple see below).	Root Weevil Adults	1 lb. (16 oz.)	Apply when first feeding damage occurs. Repeat applications, at four week intervals until the first heavy frost, may be necessary for complete foliage protection.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Elm Leaf Beetle Box Elder Bugs Sawflies Budworms Leafhoppers	1 lb. (16 oz.)	As the insects begin to appear.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Japanese Beetle	1 1/2 lbs. (21.3 oz.)	As the Japanese Beetles begin to appear. Repeat applications, at 2 week intervals, may be necessary.	
Flowering Crabapples	Aphids Tent Caterpillars Leafrollers	1/2 lb. (5.3 oz.)	As the insects begin to appear.	<p>Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray.</p> <p>Do not apply more often than 3 times in a growth season at a 4 week interval.</p> <p>Caution: Phytotoxicity has occurred on the following Crabapple varieties: Hopa, Ichonoski, Malusfloribunda, Pink Perfection, Red Wine, and Snow Cloud.</p>

GOLF COURSE AND SOD FARM TURFGRASS

PLANTS	INSECTS	AMOUNT OF ORTHENE TREE & ORNAMENTAL SPRAY PER 1,000 SQ. FT.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Golf Course and Sod Farm Turfgrass	Fall Armyworm Yellowstriped Armyworm Southern Armyworm	½ to 1.2 oz. (1 ⅓ to 3 ¼ lbs. per acre)	As the armyworms appear, a repeat application at 2 week intervals may be necessary.	Apply the specified amount of ORTHENE Tree & Ornamental Spray per 1,000 sq. ft. Use a minimum of 5 gals. water per 1,000 sq. ft. to obtain good coverage. Do not allow livestock to graze treated areas. Do not feed treated grass to livestock.
	Sod Webworm (<i>Crambus</i> spp.)	½ to 1 oz. (1 ⅓ to 2 ¾ lbs. per acre)	As sod webworms begin to appear. Use the higher amount when quick knockdown is needed or with heavy infestation. Repeat application may be necessary. Do not repeat at more than 1 week intervals.	Apply the specified amount of ORTHENE Tree & Ornamental Spray per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage. Do not allow livestock to graze treated areas. Do not feed treated grass to livestock.
	Leafhopper	1 oz. (2 ¾ lbs. per acre)	As the leaf hoppers begin to appear. A repeat application at 1 week intervals may be necessary.	Apply the specified amount of ORTHENE Tree & Ornamental Spray per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage. Do not allow livestock to graze treated areas. Do not feed treated grass to livestock.
	Greenbug (<i>Schizaphis graminum</i>)	½ oz. (1 ⅓ lbs. per acre)	Apply when greenbugs or their damage first appear. Repeat as necessary. Application is not to be repeated at more than 1 week intervals	Apply the specified amount of ORTHENE Tree & Ornamental Spray, use 4 gals. of water per 1,000 sq. ft. to obtain good coverage. Do not mow turfgrass for at least 24 hours after application. Do not allow livestock to graze treated areas. Do not feed treated grass to livestock.

9/13

NON-CROP AREAS

PLANTS	INSECTS	AMOUNT OF ORTHENE TREE & ORNAMENTAL SPRAY	TIME OF APPLICATION	RECOMMENDED APPLICATION
Non- Crop Areas	Imported Fire Ant and Harvester Ants	Mound Drench Method: 1 oz./5 gal.	For best results apply the material in the early morning or late afternoon when the fire ants are active. Applications made during prolonged hot, dry conditions may be ineffective due to the ants being located deep within the mound. Do not treat mounds more than once per season.	Mound Drench Method: Apply 1 gal. dilute mix by sprinkling over a 4 foot diameter circle over the mound.*
		Mound Treatment Dry Method: 1-2 teaspoons per mound		Mound Treatment Dry Method: Evenly distribute 1-2 teaspoons over the mound.*

* Grass in treated areas may be injured.

10/13

OUTDOOR FLORAL CROPS

PLANTS	INSECTS	AMOUNT OF ORTHENE TREE & ORNAMENTAL SPRAY	TIME OF APPLICATION	RECOMMENDED APPLICATION
Daisies Gladiolus Gypsophila Statice Yarrow Strawflower	Thrips	$\frac{2}{3}$ lb. (10.5 oz.)	As thrips begin to appear or at the tight flower bud stage. Repeat applications may be necessary.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Daisies Statice Yarrow	Lygus Bugs	$\frac{2}{3}$ lb. (10.5 oz.)	As lygus bugs begin to appear. Repeat applications may be necessary.	
Roses	Aphids	$\frac{2}{3}$ lb. (10.5 oz.)	As aphids begin to appear.	
Roses Boston Ivy	Japanese Beetle	1 $\frac{1}{3}$ lbs. (21.3 oz.)	As the Japanese beetles begin to appear. Repeat applications, at 2 week intervals, may be necessary.	

11/13

GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS

PLANTS	INSECTS	AMOUNT OF ORTHENE TREE & ORNAMENTAL SPRAY PER 1,000 SQ. FT.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Roses	Leafrollers	2/3 to 1 lb. (10.5 to 16 oz.)	As leafrollers begin to appear. Use the higher amount when the large larvae are present.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Foliage Plants Orchids Anthuriums Cacti Poinsettia	Aphids	1/2 lb. (5.3 oz.)	As aphids begin to appear.	<p>Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray. The addition of a wetting agent may be required on difficult to wet foliage.</p> <p>Caution: Phytotoxicity has occurred on the following foliage plants: Bletchum gibbum, Cissus antarctica, Ficus triangularis, Fittonia verschaffeltii, Maranta leuconeura kerchoveana, Plectranthus australis, Polypodium aureus, Polystichum, Pteris ensiformis, Tolmiea menziesii. Before treating large plantings spray only a few plants and observe 2 weeks for varietal phytotoxicity.</p>
	Mealybugs Thrips Whiteflies	3/4 lb. (10.5 oz)	As the insects begin to appear. A repeat application, at a 2 week interval, may be necessary for control of mealybugs and white flies.	
	Scales (Crawlers)	3/4 lb. (10.5 oz)	As crawlers begin to appear. Repeat applications, at a 2 week or more interval, may be necessary where there is continuous crawler production.	

12/13

GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS (continued)

PLANTS	INSECTS	AMOUNT OF ORTHENE TREE & ORNAMENTAL SPRAY PER 1,000 SQ. FT.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Roses Carnations Chrysanthemums	Aphids Thrips	3/8 lb. (10.5 oz)	As aphids begin to appear. As thrips begin to appear or at the tight flower bud stage. Repeat applications may be necessary.	Apply the specified amount of ORTHENE Tree & Ornamental Spray in 100 gals. water with a hydraulic sprayer as a full coverage spray. Do not apply more often than once every 28 days to Carnations and Chrysanthemums. Caution: Phytotoxicity has occurred in the following Chrysanthemum varieties: Albatross, Bonnie Jean, Dixie, Garland, Gem, Iceberg, Pride, Showoff, Statesman, Tally Ho, Westward Ho, and Wild Honey. Before treating large Chrysanthemum plantings, spray only a few plants and observe two weeks for varietal phytotoxicity.

13/13

Small (20 gals.) Spray Equipment
Preparation of ORTHENE Tree & Ornamental Spray
Mix using a 16 oz. Measuring Cup.

Label Recommendation ORTHENE in 100 gals. Water	Equivalent ORTHENE in 20 gals. Water	Equivalent ORTHENE in 1 gal. Water (Tsp./Gal.)
1/2 lb.	2 1/2 oz.	1
3/4 lb.	5 oz.	2
1 lb.	7 1/2 oz.	3
1 1/4 lbs.	10 oz.	4

*Use in 16 oz. Measuring cup.

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

Keep pesticide in original container.
Do not put concentrate or dilute into food or drink containers.
Store in a cool dry place. Protect from excessive heat.
Do not contaminate food or foodstuffs. Do not store or transport near feed or food.
For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-892-0099.

PESTICIDE DISPOSAL

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

CONTAINER DISPOSAL

ORTHENE Tree & Ornamental Spray: Completely empty canister into application equipment. Do not reuse container. Dispose of empty canister in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.
ORTHENE Tree & Ornamental Spray Packaging: Do not reuse the outer bag. Dispose of the outer bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Copyright© 2002 by Valent U.S.A. Corporation

ORTHENE® - Reg. TM of OMS Investments, Inc. for acephate insecticideManufactured for

Valent USA Corporation
Walnut Creek CA 94596-8025

Made in U.S.A

www.valent.com

EPA Reg. No. 59639-28-AA