67702-2-4_Bonide Liquid Copper Fungicide Concentrate_20181022_112_4_.pdf

LIQUID

COPPER FUNGICIDE

Concentrate

TRUSTED SINCE 1926
BONIDE®

Controls listed plant diseases

using low concentrations of copper

For roses, listed fruits & listed vegetables

ACTIVE INGREDIENT:
Copper Octanoate (Copper Soap)
CAS Reg. No. 20543-04-8..... 10.00%
OTHER INGREDIENTS:.....90.00%
TOTAL:..... 100.00%
Metallic copper equivalent..... 1.8%
EPA Est. No. 4-NY-1 EPA Reg. No. 67702-2-4

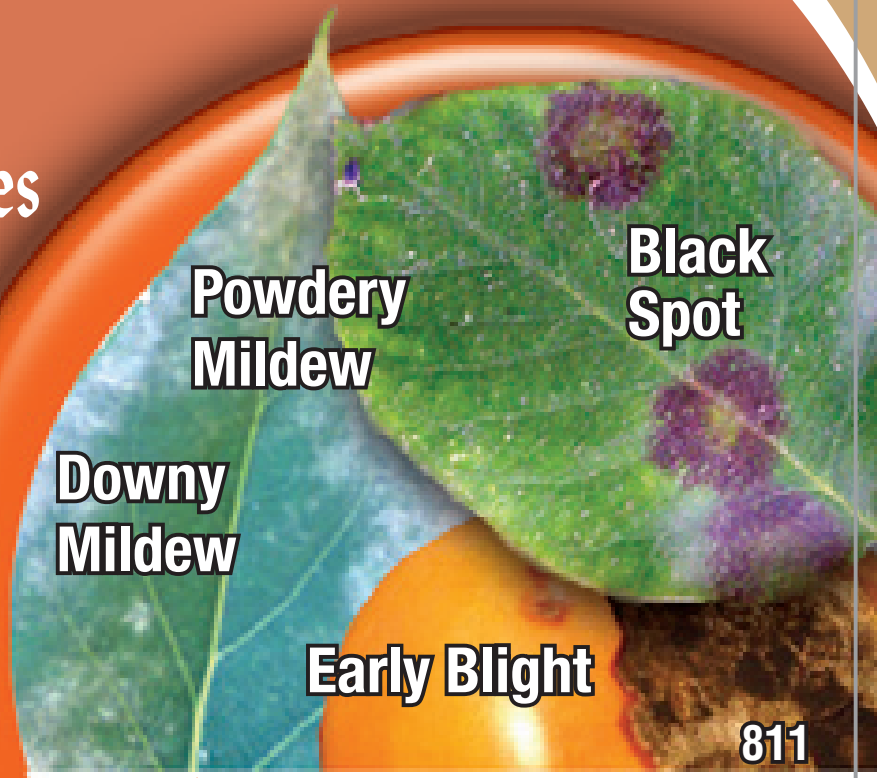
Intended For Residential Use Only

Keep Out Of Reach Of Children

CAUTION (See back booklet for additional Precautionary Statements and First Aid)

Net Contents 16 FL OZ (473 ML)

56540218



FOR ORGANIC GARDENING

Liquid Copper Fungicide Concentrate

- ✓ **Where to use: listed vegetables, fruits, nuts, herbs, ornamentals and turf**
- ✓ **Can be used up to the day of harvest**
- ✓ **Controls powdery mildew, downy mildew, black spot and rust**
- ✓ **Controls peach leaf curl**

Contains Cueva™ Fungicide Concentrate, a trademark of W. Neudorff GmbH KG

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NEUDORFF

BN

Distributed by:
Bonide Products, Inc.
6301 Sutliff Road
Oriskany, NY 13424

Pint

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DIRECTIONS FOR USE

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

Read and follow all applicable directions and precautions on this label before using.

Do not allow adults, children or pets to enter the treated area until sprays have dried. Do not apply this product in a way that will contact adults, children or pets, either directly or through drift.

APPLICATION DIRECTIONS

Shake well before use. Most conventional liquid pesticide plant sprayers can be used to apply this product to plants. Mix 0.5 to 2.0 fluid ounces of this product in a gallon of water. Unless otherwise stated in specific application notes, apply 1.1 to 2.3 gallons of diluted spray per 1,000 ft^2.

For best control, start spraying before the disease is visible or when disease is first visible on the plant. Spray all plant parts thoroughly (top and bottom of leaves), and unless otherwise directed in the crop table, repeat every 7 to 10 days. Use the higher rate to control diseases that may go dormant and overwinter. See application notes for the specific crop application interval. If possible, time applications so that at least 12 hours of dry weather follows application. Reapply after rain, following crop specific application interval.

Hydroponic use: Apply as soon as disease appears, or as a preventive spray 2 weeks before disease normally appears. Apply as a foliar spray only. Do not apply directly to the water in hydroponic gardening systems. Discarded water from hydroponic growing systems may be used in greenhouses and to water indoor and outdoor container plants and garden areas. Water from these systems is prohibited from being discarded directly into a water source.

APPLICATION DIRECTIONS Cont.

When **powdery mildew** presence is expected on a plant, spray the plants at the minimum application interval during the first 2 weeks after emergence.

To control **downy mildews, leaf and fruit spots, blights, and rust,** begin treatment 2 weeks before disease normally appears or when weather forecasts predict a long period of wet weather. Alternatively, begin treatment when disease first appears, and repeat as long as needed.

To prevent **fruit rots**, apply at the start of flowering and unless otherwise directed in the crop table, repeat every 7 to 10 days until harvest. Fungicidal sprays are especially warranted when weather forecasts predict a long period of wet weather.

ORNAMENTALS: DISEASES CONTROLLED, LISTED BY PLANT

Ornamental Plant	Common Name	Diseases Controlled
Aechmea fasciata	Urn plant, bromeliad	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight
Aeschynanthus pulcher	Lipstick vine	Botrytis blight, Leaf spot (fungal)
Aglaonema species	Chinese evergreen	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight, Leaf spot (fungal), Rhizoctonia blight, Soft rot
Anthurium species	Tailflower	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight, Leaf spot (fungal), Rhizoctonia blight, Soft rot

ORNAMENTALS: DISEASES CONTROLLED, LISTED BY PLANT Cont.

Aphelandra squarrosa	Zebra plant	Botrytis blight, Leaf spot (fungal), Rhizoctonia blight
Araucaria heterophylla	Norfolk Island pine	Colletotrichum needle blight
Arecastrum romazoffianum	Queen palm	Exosporium leaf spot, Phytophthora bud rot
Asplenium nidus	Bird's nest fern	Bacterial leaf spot and blight
Brassaia actinophylla	Schefflera	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight, Leaf spot (fungal) Rhizoctonia blight
Caladium species	Caladium	Bacterial leaf spot and blight, Rhizoctonia blight
Calathea species	Rattlesnake plant	Bacterial leaf spot and blight, Leaf spot (fungal)
Caryota mitis	Fishtail palm	Bacterial leaf spot and blight, Leaf spot (fungal)
Chamaedorea species	various palms	Leaf spot
Chrysalidocarpus lutescens	Areca palm	Leaf spot
Cissus species	Grape ivy	Anthracnose leaf and fruit spot, Botrytis blight, Downy mildew, Powdery mildew, Rhizoctonia blight
Codiaeum variegatum	Croton	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight

ORNAMENTALS: DISEASES CONTROLLED, LISTED BY PLANT Cont.

Ornamental Plant	Common Name	Diseases Controlled
Cordyline terminalis	Ti plant	Anthracnose leaf and fruit spot, Leaf spot (fungal)
Chryptanthus species	Bromeliad, earthstar	Anthracnose leaf and fruit spot
Dieffenbachia species	Dieffenbachia	Bacterial leaf spot and blight, Leaf spot (fungal) Rhizoctonia blight
Dracaena species	Dracaena, Corn plant	Bacterial leaf spot and blight, Botrytis blight, Leaf spot (fungal)
Epipremnum aureum	Pothos, Devil's ivy	Bacterial leaf spot and blight, Rhizoctonia blight
Euphorbia milii	Euphorbia	Rhizoctonia blight
Fatsia japonica	Japanese fatsia	Bacterial leaf spot and blight, Leaf spot (fungal) Rhizoctonia blight
Ficus benjamina	Weeping fig	Leaf spot (fungal)
Ficus elastica	India-rubber tree	Leaf spot (fungal), Botrytis blight
Fittonia verschaffeltii	Nerve plant	Rhizoctonia blight
Hedra helix	English ivy	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight, Botrytis blight, Leaf spot (fungal), Rhizoctonia blight

ORNAMENTALS: DISEASES CONTROLLED, LISTED BY PLANT Cont.

Ornamental Plant	Common Name	Diseases Controlled
Hoya carnosa	Wax plant	Botrytis blight, Leaf spot (fungal), Rhizoctonia blight
Maranta leuconeura	Prayer plant	Leaf spot (fungal)
Monstera deliciosa	Swiss cheese plant	Bacterial leaf spot and blight, Anthracnose leaf and fruit spot, Rhizoctonia blight, Soft rot
Nephrolepis exaltata	Boston fern	Bacterial leaf spot and blight, Botrytis blight, Rhizoctonia blight
Peperomia species	Peperomia	Leaf spot (fungal), Rhizoctonia blight
Philodendron species	Philodendron	Anthracnose leaf and fruit spot, Botrytis blight, Leaf spot (fungal)
Pilea species	Aluminum plant	Bacterial leaf spot and blight, Anthracnose leaf and fruit spot, Leaf spot (fungal), Rhizoctonia blight
Platycerium bifurcatum	Staghorn fern	Bacterial leaf spot and blight, Rhizoctonia blight
Polyscias species	Aralia	Anthracnose leaf and fruit spot, Bacterial leaf spot and blight, Leaf spot (fungal)

ORNAMENTALS: DISEASES CONTROLLED, LISTED BY PLANT Cont.

Ornamental Plant	Common Name	Diseases Controlled
Rhapis species	Ladyfinger palm	Leaf spot (fungal)
Rhoeo spathacea	Oyster plant	Leaf spot (fungal)
Saintpaulia ionantha	African violet	Bacterial leaf spot and blight, Botrytis blight, Leaf spot (fungal), Powdery mildew
Sansevieria triafasciata	Snake plant	Bacterial leaf spot and blight, Leaf spot (fungal)
Schefflera arboricola	Dwarf Schefflera	Bacterial leaf spot and blight, Leaf spot (fungal)
Schlumbergera species	Cactus	Leaf spot (fungal)
Sedum species	Sedum	Leaf spot (fungal)
Spathiphyllum species	Spathe flower	Leaf spot (fungal), Rhizoctonia blight
Syngonium podophyllium	Nephthytis	Bacterial leaf spot and blight, Leaf spot (fungal), Rhizoctonia blight
Yucca species	yucca	Leaf spot (fungal)

ORNAMENTALS AND TURF

Do not use more than 391 fl. oz. of product/1000 sq. ft. per year on turf or more than 373 fl. oz. of product/1000 sq. ft. per year on ornamentals. This product may cause some copper toxicity on some plant species. Before spraying a specific plant species consult your State Experiment Station or make a test spray.

Crop	Diseases Controlled	Application Notes
Pine	Needle blight	Spray until needles are thoroughly wet with spray. Apply when new needles are just emerging.
Rose and Ornamental Shrubs (Such as; Crape Myrtle, Forsythia, Hydrangea, Willow, Mock-Orange, Deutzia, Pyracantha, Japanese quince, Abelia, Summersweet)	Blackspot, Downy mildew, Gray mold (Botrytis), Leafspots, Powdery mildew, Rust	May cause copper toxicity on some rose varieties. Copper toxicity appears as purple spots. For Black spot, mix 1.44 fl. ozs. of this product per gallon of water. For Powdery Mildew, mix 1.08 fl. ozs. of this product per gallon of water. In damp cool conditions (below 60°F), phytotoxicity is likely to occur.
Sycamore	Anthracnose leaf spot	Make first application just before buds begin to swell, and repeat twice, at 7-day intervals.

ORNAMENTALS AND TURF Cont.

Crop	Diseases Controlled	Application Notes
Turf	Ascochyta leaf blight, Cercospora leaf spots, Dollar spot	Mix 1.5 to 6 fl. oz. with 2.5 gallons of water and apply to 1,000 sq. ft. For best control, begin treatment 2 weeks before disease normally appears. Alternatively, begin treatment when disease first appears, and repeat at 10 day intervals for as long as needed. To reduce Ascochyta leaf blight mow less frequently, only as necessary to maintain recommended height. Water before noon to allow grass to dry. Water thoroughly only as required to avoid moisture stress. Apply this product when disease first appears, and repeat at 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.

ORNAMENTALS AND TURF Cont.

Crop	Diseases Controlled	Application Notes
Turf (continued)	Rust	To reduce rust mow frequently to reduce rust spore production. Water and fertilize lawn as required to avoid moisture and nutrient stress. Water before noon to allow grass to dry. Apply this product when disease first appears, and repeat at 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.
	Algae	For best control, begin treatment 2 weeks before disease normally appears. Alternatively, begin treatment when disease first appears, and repeat at 10 day intervals for as long as needed.

FRUITS AND VEGETABLES

Crop	Diseases Controlled	Maximum Annual Rate (fl.oz. product/1000 sq. ft.)	Application Notes
Bean, Pea	Anthracnose leaf and fruit spot, Ascochyta leaf and pod spot, Bacterial blights (halo, common and brown spot), Downy mildew, Gray mold (Botrytis), Powdery mildew, White mold (Sclerotinia)	For beans: 88 fl. oz. For peas: 73 fl. oz.	Repeat application every 7-10 days if needed.
Beet, Sugar beet, Chard, Spinach	Cercospora leaf spot, Downy mildew, White rust, Powdery Mildew, Anthracnose blue mold	For beets: 146 fl. oz. For spinach and chard: 73 fl. oz.	Repeat application every 7-10 days if needed.
Carrots	Alternaria leaf blight, Bacterial leaf blight, Cercospora leaf blight	93 fl. oz.	Repeat application every 7-10 days if needed.
Celery and Celeriac	Bacterial leaf spot, Cercospora (early) blight, Septoria (late) blight	98 fl. oz.	Repeat application every 7-10 days if needed.

FRUITS AND VEGETABLES Cont.

Crop	Diseases Controlled	Maximum Annual Rate (fl. oz. product/1000 sq. ft.)	Application Notes
Citrus (Grapefruit, Lemon, Lime, Kumquat, Orange, Pummelo, Tangerine)	Melanose spot, greasy spot, citrus scab, Alternaria brown spot, citrus canker, *Phytophthora* brown rot, and *Septoria*	235 fl. oz.	Repeat application every 14 days if needed. May cause phytotoxicity if conditions are conductive, when mixed with other products, or when applied to citrus seedlings grown in greenhouses or shadehouses.
Corn	Alternaria blight, Anthracnose, Ascochyta leaf and pod spot, Bacterial blights (halo, common and brown spot), Bacterial leaf spot, Downy mildew, Gray mold, Southern leaf blight	78 fl. oz.	Repeat application every 7-10 days if needed.

FRUITS AND VEGETABLES Cont.			
Crop	**Diseases Controlled**	**Maximum Annual Rate (fl. oz. product/1000 sq. ft.)**	**Application Notes**
Corn (cont.)	Cercospora leaf blight, Common or Southern Rust, Gray Leaf Spot, Stewart's Wilt*, Bacterial Stalk Rot*	78 fl. oz.	Repeat application every 7-10 days if needed.
Crucifer Crops (Bok Choy, Broccoli, Brussels sprouts, Canola, Cauliflower, Cabbage, Kale, Kohlrabi, Mustard, Pak-Choi, Rape, Rutabaga, Turnip)	Alternaria blight, Bacterial leaf spot, Downy mildew, Powdery mildew, White mold (Sclerotinia) Black rot	49 fl. oz.	Repeat application every 7-10 days if needed.

FRUITS AND VEGETABLES Cont.

Crop	Diseases Controlled	Maximum Annual Rate (fl. oz. product/1000 sq. ft.)	Application Notes
Cucurbits (Cucumbers, Honeydew, Muskmelon, Watermelon, Cantaloupe, Melons, Squash, Pumpkin, Zucchini)	Alternaria blight, Angular leaf spot, Anthracnose leaf and fruit spot, Downy mildew, Gray mold, Scab, Ulocladium leaf spot, Powdery mildew, Watermelon bacterial fruit blotch, Fruit blotch (suppression)	97 fl. oz.	For cucumbers grown in a greenhouse, apply every 5 days in the first 2 weeks after emergence, then reapply every 7 days.
Currant and Gooseberry	Anthracnose leaf and fruit spot, Phyllosticta, Septoria leaf spots, Powdery mildew	298 fl. oz.	Repeat application every 7-10 days if needed.
Ginseng	Alternaria blight, Botrytis blight, Phytophthora, Powdery mildew	97 fl. oz.	Repeat application every 7-10 days if needed.

FRUITS AND VEGETABLES Cont.

Crop	Diseases Controlled	Maximum Annual Rate (fl. oz. product/1000 sq. ft.)	Application Notes
Herbs (basil, chives, coriander, dill, lavender, mint, parsley, rosemary)	Anthracnose, Alternaria blight, Bacterial Blight, Botrytis, Downy mildew, Leaf scorch, Leaf spot, Rhizoctonia Leaf blight	Dill: 73 fl. oz. Parsley: 37 fl. oz. Other listed Herbs: 49 fl. oz.	Repeat applications every 10-14 days if needed.
Grapes	Downy mildew, Black rot, Phomopsis Cane and Leaf Spot, Powdery mildew, Gray mold (Botrytis), ripe rot*	373 fl. oz.	Repeat application every 7-10 days if needed. Do not mix product with lime. Certain Vinifera and French Hybrid varieties may be sensitive to copper sprays resulting in marginal leaf burn. Before spraying these varieties, consult your State Experiment Station or make test sprays.

FRUITS AND VEGETABLES Cont.			
Crop	**Diseases Controlled**	**Maximum Annual Rate (fl. oz. product/1000 sq. ft.)**	**Application Notes**
Hop	Anthracnose leaf and fruit spot, Cercospora leaf spot, Downy mildew, Powdery mildew	49 fl. oz.	Repeat applications every 10 days if needed.
Lettuce, Chicory, Endive	Downy mildew, Septoria leaf spot, Powdery mildew, Bacterial soft rot and bottom rot	149 fl. oz.	Repeat application every 10 days if needed. Use lower rate when disease pressure is low or on copper sensitive varieties of lettuce.
Onion, Garlic, Leek, shallot	Botrytis leaf blight, Downy mildew, Neck rot, Bacterial soft rot, Purple blotch	112 fl. oz.	Repeat applications every 7-10 days if needed.

FRUITS AND VEGETABLES Cont.			
Crop	**Diseases Controlled**	**Maximum Annual Rate (fl. oz. product/1000 sq. ft.)**	**Application Notes**
Peanuts	Sclerotinia blight, Leaf spots (early and late), web blotch	88 fl. oz.	Repeat application every 7-10 days if needed.
Pome Fruits (Apples, Pears, Quince)	Anthracnose, Cedar Apple Rust, Fireblight, Scab, Sooty Blotch, Flyspeck, Quince Rust, Blossom Blast, European Canker, Collar Rot, Crown Rot	298 fl. oz.	For fireblight apply in the dormant period, during bloom, or as in-season cover spray. Do not exceed one application during the fall, late dormant period. Do not exceed one application between silver tip and green tip growth stages. May cause russeting of susceptible apple varieties. Do not exceed 1 gallon of product per 100 gallons of water. Repeat application every 7-10 days during bloom and growing season if needed.

FRUITS AND VEGETABLES Cont.			
Crop	**Diseases Controlled**	**Maximum Annual Rate (fl. oz. product/1000 sq. ft.)**	**Application Notes**
Blackberry, Blueberry, Raspberry	Gray mold (Botrytis), Mucor fruit rot, Rhizopus fruit rot, Anthracnose, Cane Spot, Leaf Spot, Pseudomonas Blight, Purple Blotch, Yellow Rust, Bacterial Canker	Blueberry:156 fl. oz. Blackberry and Raspberry: 186 fl. oz.	Apply at the start of flowering and continue every 7-10 days until harvest.
Stone Fruit Trees (Almond, Apricot, Cherry, Nectarine, Peach, Plum)	Bacterial canker (Pseudomonas syringae), Monolinia brown rot and blossom blight, leaf and fruit spot, Bacterial leaf spot, Bacterial Blast (*Pseudomonas*), black knot* (plum only)	335 fl. oz.	For bacterial canker, apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays. In the fall spray again at 10 and 80% leaf fall. For brown rot blossom blight,

FRUITS AND VEGETABLES Cont.			
Crop	**Diseases Controlled**	**Maximum Annual Rate (fl. oz. product/1000 sq. ft.)**	**Application Notes**
Stone Fruit Trees (Almond, Apricot, Cherry, Nectarine, Peach, Plum) (continued)		335 fl. oz.	apply full cover spray at delayed dormant (bud swell), popcorn, full bloom and petal fall stages. Repeat application every 7-10 days if needed
	Anthracnose leaf and fruit spot, Coryneum blight, Peach leaf curl	335 fl. oz.	Apply as a dormant spray in late fall to before bud break. Repeat application every 7-10 days if needed.
Strawberry	Angular leaf spot, Leaf scorch, Mycosphaerella leaf spot, Phomopsis leaf blight, Powdery mildew, Septoria leaf spots	152 fl. oz.	Spray 1 month after planting (or before flowering on established plants). Repeat application every 7-10 days if needed.

FRUITS AND VEGETABLES Cont.			
Crop	**Diseases Controlled**	**Maximum Annual Rate (fl. oz. product/1000 sq. ft.)**	**Application Notes**
Strawberry (continued)	Anthracnose fruit rot, Gray mold (Botrytis)	152 fl. oz.	Apply at the start of flowering repeat application every 7-10 days until harvest.
Tobacco	Blue Mold (Downy Mildew)	149 fl. oz.	Repeat application every 10 days if needed.
Tomato, Potato, Eggplant, Pepper	Anthracnose leaf and fruit spot, Bacterial speck, Bacterial spot, Cercospora leaf spot, Early blight, Gray mold, Late blight, Leaf mold, Septoria leaf spot	Tomato: 149 fl. oz. Potato: 466 fl. oz. Eggplant: 147 fl. oz. Pepper: 221 fl. oz.	Repeat application every 7-10 days if needed. Use the 2 fl. oz. per gallon of water dilution rate for late blight.
Walnut	Blight	596 fl. oz.	Repeat application every 7-10 days if needed.

FRUITS AND VEGETABLES Cont.			
Crop	**Diseases Controlled**	**Maximum Annual Rate (fl. oz. product/1000 sq. ft.)**	**Application Notes**
Avocado	Anthracnose, blotch, Scab	353 fl. oz.	Apply when blossom buds open. Repeat application every 14-30 days if needed.

***Not registered for use in California**

STORAGE AND DISPOSAL

Pesticide Storage: Store in a secure place, away from open fire or flame. Keep container closed and reseal after use. Product may be damaged by freezing. Do not store product below 4˚C. If spilled, use absorbent materials and dispose of in an approved manner.

Pesticide Disposal and Container Handling: Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

FIRST AID	
IF IN EYES	• 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	• 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 SWALLOWED	• Call a 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 by a poison control center or doctor. • Do not give anything to an unconscious person
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

NOTICE TO BUYER - Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. To the extent consistent with applicable law, buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.

LIQUID MEASURE	DRY MEASURE
3 teaspoons = 1 Tablespoon	28.35 grams = 1 ounce
2 Tablespoons = 1 fluid ounce	16 ounces = 1 pound
8 fluid ounces = 1 cup	2.2 pounds = 1 kilogram
16 fluid ounces = 2 cups = 1 pint	
32 fluid ounces = 2 pints = 1 quart	
128 fluid ounces = 8 pints = 4 quarts = 1 gallon	

KEEP OUT OF REACH OF CHILDREN

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Questions, Concerns, or Comments?

Lift & Peel