

4-415

5-9-2005

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

MAY 9 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Rebecca M. Horton
Consultant and Agent for Bonide Products Inc.
1181/2 E. Main Street, Suite 1
Salem, Virginia 24153-5630

Subject: Label Amendment: Use deletion of poultry and response to Agency's letter of April 23, 2004
Bonide Sevin 4F Agricultural Insecticide (Carbaryl)
EPA Reg. No. 4-415
Submission dated May 17, 2004

Dear Ms. Horton:

The revised labeling referenced to above, submitted in connection with the registration under the Federal Insecticide, fungicide, and Rodenticide Act (FIFRA) as amended, is acceptable with the following comments:

- 1) Many PHIs (Pre-harvest intervals) are missing or incorrect for your listed crops. You must add/correct the PHI values. The PHI values are listed in Appendix A-1 in the carbaryl IRED.
- 2) Change "gold" to told under IF Swallowed.

A stamped copy "accepted with comments" of the label is enclosed for your records.

Please submit two (2) copies of the final printed before shipment. If you have any questions please call me at (703) 308-8328.

Sincerely yours,

A handwritten signature in black ink that reads "Akiva Abramovitch".

Akiva Abramovitch, Ph.D.
Insecticide-Rodenticide Branch
Registration Division (7505C)

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[VERSION A "MASTER" LABEL (AG/COMMERCIAL USE)]

**ACCEPTED
with COMMENTS
In EPA Letter Dated:**

MAY 9 2005

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

4-415



SEVIN® 4F

AGRICULTURAL INSECTICIDE

Optional Marketing Statements:

An Aqueous Suspension Containing 4 Pounds of Carbaryl Insecticide Per Gallon
For Aerial or Ground Application

ACTIVE INGREDIENT:

Carbaryl (CAS # 63-25-2) 42.6%

OTHER INGREDIENTS:..... 57.4%

TOTAL..... 100.0%

Sevin is the registered trademark of Rhone-Poulenc for carbaryl insecticide.

KEEP OUT OF REACH OF CHILDREN

CAUTION



See additional Precautionary Statements on side/back/other panel(s).

NET CONTENTS: _____

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

CAUTION: Harmful if swallowed or inhaled. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing. Wash hands thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment:

Applicators and other handlers must wear:

- A. Long-sleeved shirt and long pants.
- B. Waterproof gloves
- C. Shoes plus socks
- D. Chemical-resistant headgear for overhead exposure.

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:

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center at 1-800-858-7378 for emergency medical treatment information.

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.

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• Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: Carbaryl is a N-methyl carbamate insecticide, which is a cholinesterase inhibitor. Overexposure to this substance may cause toxic signs and symptoms due to stimulation of the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible. Gastric lavage may be used if this product has been swallowed. Carbaryl poisoning may occur rapidly after ingestion and prompt removal of stomach contents is indicated.

Specific treatment consists of parenteral atropine sulfate. Caution should be maintained to prevent overatropinization. Mild cases may be given 1 to 2 mg intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced. Complete recovery from overexposure is to be expected within 24 hours.

Narcotics and other sedatives should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended.

To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes.

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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection

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Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks
- Chemical-resistant headgear for overhead exposure

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restricted reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

PRODUCT INFORMATION:

Sevin 4F is an extremely fine dispersion of Sevin in water. The dilute spray is tenacious and quick setting, giving an adhesive residue to plants on partial drying. The product readily disperses in water to form a spray which may be applied by air or ground.

OBSERVE THE FOLLOWING USE PRECAUTIONS:

Read all label directions before using.

Sevin is unstable under highly alkaline conditions. Do not use with lime, bordeaux, lime-sulfur, casein lime spreaders or other alkaline materials.

Sevin has been used without plant injury with common insecticides and fungicides, except where mixtures have contained a number of pesticides, or under adverse conditions such as high humidity, drought, improper fertilization, etc. Do not combine with emulsifiable liquids, wettable powders, nutrients or adjuvants (or with more than one other pesticide) unless previous use of the mixture has proven compatible and safe to plants. Compatibility can be affected by water in your locality or ingredients in other products. Do not apply if physically incompatible.

PREHARVEST AND GRAZING USE INFORMATION & LIMITATIONS:

Tolerances established under the Federal Food, Drug, and Cosmetic Act permit the sale of crops bearing probable carbaryl residues when this product is used in accordance with label directions. If used as directed, treated forage may be grazed or used as feed for dairy and meat animals without causing illegal residues in meat or milk. This product may be applied up to and including the day of harvest or grazing of forage crops. Application may be made without removing livestock from area being treated.

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Do not apply or allow to drift to areas occupied by unprotected humans or beneficial animals or onto adjoining food, fiber or pasture crops. THE GROWER IS RESPONSIBLE for residues on his crop as well as for damages caused by drift from his property to that of others.

Consult State Agricultural Extension Service or State Agricultural Experiment Stations for additional information, as the timing number of applications will vary with local conditions.

PLANT RESPONSE PRECAUTIONS

To avoid possible injury to tender foliage, do not apply to wet foliage or when rain or high humidity is expected during the next two days.

SEVIN injures Boston ivy, Virginia creeper and maidenhair fern. During early season, it may also injure Virginia and sand pines.

Observe label instructions on apple thinning and on combinations with certain herbicides on soybeans.

INSECT CONTROL

Apply when insects or their damage appears. To maintain control repeat at 7 to 14 day intervals or as necessary. Where a dosage range is indicated, use lower rate on young plants and early instars and higher rate on mature plants, advanced instars and adults. Thorough and uniform spray coverage is essential for effective control.

Apply in sufficient spray volume to obtain thorough coverage. Where maximum washoff resistance is needed, use up to a 1:1 (vol/vol) dilution with water. Do not dilute greater than 1:1 where washoff resistance is desired.

This product does not control spider mites. If spider mites are a problem, use a registered miticide.

FORAGE, FIELD AND VEGETABLE CROPS

Use at least 1 gallon of finished spray per acre for aerial application and at least 3 gallons of finished spray per acre for concentrate ground application. To prepare small volumes of spray, use 1 tablespoonful (½ fluid ounce) per gallon of water where rates of 1 quart per acre or 1 quart per 100 gallons are indicated in the tables below.

Unless otherwise specified, rates are in terms of Sevin 4F per acre in sufficient water for thorough coverage.

Days as pre-harvest interval are indicated in () after crop.

Alfalfa, Clovers:

Blister beetles, Mexican bean beetle. Use 1 to 2 pts. Alfalfa caterpillar, bean leaf beetle, cucumber beetles, green cloverworm, Japanese beetle, leafhoppers, three-cornered alfalfa hopper, thrips, velvet bean caterpillar. Use 2 pts. Armyworms, corn earworm, stink bugs, webworms. Use 2 to 3 pts. Alfalfa weevil – use 2½-3 pts. (Eastern States) and 2 pts. (Western States) for control of alfalfa weevil larvae in the spring. If pre-treatment damage is extensive, cut the alfalfa and make the application to the stubble. Cutworms – use 3 pts.

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Application: To avoid possible injury on tender foliage – do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. (Alfalfa – 3 1/5 pts., Clover – 3 pts.) Do not apply within 3 days of harvest on alfalfa.

Asparagus:

Asparagus beetle on seedlings or spears. Use 2 to 4 pts.

Application: Do not apply more often than once every 7 days. Do not apply within 1 day of harvest. (4 pts.) Post-harvest: Asparagus beetle and apache cicada on ferns or brush growth. Use 4 to 8 pts. (8 pts.)

Beans (Green, Lima, Snap, Cowpeas, Black-eyed Peas):

Mexican bean beetle. Use 1 pt. Bean leaf beetle, cucumber beetles, flea beetles, Japanese beetle, leafhoppers, velvet bean caterpillar, western bean cutworm. Use 2 pts. Armyworms, cutworms, corn earworm, stink bugs, tarnished plant bugs. Use 2 to 3 pts. Cowpea curculio (on cowpeas only), use 4 pts.

Application: Apply 4 applications beginning at first bloom and at 5 day intervals thereafter. Do not apply within 3 days of harvest on cowpeas.

Carrots, Chinese Cabbage, Collards, Dandelion, Endive (Escarole), Garden Beets, Horseradish, Kale, Lettuce, Mustard Greens, Parsley, Parsnips, Radishes, Rutabagas, Salsify, Swiss Chard, Turnips:

Flea beetles, harlequin bug, leafhoppers. Use 1 to 2 pts. Six-spotted leafhopper (aster yellows vector). Use 2 to 3 tsp. on a 7 day schedule. Armyworms, imported cabbage worm, diamond-back moth larvae and loopers, corn earworm, tarnished plant bug, stink bugs. Use 2 to 4 pts.

Application: For optimum control of corn earworm after lettuce heads begin to form, use 4 tps. on a 7 day schedule. Where cabbage looper is the principal problem, use an alternative pesticide that is specifically recommended. For control of small cabbage loopers in commercial plantings after edible portions begin to form, use 2 to 4 pts. in a 5 to 7 day schedule. To avoid possible injury on lettuce, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. Do not apply within 3 days of harvest of head lettuce, garden beets (roots), horseradish, radishes, parsnips, rutabagas, salsify (roots), and turnips (roots). Do not apply within 14 days of harvest of chinese cabbage, collards, dandelion, endive (escarole), garden beets (tops), kale, leaf lettuce, mustard greens, parsley, salsify (tops), spinach, swiss chard and turnips (tops), (4 pts.)

Cole Crops (Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Kohlrabi):

Flea beetles, harlequin bug, use 1 to 2 pts. Armyworms, imported cabbage worms, diamond-back larvae and loopers, corn earworm. Use 2 to 4 pts. Where cabbage looper is the principal problem, use an alternative pesticide that is specifically recommended. For control of small cabbage loopers in commercial plantings after edible portions begin to form, use in a 5 to 7 day schedule. Do not apply within 3 days of harvest. (4 pts.)

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Corn:

Corn earworm, corn rootworm adults, European corn borer, fall armyworm, flea beetles, Japanese beetle, leafhoppers, sap beetles. Use 2 to 4 pts. For larvae in whorl (budworm damage) and foliage feeders, apply to entire plant – repeat as necessary. For insects attacking silks and ears, apply at 2 to 3 day intervals starting when first silks appear and continuing until silks begin to dry. Three or more applications may be required depending on severity of infestation. Timing and good coverage are absolutely essential for effective control. Cutworms – use 4 pts. Application to the tassel region of corn during the pollen shed period will seriously reduce bee populations. (4 pts.)

Cucumbers, Melons, Pumpkins, Squash:

Melonworm, pickleworm, use 1 to 2 pts. Cucumber beetles, flea beetles, leafhoppers, squash bugs, use 2 pts.

Application: Avoid excessive application. To avoid possible injury on tender foliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. (2 pts.)

Forage Grasses and Pasture:

Armyworms, thrips. Use 2 to 3 pts. For thrip control in grasses grown for seed, high spray pressure may help penetrate into root. (3 pts.)

Garden Peas:

Colorado potato beetle, leafhoppers, use 2 pts. For Colorado potato beetle control apply to weeds in fields to help prevent contamination in processed peas. Armyworms, grasshoppers, use 2 to 3 pts. (5 1/5 pts.)

Peanuts:

Blister beetles, use 1 to 2 pts. Alfalfa caterpillar, bean leaf beetle, cucumber beetles, green cloverworm, Japanese beetle, leafhoppers, three-cornered alfalfa hopper, thrips, velvet bean caterpillar, use 2 pts. Armyworms, corn earworm, stink bugs, webworms, use 2 to 3 pts. To avoid possible injury on tender foliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. (3 pts.)

Potatoes, Tomatoes, Eggplants, Peppers:

Colorado potato beetle, flea beetles, leafhoppers. Use 1 to 2 pts. European corn borer, fall armyworm, lace bugs, stink bugs, tarnished plant bugs, tomato fruitworm, tomato hornworm, use 2 to 4 pts. Cutworms (on potato, tomato, eggplant) use 4 pts. (4 pts.)

Soybeans:

Blister beetles, Mexican bean beetle – use 1 to 2 pts. Alfalfa caterpillar, bean leaf beetle, cucumber beetles, green cloverworm, Japanese beetle, leafhoppers, three-cornered alfalfa hopper, thrips, velvet bean caterpillar. Use 2 pts. Armyworms, corn earworm, stink bugs, webworms, use 2 to 3 pts.

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Application: When heavy aphid infestations are present, repeated applications may be necessary for optimum control. To control rosy apple aphids, apply before leaves are curled. For optimum scale control, apply when crawlers are present. Apply at 10 day intervals for apple maggot control. Applications within 30 days after bloom may also provide apple thinning. To avoid this, delay use until at least 30 days after full bloom. May cause foliar injury if used before second cover on York and McIntosh apples. Do not apply within 1 day of harvest.

Apple Thinning:

Many factors influence the degree of apple thinning obtained with Sevin. These include tree age, variety and nutrition, previous crop, pruning, degree of set, bloom, weather and use of other chemical thinners. When any of these favor reduce fruit set, caution should be observed in applying so that excessive thinning and possible yield reduction will not occur. Use 1/2 to 1 pt. on easily-thinned varieties. Apply for full coverage. Use 1 to 2 pts. on hard-to-thin varieties.

Application: Apply in one spray timed between 10 and 25 days after full bloom. Easily-thinned varieties include: Cortland, Grimes, Jonathan, McIntosh, Orleans, Puritan, Red Delicious, Rome Beauty, Winesap, and Yellow Newton. Difficult-to-thin varieties include Baldwin, Ben Davis, Dutchess, Early McIntosh, Golden Delicious, Lady Apple, Northern Spy, Rhode Island Greening, Steele Red, Turley, Wealthy, Yellow Transparent and York Imperial.

CROP	INSECT	Qt/100 Gal.	Preharvest Interval (Days)	SPECIFIC DIRECTIONS
Peaches Apricots Nectarines	Apple pandemis Codling moth Cucumber beetles European earwig Fruittree leafroller Gypsy moth Japanese beetle June beetles Lecanium scales Lesser peachtree borer Olive scale	1	1 (peaches) 3 (apricots & nectarines)	For optimum scale control, apply when crawlers are present. For lesser peachtree borer control, spray limbs and trunk thoroughly at weekly intervals during moth flight.

Application: For optimum scale control, apply when crawlers are present. For lesser peach tree borer control, spray limbs and truck thoroughly, weekly during moth flight. Do not apply within 1 day of harvest of peaches, 3 days of harvest of apricots and nectarines. (16 pts.)

Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries:

Japanese beetle, leafhoppers, leaf rollers, raspberry aphid. Use 4 pts. per acre.

Application: A dilute spray of 100-200 gals. water per acre is suggested. Do not apply within 7 days of harvest. (4 pts.)

Blueberries:

Blueberry maggot, European fruit lecanium, fruitworms (cherry, cranberry), Japanese beetle. Use 3 to 4 pts. per acre. A dilute spray of 125-150 gals. water per acre is suggested.

Application: Apply 3 weeks before harvest and repeat 10 days later or as necessary. (4 pts.)

CROP	INSECT	QUARTS SEVIN/100 GAL.	Preharvest Interval (Days)	SPECIFIC DIRECTIONS
Plums Prunes Cherries	Codling moth Eastern tent caterpillar	Orange tortrix Tussock moth	3/4	
	Black cherry aphid Brown soft scale Cherry fruitworm Cherry maggot European earwig Eyespotted bud moth Forbes scale Fruittree leafroller Green fruitworm Gypsy moth Japanese beetle	Lecanium scales Lesser peachtree borer Mealy plum aphid Oystershell scale Peach twig borer Plum curculio Prune leafhopper Redbanded leafroller Rose chafer San Jose scale Variegated leafroller	1	1

Application: For optimum scale control, apply when crawlers are present. For lesser peachtree borer control, spray limbs and truck thoroughly, weekly during moth flight. Do not apply within 1 day of harvest. (12 pts.)

Cranberries:

Cutworms, fireworms, Japanese beetle, leafhoppers. Use 3 to 6 pts. per acre. A dilute spray of 300 gals. water per acre is suggested.

Application: Apply in late bloom as needed at 7 to 10 day intervals. Do not apply within 1 day of harvest. (6 pts.)

Grapes:

European fruit lecanium, grape leaf folder, grape leafhoppers, grape leaf skeletonizer. Use 2 to 4 pts. per acre. Grape berry moth, Japanese beetle, June beetles, red-banded leaf roller. Use 4 pts. per acre. A dilute spray of 200 gals. water per acre is suggested.

Application: Spray just before first brook leaf folder larvae emerge from rolls and as needed for leafhoppers. (6 pts.)

Strawberries:

Meadow spittlebug, strawberry leaf roller, strawberry weevil. Use 2 to 4 pts. per acre. A dilute spray of 100-200 gals. water per acre is suggested.

ADULT MOSQUITO CONTROL

For dilute-spray ground applications to trees (including shade trees, shelter belts, forests, plantations, barks and recreational areas), ornamentals, woody plants and shrubs, apply the specified dosage per 100 gallons of water. For concentrate-spray ground applications, apply the specified dosage per acre in sufficient spray volume to provide thorough coverage. To prepare small volumes of spray, use 1 tablespoon (1/2 fluid ounce) per gallon of water, where rates of 1 quart are indicated.

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SITE	AMOUNT OF SEVIN®/100 GALS.	SPECIFIC DIRECTIONS
Pastures, Rangelands, Parks, Recreational Areas, Logging Camps, Military Posts and Adjacent Forested Lands or Wastelands	½ to 1 (½ to 1 tablespoonful per gallon)	CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources. OBSERVE BEE CAUTION Treat shrubbery and areas where adult mosquitoes congregate. Treat when adult mosquitoes are active in early mornings or late evenings. Repeat at 7 to 10 day intervals. Use ¼ to ½ quart per 100 gallons in mistblowers, and 1 quart per acre in low pressure ground sprayers.
	25	For residual control in subtropical regions, apply 4 gallons of prepared spray per 2000 square feet of surface area. Repeat in 3 to 6 months or when necessary.

Application: Apply in sufficient spray gallonage to effectively cover area to be treated. For all methods apply in sufficient water to effectively cover area to be treated. By airplane use in 3 to 5 gals. water per acre.

For optimum control apply in early morning or evening when air is calm and adult mosquitoes are active. Use 1 qt. per 100 gals. in hydraulic sprayers, or 2 teaspoons per gallon in hand sprayers for treating backyards or other limited areas. Thoroughly cover lower shade tree foliage, shrubbery, flower beds, grass and shaded areas around buildings where adult mosquitoes congregate. Do not apply to water. Repeat at 7 to 10 day intervals or as necessary. Sevin injures Boston Ivy. Do not use on this ornamental.

LAWNS AND RECREATIONAL AREAS

For control of certain turfgrass pests, apply the recommended rates in sufficient spray volume for thorough coverage and turf thatch penetration. Where a dosage range is indicated, use the higher rate on large pest populations, advanced instars and dense vegetation. Repeat treatment as necessary.

SITE	INSECT	AMOUNT OF SEVIN®		SPECIFIC DIRECTIONS	
		FL. OZ./1000 SQ. FT.	QUARTS ACRE		
Turf grasses	Ants Armyworm Centipedes Chiggers Cutworms Earwigs Essex skipper European chafer Fall armyworm Fiery skipper Grasshoppers Green June beetle grub	June beetles Leafhoppers Lucerne moth Millipedes Mosquitoes (adults) Sowbugs Spittlebugs Springtails Ticks Yellowstriped armyworm	1½ to 3	2 to 4	For Armyworm, Cutworm and Fall Armyworm Control: Do not irrigate treated areas following insecticide application. For Green June Beetle Grub Control: Make applications when grubs are feeding near the soil surface. Water or irrigate turf grasses soon after treatment.

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	Chinch bugs Sod Webworm (lawn moths)	4.4 to 6	6 to 8	<p>For Chinch Bug Control: Treat entire grass area rather than just damaged areas. Irrigation of turf grass area before treatment will aid in penetration of insecticide into turf grass.</p> <p>For Sod Webworm Control: Do not irrigate treated areas following insecticide application.</p>
	Bluegrass billbug European crane fly Fleas White grubs (such as Japanese beetle, Chafer beetle and <i>Phyllophaga</i> spp. larvae)	6	8	<p>For European Crane Fly Control: Treatments should be applied in early spring, April 1 to April 15, or as recommended by local Agricultural Extension Service agents. Water or irrigate turf grasses thoroughly soon after treatment.</p> <p>For White Grub Control: Applications should be made when grubs are feeding near the soil surface, usually during late March through May, or July to early September, or as recommended by local Agricultural Extension Service agents. Water or irrigate turf grasses thoroughly soon after treatment.</p>

IMPORTED FIRE ANT CONTROL

SITE	AMOUNT OF SEVIN®/VOLUME OF WATER	SPECIFIC DIRECTIONS
Lawns, Cemeteries and Recreational Areas (including turf, golf courses, and parks), Pastures Rangeland Forested Lands and Wastelands	1 ½ quarts/100 gallons or 1 ½ tablespoons/gallon	<p>Apply a total of 2 gallons of the diluted solution over the surface of each mound or at least 1 quart per 6 inches of mound diameter using a bucket, can or other appropriate equipment. Thoroughly wet mound and surrounding area to a 4 ft. diameter (12 sq. ft.). Do not disturb mounds prior to treatment. Pour solution from a height of about three feet to give sufficient force to break mound apex and flow into ant tunnels. For best results apply in cool weather, 65-80 degrees F, or in early morning or late evening hours. Repeat application if mound activity resumes after 10 days. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.</p> <p>DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED.</p>

Application: Use garden hose sprayers or pressure type equipment and apply full water volume to insure good penetration of turf. For best results, mow lawn and apply immediately after rain or watering. Repeat in 2 to 3 weeks if necessary.

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TREES AND ORNAMENTALS

For control of certain insects on trees, ornamentals, woody plants and shrubs, apply the recommended amount in 100 gallons of water. Use hand or power-operated sprayer to wet leaves and twigs to the dripping point. Do not use on Boston ivy, Virginia creeper and maidenhair fern. During early season it may also injure Virginia and sand pines.

INSECT			QUARTS OF SEVIN® PER 100 GALS.	SPECIFIC DIRECTIONS
Ants	Hackberry nipplegall maker	Plant bugs	1	<p>Observe plant response precautions.</p> <p>Apply dilute sprays to obtain thorough coverage of upper and lower leaf surfaces. To control scale insects, treat trunks, stems and twigs in addition to plant foliage. For optimum worm control, treat when in early instars. Addition of a sticker may improve residual control.</p> <p>Applications for control of maple leafcutter on sugar maple should be made when larvae are in 2nd instar after mining and as cases are being formed.</p> <p>DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED.</p>
Apple aphid	Holly bud moth	Poinsettia hornworm		
Armyworm	Holly leafminer	Psyllids		
Azalea leafminer	Jackpine budworm	Puss caterpillar		
Bagworms	Japanese beetle	Redhumped oakworm		
Birch leafminer	Jeffrey pine needleminer	Rose aphid		
Blister beetle	June beetles	Rose chafer		
Boxelder bug	Lace bugs	Roseslug		
Boxwood leafminer	Leafhoppers	Saddled prominent		
Browntail moth	Leafrollers	Sawflies (exposed)		
Cankerworms	Locust borer	Scale insects		
Catalpa sphinx	Maple leafcutter	Sowbugs		
Chiggers	Mealybugs	Spiny elm caterpillar		
Cutworms	Mimosa webworm	Springtails		
Cypress tip moth	Nantucket pine tip moth	Spruce needleminer		
Eastern spruce gall adelgid	Oak leafminers	Subtropical pine tip moth		
Elm leaf aphid	Oak leaf skeletonizer	Tent caterpillars		
Elm leaf beetle	Oak moth	Thrips (exposed)		
Elm spanworm	Oakworm complex	Ticks		
Enophyid mites	Oleander caterpillar	Tree hoppers		
European pine shoot moth	Olive ash borer	Walnut caterpillar		
Fall armyworm	Orangestriped oakworm	Webworms		
Flea beetles	Orange tortrix	Western hemlock looper		
Fuchsia gall mite	Periodical cicada	Willow leaf beetles		
Fuller rose beetle	Pine looper	Yellow poplar weevil		
Gall midges	Pine sawfly			
Gall wasps	Pine spittlebug			
Greenstriped mapleworm	Pine spittlebug			
Grasshoppers	Pitch pine tip moth			
Gypsy moth				
Balsam twig aphid	Spruce budworm		1	
Cooley spruce gall adelgid	Western spruce budworm			
Douglas-fir tussock moth			16	<p>Effective for beetle control or as a protective treatment.</p> <p>Apply 1 gallon of spray per 50 square feet of bark prior to beetle flight or host-tree attack. Treat tree trunks from ground level up, until trunk diameter is less than 5 inches. Repeat treatments as needed.</p> <p>Apply approximately 20-30 gallons of spray mixture for each 50 feet of elm tree for thorough coverage of all bark surfaces on trunks, limbs and twigs.</p>
Ips engraver beetles				
Mountain pine beetle				
Roundheaded pine beetle				
Spruce beetle				
Western pine beetle				
Elm bark beetle				

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STORAGE & DISPOSAL

PROHIBITION: Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited. Do not reuse empty container.

STORAGE: Store unused product in original container only. Store in a cool, dry area out of the reach of children and animals. Not for storage in or around the home. Protect from excess heat. It is imperative that all Sevin Flowable formulations be stored and protected from freezing.

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: (2½ gal) Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(All other containers) Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Subsequent planting of food and feed crops in treated soil must be made with crops on this or other carbaryl label(s).

NOTE: This pesticide is to be sold ONLY in this original unbroken package.

DISCLAIMER: Buyer assumes all risks of use, storage or handling not in strict accordance with directions given herewith.

Bonide Products, Inc.

Oriskany, NY 13424

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[VERSION B LABEL (RESIDENTIAL USE)]



LIQUID SEVIN® BRAND CARBARYL INSECTICIDE 4F

Optional Marketing Statements:

Controls Insects of Vegetables, Fruit, Trees, Lawns, Ornamentals and Flowers

CONCENTRATED – Contains over 40% Active Ingredient, Twice as Strong as Other Brands

1 Pt. Makes Up to ____ Gallons of Spray

ACTIVE INGREDIENT:

Carbaryl (CAS # 63-25-2) 42.6%

OTHER INGREDIENTS:..... 57.4%

TOTAL..... 100.0%

Sevin is the registered trademark of Rhone-Poulenc for carbaryl insecticide.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional Precautionary Statements on side/back/other panel(s).

NET CONTENTS: 1 Pint (.47 liter)

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

CAUTION: Harmful if swallowed or inhaled. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing. Wash hands thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment:

Applicators and other handlers must wear:

- A. Long-sleeved shirt and long pants.
- B. Waterproof gloves
- C. Shoes plus socks
- D. Chemical-resistant headgear for overhead exposure.

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:

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center at 1-800-858-7378 for emergency medical treatment information.

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.

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NOTE TO PHYSICIAN: Carbaryl is a N-methyl carbamate insecticide, which is a cholinesterase inhibitor. Overexposure to this substance may cause toxic signs and symptoms due to stimulation of the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible. Gastric lavage may be used if this product has been swallowed. Carbaryl poisoning may occur rapidly after ingestion and prompt removal of stomach contents is indicated.

Specific treatment consists of parenteral atropine sulfate. Caution should be maintained to prevent overatropinization. Mild cases may be given 1 to 2 mg intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced. Complete recovery from overexposure is to be expected within 24 hours.

Narcotics and other sedatives should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended.

To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes.

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.

PRODUCT INFORMATION

Liquid Sevin 4F is an extremely fine dispersion of Sevin in water. The dilute spray is tenacious and quick setting, giving an adhesive residue to plants on partial drying.

OBSERVE THE FOLLOWING USE PRECAUTIONS:

USER SAFETY REQUIREMENTS
<ul style="list-style-type: none"> • Wear long-sleeved shirt, long pants, shoes plus socks and household latex or rubber gloves when mixing and applying this product. • Wear a hat and eye protection when making overhead applications. • Remove clothing immediately if pesticide soaks clothing. Change clothing as soon as possible after use. • Wash the outside of gloves before removing. As with any pesticide product, wash hands thoroughly immediately after handling and before eating, smoking or using the toilet. • Do not allow children or pets to contact treated area until sprays have dried.

Directions

Apply when air is calm to avoid drift and contact with eyes and skin.

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Start spraying at the farthest corner of the treatment area and work backward to avoid contact with wet surfaces. Allow spray to dry in treated areas before reentering.

For trees taller than 10 feet, consider hiring a licensed professional.

Spray thoroughly to wet upper and lower leaf surfaces, stems and branches.

Do not repeat applications more than once a week.

To avoid possible injury on tender foliage do not apply to wet foliage or when rain or high humidity is expected during the next 2 days.

Sevin does not control spider mites. If spider mites are a problem, use a registered miticide.

Treated areas may be reentered immediately after the spray has dried.

BEFORE USING MIX CONTENTS THOROUGHLY BY STIRRING OR SHAKING.

USE THE REQUIRED AMOUNT OF BONIDE LIQUID SEVIN 4F IN A GALLON OF WATER.

DO NOT STORE THE DILUTED SPRAY.

Subsequent planting of food and feed crops in treated soil must be made with crops on this or other carbaryl labels.

INSECT CONTROL

Apply when insects or their damage appears. To maintain control repeat at 7 to 14 day intervals or as necessary. Where a dosage range is indicated, use lower rate on young plants and early instars and higher rate on mature plants, advanced instars and adults. Thorough and uniform spray coverage is essential for effective control.

Bonide Liquid Sevin 4F can be used on the following plants to control the insects listed:

FRUIT: Apples, Pears, Apricots, Nectarines, Peaches, Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries, Blueberries, Cherries, Plums, Prunes, Grapes, Strawberries.

VEGETABLES: Asparagus, Beans, Carrots, Chinese Cabbage, Collards, Dandelion, Endive (Escarole), Garden Beets, Horseradish, Kale, Lettuce, Mustard Greens, Parsley, Parsnips, Radishes, Rutabagas, Salsify, Swiss Chard, Turnips, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Kohlrabi, Corn, Cucumbers, Melons, Pumpkins, Squash, Peas, Potatoes, Tomatoes, Eggplants, Peppers.

LAWNS, ORNAMENTAL PLANTS, FLOWERS, SHRUBS AND SHADE TREES: Rose, Carnation, Gladiolus, Zinnia, Chrysanthemum, Lilac, Arborvitae, Juniper, Hydrangea, Azalea, Elm, Maple, Oak, Dogwood, Birch and Pines

FRUIT

APPLES, PEARS: East of the Rocky Mountains: Apple mealybug, codling moth, green apple aphid, white apple leafhopper - Use 1 tsp. Aphids (rosy apple, woolly apple), apple maggot bagworm, eastern tent caterpillar, European apple sawfly, eyespotted bud moth, fruittree leafhopper, green fruitworm, Japanese beetle, mites (apple rust, pear leaf blister, pear rust), pear psylla, periodical cicadas, plum curculio, redbanded leafroller, scales (forbes, lecanium, oystershell, San Jose), tarnished plant bug, tentiform leafminers - Use 2 tsp. Make first

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application when insects appear or damage is observed. Repeat as necessary. When heavy aphid infestations are present, repeated applications may be necessary for optimum control. To control rosy apple aphids, apply before leaves are curled. For optimum scale control, apply when crawlers are present. Apply at 10 day intervals for apple maggot control. Applications within 30 days after full bloom may also provide apple thinning. To avoid this, delay use until at least 30 days after bloom. May cause foliar injury if used before second cover on York and Macintosh apples. Do not apply within 1 day of harvest.

APRICOTS, NECTARINES, PEACHES: Codling moth, cucumber beetles, European earwig, fruittree leafroller, Japanese beetle, June beetle, lesser peachtree borer, periodical cicada, plum curculio, redbanded leafroller, scales (lecanium, olive, San Jose), tarnished plant bug, tussock moth. Use 2 tsp. For optimum scale control, apply when crawlers are present. For lesser peachtree borer control, spray limbs and trunk thoroughly, weekly during moth flight. Do not apply within 1 day of harvest of peaches, 3 days of harvest of apricots and nectarines.

BLACKBERRIES, BOYSENBERRIES, DEWBERRIES, LOGANBERRIES, RASPBERRIES: Japanese beetle, leafhopper, leafrollers, raspberry aphid. Use 4 tsp. Do not apply within 7 days of harvest.

BLUEBERRIES: Blueberry maggot, European fruit lecanium, fruitworms (cherry, cranberry), Japanese beetle. Use 3 to 4 tsp. Apply 3 weeks before harvest and repeat 10 days later or as necessary.

CHERRIES, PLUMS, PRUNES: Aphids (black cherry, mealy plum), cherry fruitworm, eyespotted bud moth, fruittree leafroller, Japanese beetle, lesser peachtree borer, peach twig borer, plum curculio, prune leafhopper, redbanded leafroller, scales (brown, soft, forbes, lecanium, oystershell, San Jose). Use 2 tsp. Codling moth, eastern tent caterpillar, orange tortrix, tussock moth. Use 1½ tsp. For optimum scale control, apply when crawlers are present. For lesser peachtree borer control. Spray limbs and trunk thoroughly, weekly during moth flight. Do not apply within 1 day of harvest.

GRAPES: European fruit lecanium, grape leaf folder, grape leafhoppers, grape leaf skeletonizer. Use 2 to 4 tsp. Grape berry moth, Japanese beetle, June beetles, redbanded leafroller. Use 4 tsp. Spray just before first brood leaf folder larvae emerge from rolls and as needed for leafhoppers.

STRAWBERRIES: Meadow spittlebug, strawberry leafroller, strawberry weevil. Use 2 to 4 tsp.

VEGETABLE CROPS

Where a dosage range is indicated on vegetables, use lower rate on young plants, higher rate on mature plants. Apply when insects or their damage appear and repeat at 7 to 14 day intervals or as necessary.

ASPARAGUS: Asparagus beetle on seedlings or spears. Use 2 to 4 tsp. Do not apply within 1 day of harvest. Post-harvest: Asparagus beetle and apache cicada on ferns or brush growth. Use 4 to 8 tsp.

BEANS (GREEN, LIMA, SNAP): Mexican bean beetle. Use 1 tsp. Bean leaf beetle, cucumber beetles, flea beetle, Japanese beetle, leafhoppers, velvet bean caterpillar, western bean cutworm. Use 2 tsp. Armyworms, cutworms, corn earworms, stink bugs, tarnished plant bugs. Use 2 to 3 tsp.

CARROTS, CHINESE CABBAGE, COLLARDS, DANDELION, ENDIVE (ESCAROLE), GARDEN BEETS, HORSERADISH, KALE, LETTUCE, MUSTARD GREENS, PARSLEY, PARSNIPS, RADISHES, RUTABAGAS, SALSIFY, SWISS CHARD,

TURNIPS: Flea beetles, harlequin bug, leafhoppers. Use 1 to 2 tsp. Six-spotted leafhopper (aster yellows vector). Use 2 to 3 tsp. on a 7 day schedule. Armyworms, imported cabbage worm, diamondback moth larvae and loopers, corn earworm, tarnished plant bug, stink bugs. Use 2 to 4 tsp. For optimum control of corn earworm after lettuce heads begin to form, use 4 tsp. in a 7 day schedule. To avoid possible injury to lettuce, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. Do not apply within 3 days of harvest of head lettuce, garden beets (roots), horseradish, radishes, parsnips, rutabagas, salsify (roots), and turnips (roots). Do not apply within 14 days of harvest of chinese cabbage, collards, dandelion, endive (escarole), garden beets (tops), kale, leaf lettuce, mustard greens, parsley, salsify (tops), spinach, swiss chard and turnips (tops).

COLE CROPS (BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, KOHLRABI): Flea beetles, harlequin bug. Use 1 to 2 tsp. Armyworms, imported cabbage worms, diamondback larvae and loopers, corn earworm. Use 2 to 4 tsp.

CORN: Corn earworms, corn rootworm adults, European corn borer, fall armyworm, flea beetles, Japanese beetle, leafhoppers, sap beetles. Use 2 to 4 tsp. For larvae in whorl (budworm damage) and foliage feeders, apply to entire plant – repeat as necessary. For insects attacking silks and ears, apply at 7 day intervals starting when first silks appear and continuing until silks begin to dry. Three or more applications may be required depending on severity of infestation. Timing and good coverage are absolutely essential for effective control. Cutworms – use 4 tsp. Application to the tassle region of corn during the pollen shed period will seriously reduce bee populations.

CUCUMBERS, MELONS, PUMPKINS, SQUASH: Melonworm, pickleworm. Use 1 to 2 tsp. Cucumber beetles, flea beetles, leafhoppers, squash bugs. Use 2 tsp. Avoid excessive application. To avoid possible injury on tender foliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days.

GARDEN PEAS: Colorado potato beetle, leafhoppers, use 2 tsp. Armyworms, grasshoppers. Use 2 to 3 tsp.

POTATOES, TOMATOES, EGGPLANTS, PEPPERS: Colorado potato beetle, flea beetles, leafhoppers. Use 1 to 2 tsp. European corn borer, fall armyworm, lace bugs, stink bugs, tarnished plant bugs, tomato fruitworm, tomato hornworm. Use 2 to 4 tsp. Cutworms (on potato, tomato, eggplant). Use 4 tsp.

SPECIALTY USES

LAWN:

ANTS, EARWIGS, FALL ARMYWORMS, FLEAS, LEAFHOPPERS, MOSQUITOES, MILLIPEDES: Apply 1½ oz. in 15 to 20 gals. water for each 500 sq. ft. of established lawn area. Chinch Bugs and Sod Webworms (lawn moths) – apply 2 to 3 oz. in 15 to 20 gals. water for each 500 sq. ft. of established lawn area. Use garden hose sprayers or pressure type equipment and apply full water volume to insure good penetration of turf. For best results, mow lawn and apply immediately after rain or watering. Repeat in 2 to 3 weeks if necessary.

ORNAMENTALS, TREES, WOODY PLANTS AND SHRUBS: (Do not use on Boston Ivy, Virginia creeper and maiden hair fern) – Apply 2 tsp. per gal. water to obtain thorough coverage of upper and lower leaf surfaces. To control scale insects, treat trunks, stems and twigs in addition to plant foliage. For optimum worm control, treat when in early instars. Addition of a sticker may improve residual control. To control: apple aphid, bagworm, birch leaf miner, blister beetles, boxelder bug, boxwood leaf miner, elm leaf aphid, elm leaf beetle, flea beetles,

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gypsy moth, Japanese beetles, June beetles, lace bugs, leafhoppers, leafrollers, mealybugs, mimosa webworm, oak leafminers, orange tortrix, periodical cicada, plant bugs, puss caterpillars, psyllids, rose aphid, rose slug, scale insects, tent caterpillars, thrips (exposed), willow leaf beetles.

STORAGE AND DISPOSAL

PROHIBITION: Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited. Do not reuse empty container.

Storage: Store and transport in an upright position. Store in a cool dry area inaccessible to children or pets.

Disposal: *If empty* – Do not reuse this container. Place in trash or offer for recycling if available. *If partly filled* – Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

NOTE: This pesticide is to be sold ONLY in this original, unbroken package.

DISCLAIMER: Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herewith.

For information on pesticide products (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

Manufactured by:

Bonide Products, Inc.

Oriskany, NY 13424