

H-14-72
654-85

(Front Panel)

FEDERAL CHLORDANE

EIGHT POUND EMULSIFIABLE CONCENTRATE

Contains 8 pounds of chlordane per gallon

ACTIVE INGREDIENTS

Technical Chlordane*..... 73.0%
Petroleum Distillate..... 22.0%

INERT INGREDIENTS..... 5.0%
100.0%

*Equivalent to 48.2% octachloro-4,7-methanotetrahydroindane
and 29.2% related compounds.
EPA Registration No. 654-85

WARNING: Keep out of reach of children. See side panel for additional
warnings and cautions.

DIRECTIONS FOR USE

Each gallon of Federal Chlordane Eight Pound Emulsifiable Concentrate contains eight pounds of technical chlordane. The formulation is specifically designed for spontaneous mixing with water. The amount of water used in specific instances depends on the type of spray equipment, the insect to be controlled and the vegetation to be sprayed. Regardless of the amount of water used, the quantity of FEDERAL CHLORDANE EIGHT POUND EMULSIFIABLE CONCENTRATE should conform to the recommendations given and the mixture should be evenly distributed over areas requiring treatment. See side panels for directions for control of specific insects.

NET CONTENTS: Five Gallons

Manufactured By
Federal Chemical Company, Inc.
2701 Winthrop Ave.
Indianapolis, Indiana 46205

Dosage: Mix FEDERAL CHLORDANE EIGHT POUND CONCENTRATE with water at a rate of 1 pint of concentrate to 100 gallons of water. Apply as directed below. Plants should be sprayed until runoff appears.

Plants	Insect Pest	Directions
Arborvitae	Bagworms	Apply in late spring when insects are first observed.
Camellia	Leaf Beetles	Apply to the entire plant when injury is noticed.
Elm	Elm Leaf Beetle Leaf Beetles	Apply spray to entire plant.
Hawthorne	Leafminers	Apply spray to entire plant when mines are first noticed in the leaf.
Holly	Leaf Beetles	Apply spray to the entire plant.
Junipers	Bagworms	Apply in late spring when insects are first observed.
Magnolia	Leafminers	Apply when new growth starts or mines are first observed in the leaf.
Maple	Lace Bugs	Make application in latter part May. Repeat in 2 or 3 weeks if necessary.
Oak	Tree Crickets	Make application to tree when insects are present.
Privet	Thrips	Apply spray to the entire plant.
Rhododendron	Lace Bugs	Make application in latter part of May. Repeat in 2 or 3 weeks if necessary.
Roses	Thrips Japanese Beetle Adult	Apply spray to the entire plant.
Sweet Bay	Leafminers	Apply when new growth starts or mines are first noticed in the leaf.
Taxus	Black Vine Weevil	Spray entire plant. Thoroughly treat branches closest to the ground as well as drench the ground under the plant. Make application in in latter part of June. Use as much as 500 gallons per acre.
Willow	Willow Leaf Beetle	Apply spray to the entire plant.

Recommendations for the above insects may also be used on other shade trees, ornamentals perennials or annuals. The spray should be prepared by mixing 1 pint of FEDERAL CHLORDANE EIGHT POUND CONCENTRATE with 100 gallons of water. Apply sprays until runoff appears.

Also, sprays mixed at the above rate may be applied to shade trees, ornamentals, perennials and annuals for the control of:

Armyworms
Cutworms
Fall Armyworms

Japanese Beetle Adults
June Beetle Adults
May Beetle Adults

LAWN AND TURF

Insect Pest	Dosage/Acre	Directions
Ants Fire Ants Harvester Ants Leaf Cutting Ants	1 pint per 50 gal. water	Add 1 pint of concentrate to 50 gallons of water and soak the colony. These applications should be used with care around food crops when the edible portion of the food crop is not present
Asiatic Garden Beetle Larvae	2.5 to 5 pints	Wash into the soil immediately after application. 5 to 10 pts. per acre will give 5 year's control.
Boxelder Bugs	1 pt./ 100 gal water	Spray infested ornamental trees with spray made by mixing 1 pint of conc. with 100 gallons of water. Spray when nymphs appear. Spray ground where insect crawls with spray made by mixing 2.5 fl. oz. of concentrate per gallon of water. Repeat as needed.
Chiggers	1 pint	Apply to lawn or ornamental shrubbery
European Chafer Larvae	2.5-5 pts.	Wash into the top few inches of soil. If 5 to 10 pints per acre are applied, it will give a minimum of 5 years' control.
June Beetle Larvae	5 pints	
Japanese Beetle Larvae	2.5-5 pts.	
Mosquito (Adults)	3-6 fl. oz	Apply to grass and ornamental shrubbery. Also application may be made to walls and ceilings of porches and to outbuildings.
Ticks	1.5 pts.	Apply to lawns or ornamental shrubbery.
White Fringed Beetle Larvae	2.5-5 pints	Wash into the top few inches of soil. If 5 to 10 pints per acre are applied, it will give a minimum of 5 years's control.
White Grubs	2.5-5 pts.	
Wireworms	2.5-5 pts.	

CAUTION: Birds feeding in the treated areas may be killed. Do not apply to any fish bearing waters.

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Crop	Insect Pest	Dosage/Acre	Directions
Asparagus	Asparagus Beetle	1/2 pt./100 gal. water	Make post cutting applications only.
Beans	Flea Beetles Green Stink Bug	1-2 pints	Apply 1-2 pints per acre and make repeat applications. Do not make application to green snap beans after the pods begin to form.
Black-Eyed Peas	Flea Beetles Green Stink Bug	1-2 pints	Apply 1-2 pints per acre and make repeat applications. Do not make application after pods begin to form.
Cabbage and Other Cole Crops (Broccoli, Brussel Sprouts, Cauli- flower, Collards, Kale, Kohlrabi)	Cabbage Maggot	Spray 1 pt. per 100 gal water	Newly Set Plants: Spray around base of plants as soon as set in the field. Stir or wash the treatment into the soil. One or two repeated applications are frequently necessary.
		1 half gal. per 50 gal water.	Transplanting Dip: 4 pints/50 gallons water. Swish roots and crowns through mixture just before setting. Protection is limited to newly set plants.
		4 fl. oz. per 50 gal water.	Transplant Drench: Add 4 fl. oz. concentrate per 50 gallons water and apply around plant at planting time. Use about 400 gal./acre. Protection is limited to newly set plant.
	Cabbage Worms Flea Beetles Green Stink Bug Harlequin Bug	1-2 pts.	Several repeated applications may be necessary. No application after the heads or other edible portions begin to form.
Carrots	Carrot Rust Fly	1-2 pts.	Several repeated applications would be advised. Treated tops should not be used as food.

VEGETABLES

Crop	Insect Pest	Dosage/Acre	Directions
Celery -	Carrot Rust Fly	1.5 to 2 pints	Work into soil for seed bed and around plants in the field. No application after bunch begins to form or after half grown.
	Cutworms	1.5 to 2 pints	Work into soil for seed bed and around plants in the field. No application after bunch begins to form or after half grown.
	Mole Crickets	1 pint	Apply on soil around base of plant before bunch begins to form or before half grown.
	Wireworms	1 pt/50 lb of bait	1 pt. / 50 lbs. Bran/acre as a bait. No limitation.
2.5-5 pts		Work into soil around the time of planting or after harvest.	
Cucumbers - Cantaloupes - Watermelons	Cucumber Beetle Squash Bug Squash Vine Borer	1 to 1.5 pints	Apply 1 to 1.5 pts. concentrate per acre as a spray. There may be occasional slight plant injury. Do not apply after edible portions begin to form.
Egg Plant -	Flea Beetles Serpentine Leaf Miner	1 to 2 pints	Make repeated spray applications as necessary. There should be no application after the fruit begins to form.
Lettuce -	Armyworms Lygus Bugs Serpentine Leafminer Spotted Cucumber Beetle	1.5 to 2 pints	Apply 1.5 to 2 pints per acre as a spray. Do not make an application after heads begin to form on head lettuce or after seedling stage on leaf lettuce.
	Armyworms	8 fl. oz. / 100 lbs. bait	Add 8 fl. oz. concentrate per 100 lbs of bait and apply at rate of 20 to 25 lbs. per acre.
	Serpentine Leafminer Stink Bugs	1.5 to 2 pints	Do not make application after pods begin to form.

VEGETABLES

Crop	Insect Pest	Dosage/Acre	Directions
Onions -	Onion Maggot	1 pt. per 100 gallons of Water	Apply spray around the base of the plants as soon as they are set in the soil. 1 or 2 repeated applications are frequently necessary. Do not use on green or spring onions.
	Thrips	1.5 pts. as spray	Apply as spray to plants in the field. Do not make application to green or spring onions.
Peas -	Pea Leafminer	1 to 1.5 pints	Repeat applications as necessary. Do not feed treated pea vines to dairy animals or animals being fattened for slaughter. Do not treat within 15 days of harvest.
Peppers -	Cutworms	1.5 to 2 pints	Work into the soil around the plants. Do not make application after peppers begin to form.
	Mole Crickets	1 pint	Work into the soil around base of the plants. Do not make application after peppers begin to form.
	Wireworms	2.5 to 5 pints	Work into soil prior to or at planting in the field.
Potatoes -	Colorado Potato Beetle Flea Beetles Serpentine Leafminer	12 fl. oz. to 1.5 pts.	spray plants as needed. Repeat applications may be necessary.
	Wireworms	2.5 to 6 pints	Work into the soil prior to or at planting time. Applications of 5 to 10 lbs. will give 3 years control. If application is made to the row use 1 pint per acre.
		10 pints	Applications of 10 pints per acre will give 3 years control in the Pacific Northwest. Work into the soil prior to or at planting time. If application is made to the row use 1 pint per acre.
Pumpkins	Cucumber Beetle Squash Bug Squash Vine Borer	1 to 1.5 pints	Apply 1 to 1.5 pints per acre as spray. Do not apply after edible portions begin to form.
Squash	Cucumber Beetle Squash Bug Squash Vine Borer	1 to 1.5 pints	Apply 1-1.5 pints per acre as a spray. There may be slight occasional plant injury. Do not apply after edible portions begin to form.
Sweet Potato	Flea Beetle Larvae White Grubs Wireworms	2.5 to 5 pints	Apply 2.5 to 5 pints per acre before planting and work into the top few inches of soil.
Tomato	Flea Beetles Serpentine Leafminer Tomato Hornworm	1 to 2 pints	Spray at the rate of 1 to 2 pints per acre. Several repeated applications may be necessary. There should be no application after the fruit begins to form.
Tomato	Wireworms	2 fl. oz. per 50 gal. water	For transplanting water, add 2 oz. concentrate per 50 gallons of water for protecting the transplant seedlings. Use 250-300 gallons per acre. 4 oz. concentrate per 50 gallons of water is desired for heavy infestations.

Crop	Insect Pest	Dosage/Acre	Directions
Apricots -	Catfacing Insects Plum Curculio	1 to 1.5 pints/ 100 gal. water	Make first application on a full coverage basis, beginning with the shuck split stage. Several repeated applications are usually necessary. No application should be made within 30 days of harvest.
Blackberries -	Strawberry Root Weevil (Adults)	2 pints foliar	Apply before fruit appears in the spring and after harvest.
	White Grubs Root Weevil (Larvae)	10 pints soil	Work into soil at base of plants when no fruit is present.
Blueberries -	Cranberry Rootworm White Grubs	10 pints	Apply 10 pints per acre to the soil around the base of plants when no fruit is present.
Grapes -	Japanese Beetle Grubs	2.5 to 5 pints	Apply as a soil application before fruit begins to form on the vines. If 5 to 10 pints per acre is applied, it will give control for at least 5 years.
	Thrips	2 pints	Apply before the fruit begins to form.
anberries -	Japanese Beetle Grubs White Grubs	2.5 to 5 pints	Apply to the soil when no fruit is present. If 10 pints per acre is applied, this will give protection for a minimum of two to three years.
Nectarines -	Catfacing Insects Plum Curculio	1 to 1.5 pints per 100 gal. water	Make first application on a full coverage basis beginning with the shuck split stage. Several repeated applications are usually necessary. Do not make application within 30 days of harvest.
Peaches -	Catfacing Insects Plum Curculio	1 to 1.5 pints per 100 gal. water	Make first full coverage application beginning with the shuck split stage. Several repeated applications are usually necessary. No application should be made within 30 days of harvest.
	Plum Curculio	2 pints	Make supplemental treatment to spray program of 2 pints to soil surface and disk immediately. Make application anytime from late fall until early spring before the first generation plum curculio larvae enter the soil.
Raspberry -	Strawberry Root Weevil White Grubs	10 pints	Apply to the soil and work into the top few inches of the soil immediately after application.
Strawberry -	Crown Borer Spittlebugs Strawberry Weevil	1 to 1.5 pints per 100 gal. water	Spray the plants. There should be no application to the plants after the fruit begins to form.
	Strawberry Root Weevil (Adult)	2 pints	Make foliage application before fruit is set and after harvest.
	Strawberry Root Weevil White Grubs	10 pints	Work into the soil at the time of planting.
	Strawberry Rootworm	5 to 10 pints	Apply as a preplanting soil treatment.
	Strawberry Rootworm (Adult)	1 to 1.5 pints	Apply at time blossoms open or after harvest for control of adults on established plantings.

FIELD CROPS

Crop	Insect Pest	Dosage/Acre	Directions
Barley -	Armyworm	1 to 2 pints	Apply when larvae are present. Do not apply after heads begin to form. Do not graze treated fields.
Corn . (field and sweet)	Wireworms White Grubs Seed Corn Beetles * Seed Corn Maggots Green June Bug Larvae Asiatic Garden Beetles * White Fringed Beetles * Japanese Beetles * Cutworms (*Grubs)	2.5 to 4 pints broadcast 5 pints for Green June Bug Larvae	Apply 2.5 to 4 pints as broadcast after field is plowed. Disc in promptly.
	Corn Rootworms (Northern) (Southern) Corn Field Ants Corn Root Aphids	2 to 4 pints broadcast 1 pint in the row	Apply 2 to 4 pints as broadcast after field is plowed. Disc in promptly. Apply 1 pint per acre in the row at planting time.
	White Grubs Wireworms	2 pints in row	Apply 2 pints per acre in the row at planting time.
Flax -	Crickets	2.5 to 3 pints	Do not apply after the blossom stage of flax. Do not feed foliage from treated crops to dairy animals or animals being fattened for slaughter.
Oats -	Armyworms	1 to 2 pints	Apply when larvae are present. Do not apply after heads begin to form. Do not graze treated fields.
Rye	Armyworms	1 to 2 pints	Apply when larvae are present. Do not apply after heads begin to form. Do not graze treated fields.
Tobacco	Wireworms	2 fl. oz. per 50 gal. water	For transplanting water, add 2 fl. oz. of concentrate per 50 gallons of water for protecting transplant seedlings. Use 250-300 gallons per acre. 4 fl. oz. of concentrate per 50 gallons of water is desired for heavy infestations.
Wheat -	Armyworms	1 to 2 pints	Apply when larvae are present. Do not apply after heads begin to form. Do not graze treated fields.

TERMITE CONTROL

In Buildings	Termites	<p>1 pint per 12 gal. of water.</p> <p>This makes a 1% emulsion.</p>	<p>Apply a 1% chlordane emulsion as follows:</p> <p>1-Slab-Type Construction</p> <p>a-Apply 1 gallon per 10 sq. ft. as an overall pre-construction treatment under the slab and under attached porches.</p> <p>b-Apply 2 gallons per 5 lineal feet to critical areas under the slab as pre-construction treatment, such as along the inside of foundation walls and around utility entrances and interior partition foundation walls.</p> <p>c-Apply 2 gallons per 5 lineal feet along the outside of the foundation using a trench to the depth of the foundation.</p> <p>2-Crawl-Space Houses and Homes With Basement</p> <p>a-Apply 2 gallons per 5 lineal feet as a trenching application to critical areas under the house, such as along the inside of foundation walls and around piers and utility entrances. If trench is deeper than 15-18 inches, apply 4 gallons per 5 lineal feet.</p> <p>b-Apply 2 gallons per 5 lineal feet in a trench along the outside of foundation walls, including entrance platforms and porches where the foundation is not more than 15-18 inches deep. If over 15-18 in. deep but not over 30 inches deep, apply 4 gallons per 5 lineal feet of trench.</p> <p>c-Apply 1 gallon per 10 square feet of soil surface as a pre-construction treatment where the attached porches, entrance platforms, utility entrances, etc., have covering slab or fill of ground.</p> <p>A minimum 5 years control is obtained by the use of a 1% chlordane emulsion in above application.</p>
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