

POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING



Chlorothalonil 720 FUNGICIDE

ACTIVE CONSTITUENT: 720g/L CHLOROTHALONIL

GROUP Y FUNGICIDE

For the control of fungal diseases on almonds, apricots, bananas, carrots, celery, cherries, faba beans, grapes, onions, peaches, peanuts, plums, potatoes, tomatoes and vegetables as per the Directions for Use table.

DIRECTIONS FOR USE BOOKLET

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APVMA Approval No.: 62069/1107

GENERAL INSTRUCTIONS:

4Farmers Chlorothalonil 720 Fungicide is a protectant fungicide for the control of a range of diseases in fruit and vegetables. To achieve best results the product must be applied before disease occurs or becomes established. For effective disease control a good leaf cover must be achieved before a wide spread disease outbreak occurs.

Mixing: Thoroughly shake and invert the pack several times before opening. Half fill spray vat and with agitation system running, add the required amount of product.

APPLICATION:

Dilute Spraying:

- Use a sprayer designed to apply high volumes of water up to the point of run-off.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the required amount of product specified in the Directions for Use for each 100L of water. Spray to the point of run-off.
- The required dilute spray volume will change as spray set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying:

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed eg: low volume airblast.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine the appropriate dilute spray (see dilute spraying above) for crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

Example Only:

- Dilute spray volume as determined above: For example 1500L/ha
 - Your chosen concentrate spray volume: For example 500L/ha
 - The concentration factor in this example is 3 (ie 1500L [] 500L = 3)
 - If the dilute label rate is 10mL/100L, then the concentrate rate becomes 3 x 10 that is 30mL/100L of concentrate spray.
- The chosen spray volume, amount of product per 100L of water, and the sprayer set up and operation may need to be changed as the crop grows.
 - For further information on concentrate spraying, users are advised to consult the relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

APPLICATION RATES PER HECTARE

Low Volume: 200 litres or more.

Mister: 75 to 255 litres

High Volume: 500 litres or more.

Aerial Application: 20 litres or more.

The volume of water applied should increase as the plants grow in size to maintain adequate cover.

COMPATIBILITY

This product is compatible with wettable powder formulations of the most commonly used fungicides, insecticides and miticides. Unless experience in your area has shown other combination to be physically compatible and no-injurious to your crop, do not combine with other chemicals, especially oil-based emulsifiable or flowable pesticides. This product should not be mixed with spraying oils or sprayed onto crops that have been sprayed with oil for at least 10 days after the last spray.

Wetting Agents: The addition of surfactants does not improve this product's efficiency and under some conditions may cause plant injury.

FUNGICIDE RESISTANCE WARNING

4Farmers Chlorothalonil 720 Fungicide is

GROUP Y FUNGICIDE

a member of the multi-site activity group of fungicides. For fungicide resistance management 4Farmers Chlorothalonil 720 Fungicide is a Group Y fungicide. Some naturally occurring individual fungi resistant to 4Farmers Chlorothalonil 720 Fungicide and other Group Y fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungi population if these fungicides are used repeatedly. The resistant fungi will not be controlled by 4Farmers Chlorothalonil 720 Fungicide and other Group Y fungicides, thus resulting in a reduction in efficacy and possible yield loss. Since the occurrence of resistant fungi is difficult to detect prior to use, 4 Farmers Australia Pty Limited accepts no liability for any losses that may result from the failure of 4Farmers Chlorothalonil 720 Fungicide to control resistant fungi.

PROTECTION OF LIVESTOCK

DO NOT contaminate feed or foodstuff with this product or empty containers.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container, in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling break, crush or puncture and bury containers at a local authority landfill. If no landfill is available, bur the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

DIRECTIONS FOR USE

RESTRAINTS:

DO NOT mix spraying oils or wetting agents with this product.

For all stone fruit **except Cherries**, the following additional restraints apply:

DO NOT use oils after bud-swell and during the season if 4Farmers Chlorothalonil 720 Fungicide is to be used after shuck fall.

DO NOT tank mix this product with EC formulations when spraying after shuck fall.

DO NOT EXCEED 3.2L of this product per hectare crop.

TREE AND VINE CROPS

Rate				Critical Comments
In the following table, all rates given for dilute spraying. For concentrate spraying, refer to the mixing/application section				
Crop	Disease	Rate	Withholding Period (Days)	
Almonds (NOT Qld, NT)	Shot hole (<i>Stigmia carpophila</i>) Stone fruit rust (<i>Tranzschelia discolor</i>)	160mL/100L	-	Apply at bud-swell, bud burst, pink-bud, shuck fall cap fall. Apply every 10-14 days. Apply 1 week pre-harvest.
Apricots (NOT Qld, NT)	Brown rot- Fruit (<i>Monilinia fructicola</i>) Blossom blight (<i>Monilinia laxa</i>)	160mL/100L	7	Apply at bud-swell, bud-burst, pink-bud, full bloom. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also additional restraints for stone fruits.
	Stone Fruit rust (<i>Tranzschelia discolor</i>) Shot-hole (<i>Stigmia carpophila</i>) Freckle (<i>Venturia carpophila</i>)			Apply at bud-swell, bud burst, pink bud, shuck fall cap fall, and then every 10-14 days. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also additional restraints for stone fruits.
Cherries	Brown rot - Fruit (<i>Monilinia fructicola</i>) Blossom blight (<i>Monilinia laxa</i>)	160mL/100L	7	Apply at bud-swell, bud-burst, pink bud, early blossom, full bloom. Apply 3 weeks pre-harvest and 1 week pre-harvest.
	Shot-hole (<i>Stigmia carpophila</i>) Stone fruit rust (<i>Tranzschelia discolor</i>)			Apply at bud-swell, bud burst, pink bud, shuck fall, cap fall, and then apply every 10-14 days. Apply 1 week pre-harvest.
	Transit Rot (<i>Rhizopus stolonifer</i>)			Apply 1 week pre-harvest.
Grapes Note russetting of some table grape varieties may occur	Downy mildew (<i>Plasmopara viticola</i>) Bunch rot (<i>Botrytis cinerea</i>)	210mL/100L	Dessert 7 Wine 14	Spray at first appearance of the foliage disease. Apply at 7-14 day intervals particularly during wet weather and periods of rapid growth. For Bunch Rot, applications at early full bloom, two weeks later, at veraisson and two weeks prior to harvest Table grapes- Russetting of some varieties may occur. Use only up to cap fall in these varieties.
	Black Spot (Arthracnose) (<i>Elsinoe ampelina</i>)			If Black Spot has occurred in the vineyard within the last three years, apply at budburst and 14 days later when shoots are 10-15 cm long. If wet/humid conditions persist spray again when shoots are 20-30cm long to protect new growth. Some initial minimal leaf damage on the new shoots of sensitive varieties can occur if spray treatments are applied at budburst and in the first 14 days after budburst. In vineyards with no history of Black Spot, spray only at the first appearance of the disease on the foliage and then at 7-14 day intervals if wet/humid conditions persist. Applications up to cap-fall will not cause russetting in table grape and dried fruit varieties.
Nectarines (Not Qld)	Shot-hole (<i>Stigmia carpophila</i>)	160mL/100L	7	Apply at bud-swell, pink bud, shuck fall and then repeat each 14 days if weather conditions favour disease. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.
	Brown rot -Fruit (<i>Monilinia fructicola</i>) Blossom blight (<i>Monilinia laxa</i>)			Apply at bud-swell, bud burst, pink bud, early blossom and full bloom. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.
Peaches	Shot-hole (<i>Stigmia carpophila</i>) Stone fruit rust (<i>Tranzschelia discolor</i>)	160mL/100L	7	Apply at bud-swell, pink bud, early blossom and full bloom. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.
	Leaf curl (<i>Taphrina deformans</i>)			Apply at bud-swell and continue at 7-14 day intervals. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.
				Apply at bud-swell and continue at 7-14 days intervals. In Qld spray only at bud-swell Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.
Plums	Brown rot -Fruit (<i>Monilinia fructicola</i>) Blossom blight (<i>Monilinia laxa</i>)	160mL/100L	1	Apply at bud-swell, bud burst, early blossom, pink bud and full bloom. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.
	Shot-hole (<i>Stigmia carpophila</i>) Stone fruit rust (<i>Tranzschelia discolor</i>)			Apply at bud-swell, bud burst, shuck fall and cap fall. Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.

NON TREE AND VINE CROPS

Crop	Disease	Rate	Withholding Period (Days)	Critical Comments
Artichoke – Globe	Grey Mould (<i>Botrytis cinerea</i>)	1.8-2.3L/ha	1	Apply at 7-10 day intervals as required. Use the higher rate if disease pressure is high.
Bananas Do not apply to bananas within 14 days of applying an oil based spray or crop damage will occur.	Leaf Spot (<i>Mycosphaerella musicola</i>)	1.8L/ha (Qld, NSW, WA, NT only) 1.5L/ha (WA only)	7	For North Qld: Spray every 14 days later January to end of March. Extend to 21 days after March and then 28-35 days in the drier months of the year. For South Qld: Spray every 21 days from start of December to end of April. For NSW: Spray every 21days from end of November to end of May. For WA: Spray every 10-14 days from November to end of May and extend to 14-21 days from May to November.
	Leaf speckle (<i>Mycosphaerella musae</i>)	3L/ha (Qld, NSW, WA, NT only)		Spray schedule same as for control of Leaf Spot. This product will not eradicate infection already but will prevent the spread of disease.
Beans - Broad (Faba)	Chocolate spot (<i>Uromyces viciae-fabae</i>), Rust (<i>Uromyces viciae-fabae</i>)	1.4-2.3L/ha	7	Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 7-14 days intervals. Use the higher rate if the crop is dense and disease pressure is high.
Broccoli, Brussels Sprouts, Cabbages, Cauliflower	Ring spot (<i>Mycosphaerella brassicicola</i>)	1.8-3.5L/ha	7	Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 14 days intervals. Use the higher rate if the crop is dense and disease pressure is high.
Capsicums Peppers	Grey mould (<i>Botrytis cinerea</i>) Anthracnose (<i>Colletotrichum acutatum</i>)	1.8-2.3L/ha	1	Apply at 7-10 day intervals as required. Use the higher rate if disease pressure is high.
Carrots	Leaf Blight (<i>Alternaria dauci</i>)	1.8L/ha	7	Commence application at first sign of disease and then spray every 7-14 days
Celery	Septoria leaf spot (<i>Septoria apicola</i>)	1.2L/ha	1	Apply every 7-14 days. Apply also to seed beds.
	Cercospora Early Blight (<i>Cercospora apii</i>) (NSW, WA only)		Apply every 10-14 days.	

SAFETY DIRECTIONS

Attacks the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. When preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves and goggles and disposable mist mask. If clothing becomes contaminated with product or wet with spray remove clothing immediately. If product in eyes, wash it out immediately with water. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and goggles and contaminated clothing.

FIRST AID

If poisoning occurs a doctor, or Poisons Information Centre (Phone 13 11 26).

If swallowed, DO NOT induce vomiting. Give a glass of water.

SAFETY DATA SHEET

For further information please refer to the Safety Data Sheet. For a copy visit our website at www.4farmers.com.au

CONDITIONS OF SALE

The use of 4Farmers Chlorothalonil 720 Fungicide being beyond the control of the manufacturer, no warranty expressed or implied is given by 4 Farmers Australia Pty Ltd regarding its suitability, fitness or efficacy for any purpose for which it is used by the buyer, whether in accordance with the directions or not and 4 Farmers Australia Pty Ltd accepts no responsibility for any consequences whatsoever resulting from the use of this product.

NON TREE AND VINE CROPS

Crop	Disease	Rate	Withholding Period (Days)	Critical Comments
Cucurbits including Cantaloupe, Cucumbers, Honeydew, Muskmelon, Pumpkin, Squash, Rockmelon, Watermelon, Zucchini	Downy mildew (<i>Pseudoperonospora cubensis</i>) Gummy Stem Blight (<i>Didymella bryoniae</i>) Anthracnose (<i>Colletotrichum orbiculare</i>) Leaf Blight (<i>Alternaria cu</i>), Target Leaf Spot (<i>Cercospora citrullina</i>)	1.6-2.5L/ha	1	Apply on a 7-14 day schedule. Apply rates towards the higher end of the recommended range and at 7 day intervals when disease pressure is high. Commence spray program early at first true leaf, and before vining or flowering. When used at these rates this product will suppress Powdery Mildew.
	Belly Rot (<i>Rhizoctonia solani</i>)			Suppression of belly rot will be obtained where fruit form on soil when sprayed using the above foliar spray programme.
Endive	Grey Mould (<i>Botrytis cinerea</i>)	1.8-2.3L/ha		Apply at 7-10 day intervals as required. Use the higher rate if disease pressure is high.
Leeks Shallots	Purple Blotch (<i>Alternaria porri</i>)			Apply at first appearance of the disease. Repeat at 7-10 day intervals particularly during wet weather.
Okra	Leaf diseases/spot (Qld, WA only)			Apply at first appearance of the disease. Repeat at 7-10 day intervals.
Onions (excluding spring onions)	Downy Mildew (<i>Peronospora destructor</i>)	2.3L/ha	14	Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 14 day intervals
Ornamentals Chrysanthemums, Geraniums, Iris and other ornamentals	Botrytis, Grey mould, Rust diseases, Septoria and Alternaria leaf spot diseases	100mL/100L	-	Apply at 7-14 day intervals. Use 7 day interval under severe conditions. Avoid application to blooms in Azalea, Hydrangea and Petunia.
Peanuts (NOT Vic, Tas, SA)	Early leaf spot (<i>Cercospora arachidicola</i>) Late leaf spot (<i>Cerosporidium personatum</i>) Peppery leaf spot (<i>Leplosphaerulina trifolii</i>) Peanut Rust (<i>Puccinia arachidis</i>) Net blotch (<i>Didymosphaeria arachidicola</i>)	1.1-1.8L/ha	-	Use higher rate when conditions favour leaf spot or when rust appears. DO NOT feed peanut vines to livestock. South Burnett, NSW and WA only: Commence application as soon as conditions favour disease development and repeat as necessary to maintain control. Atherton Tableland: Commence spraying six weeks after planting and repeat at 14 day intervals.
			7	Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 7-14 day intervals. Use the higher rate if the crop is dense and disease pressure is high.
			-	Spray at first sign of foliage disease or at flowering time, whichever is earlier. Spray every 7-14 days until within 14 days of desiccation or harvest.
Peas (Qld, Tas, WA only)	Downey mildew (<i>Peronospora viciae</i>)			
Potatoes	Early Blight or Target Spot (<i>Alternaria solani</i>) Late Blight or Irish Blight (<i>Phytophthora infestans</i>)			
Radish	Grey Mould (<i>Botrytis cinerea</i>)	1.8-2.3L/ha	1	Apply at 7-10 intervals as required. Use the higher rate if disease pressure is high
Rhubarb	Assochyta leaf spot (<i>Ascochyta rhei</i>)	140mL/100L Apply 2000L/ha	7	Apply every 10-14 days.
Sweet corn	Turcicum Leaf Blight (<i>Exserohilum turcicum</i>)	1.8-2.3L/ha	1	Apply at first appearance of the disease. Repeat at 7-10 day intervals.
Tobacco (Qld, WA only)	Tobacco leaf spot (<i>Ascochyta arida</i>)	220mL/100L	-	Apply every 7 days in seed bed application only.
Tomatoes	Early Blight or Target Spot (<i>Alternaria solani</i>) Leaf Mould (<i>Fulvia fulva</i>) Grey Leaf Spot (<i>Stemphylium solari</i>) Botrytis Rot or Grey Mould (<i>Botrytis cinerae</i>)	1.8-2.3L/ha	1	Spray at first appearance of the foliage diseases. Spray at 7-14 day intervals. Continue into the picking season to obtain best results against Leaf Mould and Botrytis Rot.
				Watercress (Qld, WA only)

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED LEGISLATION.

WITHHOLDING PERIOD:

ARTICHOKES, BANANAS, CAPSICUM, CELERY,

CUCURBITS, ENDIVE, LEEK, OKRA, PEPPERS, PLUMS,

RADISH, SHALLOTS, SWEET CORN, TOMATOES, WATERCRESS:

DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

BEANS, BROCCOLI, BRUSSELS SPROUTS, CABBAGES,

CAULIFLOWERS, RHUBARB:

APRICOTS, CARROTS, CHERRIES, NECTARINES, PEACHES,

TABLE GRAPES, PEAS:

DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

ONIONS, WINE GRAPES:

DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

BEANS, PEANUTS, PEAS:

DO NOT GRAZE LIVESTOCK ON TREATED CROPS.

ALMONDS, POTATOES, PEANUTS (Harvest):

NOT REQUIRED WHEN USED AS DIRECTED.