

POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

FMC

Chlorothalonil

720 FUNGICIDE

ACTIVE CONSTITUENT: 720 g/L CHLOROTHALONIL

GROUP

M5

FUNGICIDE

For the control of fungal diseases on Almonds, Bananas, Cucurbits, Grapes, Ornamentals, Peanuts, Stone Fruit, Tobacco and Vegetables as specified in the DIRECTIONS FOR USE table.

IMPORTANT: READ THIS LEAFLET BEFORE USE

FMC

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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 FMC Chlorothalonil 720 Fungicide is to be used after shuck fall.

DO NOT tank mix FMC Chlorothalonil 720 Fungicide with EC formulations when spraying after shuck fall.

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

FRUIT AND VEGETABLES

Situation & Crop	Disease	State	Rate	WHP (days)	Critical Comments
Artichoke Globe	Grey Mould (<i>Botrytis cinerea</i>)	All States	1.8-2.3 L/ha	1	Apply at 7 to 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>)	Qld, NSW, NT only	1.8 L/ha	1	North Qld: Spray every 14 days late January to end of March. Extend to 21 days after March and then 28-35 days in the drier months of the year. South Qld: Spray every 21 days from start of December to end of April. WA: Spray every 10 to 14 days from November to end of May and extend to 14-21 days from May to November. NSW: Spray every 21 days from end of November to end of May.
		WA only	1.5 L/ha		
	Leaf Speckle (<i>Mycosphaerella musae</i>)	Qld, NSW, WA, NT only	3.0 L/ha		Spray schedule same as for control of disease.
Broccoli, Brussels sprouts	Ring Spot (<i>Mycosphaerella brassicicola</i>)	All States	1.8-3.5 L/ha	7	Make the first application as soon as conditions favour development of the disease. Repeat at 14 day intervals. Use higher rate if disease pressure is high.

Situation & Crop	Disease	State	Rate	WHP (days)	Critical Comments
Capsicums Peppers	Grey Mould (<i>Botrytis cinerea</i>), Anthracnose (<i>Colletotrichum acutatum</i>)	All States	1.8-2.3 L/ha	1	Apply at 7 to 10 day intervals as required. Use the higher rate if disease pressure is high.
Cabbages, Cauliflowers	Ring Spot (<i>Mycosphaerella brassicicola</i>)		1.8-3.5 L/ha	7	Make the first application as soon as conditions favour development of the disease. Repeat at 14 day intervals. Use higher rate if disease pressure is high.
Carrots	Leaf Blight (<i>Alternaria dauci</i>)		1.8 L/ha		Commence application as soon as symptoms favour the development of the disease and then spray every 7-14 days
Celery	Septoria Leaf Spot (<i>Septoria apicola</i>)		1.8 L/ha	1	Apply every 7-14 days. Apply also to seedbeds.
	Cercospora Early Blight (<i>Cercospora apii</i>)	NSW, WA only	1.2 L/ha		Apply every 10 to 14 days.
Cucurbits (including Cantaloupe, Cucumber, 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 cucumerina</i>), Target Leaf Spot (<i>Cercospora citrullina</i>)	All States	1.6-2.5 L/ha	1	Apply on a 7 to 14 day schedule. Apply rates towards the higher end of the recommended range 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, FMC Chlorothalonil 720 Fungicide will suppress Powdery Mildew.
	Belly Rot (<i>Rhizoctonia solani</i>)				If applying FMC Chlorothalonil 720 Fungicide for the above foliar diseases, useful suppression of Belly Rot will be obtained where fruit form on soil covered by earlier FMC Chlorothalonil 720 Fungicide spraying.

Situation & Crop	Disease	State	Rate	WHP (days)	Critical Comments
Endive	Grey mould (<i>Botrytis cinerea</i>)	All States	1.8-2.3 L/ha	1	Apply at 7 to 10 day intervals as required. Use the higher rate if disease pressure is high.
Leeks Shallots	Purple Blotch (<i>Alternaria porri</i>)	Qld, WA only	2.3 L/ha	14	Make the first application as soon as conditions favour development of the disease. Repeat at 7 to 10 day intervals, particularly during wet weather.
Okra	Leaf Disease/Spot				Make the first application as soon as conditions favour development of the disease. Repeat at 7 to 10 day intervals.
Onions (excluding spring onions)	Downy Mildew (<i>Peronospora destructor</i>)				Make the first application as soon as conditions favour development of the disease. Repeat at 14 day intervals.
Potato	Early Blight or Target Spot (<i>Alternaria solani</i>), Late Blight or Irish Blight (<i>Phytophthora infestans</i>)	All States	1.1-1.8 L/ha	-	Commence application at flowering time or earlier if weather conditions are favourable for disease infection. Spray every 7 to 14 days until within 14 days of desiccation or harvest.
Rhubarb	Ascochyta Leaf Spot (<i>Ascochyta rhei</i>)	All States	140 mL/100 L Apply 2000 L/ha	7	Apply every 10 to 14 days.
Radish	Grey Mould (<i>Botrytis cinerea</i>)	All States	1.8-2.3 L/ha	1	Apply every 7 to 10 day intervals as required. Use the higher rate if disease pressure is high.
Sweet Corn	Turcicum Leaf Blight (<i>Exserohilum turcicum</i>)				Make the first application as soon as conditions favour development of the disease. Repeat at 7 to 10 day intervals.
Tomato	Early Blight or Target Spot (<i>Alternaria solani</i>), Leaf Mould (<i>Fulvia fulva</i>), Grey Leaf Spot (<i>Stemphylium solani</i>), Botrytis Rot or Grey Mould (<i>Botrytis cinerea</i>)				Make the first application as soon as conditions favour development of the disease. Continue into the picking season to obtain best results against Leaf Mould and Botrytis Rot.
Water Cress	Cercospora Leaf Spot	Qld, WA only			Apply every 7 to 10 day intervals as required. Use the higher rate if disease pressure is high.

LEGUMES

Situation & Crop	Disease	State	Rate	WHP (days)	Critical Comments
Beans – Broad (Faba)	Chocolate Spot (<i>Botrytis fabae</i>), Rust (<i>Uromyces viciae-fabae</i>)	All States	1.4-2.3 L/ha	7	Make the first application as soon as conditions favour development of the disease. Repeat at 7 to 14 day intervals. Use the higher rate if the crop is dense and disease pressure is high.
Peanuts	Early Leaf Spot (<i>Cercospora arachidicola</i>), Late Leaf Spot (<i>Cercosporidium personatum</i>), Peppery Leaf Spot (<i>Leptosphaerulina trifolii</i>), Peanut Rust (<i>Puccinia arachidis</i>), Net Blotch (<i>Didymosphaeria arachidicola</i>)	Qld, NSW, WA, NT only	1.1-1.8 L/ha	-	Use higher rate for Peanut Rust. South Burnett, NSW, WA: Commence application as soon as conditions favour development of the disease, repeat as necessary to maintain control. Atherton Tablelands – Commence application 6 weeks after planting and repeat every 2 weeks.
Peas	Downy Mildew (<i>Peronospora viciae</i>)	Qld, Tas, WA only	1.1-1.8 L/ha	7	Make the first application as soon as conditions favour development of the disease. Repeat at 7 to 14 day intervals. Use the higher rate if the crop is dense and disease pressure is high.

MISCELLANEOUS

Situation & Crop	Disease	State	Rate	WHP (days)	Critical Comments
Ornamentals Chrysanthemums, Geraniums, Iris & other ornamentals	Botrytis, Grey Mould, Rust diseases, Septoria and Alternaria leaf spot diseases	All States	100 mL/100 L	-	Apply at 7-14 day intervals. Use 7 day interval under severe conditions. Avoid application to blooms in Azalea, Hydrangea and Petunia.
Tobacco	Tobacco Leaf Spot (<i>Ascochyta arida</i>)	Qld, WA only	220 mL/100 L		Apply every 7 days in seedbed application only.
Turf and lawn bowls, bowling greens and golf greens	Dollar Spot (<i>Sclerotinia Homeocarpa</i>)	Qld, NSW, ACT, Vic, SA, WA only	130 200 mL/100m ² in 20-60L water		If disease is already established use higher rate. Apply at 7-14 day intervals. Under severe conditions spray at 7 day intervals. DO NOT mow or water treated area until the turf or lawn is Thoroughly dry.
	Brown Patch (<i>Rhizoctonia sp.</i>)	All States			
	Grey leaf Spot (<i>Stemphylium solani</i>)	NSW, WA only	24 L/ha		

TREE AND VINE CROPS

RATE					Critical Comments	
This table shows rates for dilute spraying. For concentrate spraying refer to the Mixing/Application Section.						
Situation	Disease	State	Rate	WHP (days)		
Almonds	Shot-hole (<i>Stigmia carpophila</i>), Stone Fruit Rust (<i>Tranzschelia discolor</i>)	NSW, Vic, Tas, SA, WA only	160 mL/100 L Apply 2000 L/ha	-	Apply at bud-swell, bud-burst, pink bud, shuck fall, cap fall. Apply every 10 to 14 days. Apply 1 week pre-harvest.	
Apricots	Brown Rot – Fruit (<i>Monilinia fructicola</i>), Blossom Blight (<i>Monilinia laxa</i>)			7	Apply at bud-swell, bud-burst, pink bud, full bloom.	Applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruit.
	Shot-hole (<i>Stigmia carpophila</i>), Stone Fruit Rust (<i>Tranzschelia discolor</i>) Freckle (<i>Venturia carpophila</i>)				Apply at bud-swell, bud-burst, pink bud, shuck fall, cap fall, then every 10 to 14 days.	
Cherries	Brown Rot – Fruit (<i>Monilinia fructicola</i>), Blossom Blight (<i>Monilinia laxa</i>)	Qld, NSW, Vic, Tas, SA, WA only			Apply at bud-swell, bud burst, pink bud, early blossom, and 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>)	All States			Apply at bud-swell, bud burst, pink bud, shuck fall, cap fall, then every 10 to 14 days. Apply 1 week pre-harvest.	
	Transit Rot (<i>Rhizopus stolonifer</i>)				Apply 1 week pre-harvest.	

RATE					Critical Comments
This table shows rates for dilute spraying. For concentrate spraying refer to the Mixing/Application Section.					
Situation	Disease	State	Rate	WHP (days)	
Grapes Note: russetting of some table grape varieties may occur	Downy Mildew (<i>Plasmopara viticola</i>), Bunch Rot (<i>Botrytis cinerea</i>)	All States	160-210 mL/100 L	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 veraison and two weeks prior to harvest. Table grapes: russetting of some varieties may occur. DO NOT apply after cap fall on these varieties.
	Black Spot (Anthracnose) (<i>Elsinoe ampelina</i>)		210 mL/100 L		If Black Spot has occurred in the vineyard in any of 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 20-30 cm 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, make the first application as soon as conditions favour the development 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

RATE					Critical Comments	
This table shows rates for dilute spraying. For concentrate spraying refer to the Mixing/Application Section.					For uses in the table: Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. DO NOT use at rates greater than 5 times the dilute spraying rate	
Situation	Disease	State	Rate	WHP (days)		
Nectarines	Shot-hole (<i>Stigmina carpophila</i>)	All States except Qld	160 mL/100 L Apply 2000 L/ha	7	Apply at bud-swell, pink bud, shuck fall and then repeat each 14 days if weather conditions favour disease.	Application later than 35 days pre-harvest as unacceptable fruit skin damage may occur. 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.	
Peaches	Brown Rot – Fruit (<i>Monilinia fructicola</i>), Blossom Blight (<i>Monilinia laxa</i>)	All States	160 mL/100 L Apply 2000 L/ha	7	Apply at bud-swell, pink bud, early blossom and full bloom.	Application later than 35 days pre-harvest as unacceptable fruit skin damage may occur. See also Additional Restraints for stone fruits.
	Shot-hole (<i>Stigmina carpophila</i>), Stone Fruit Rust (<i>Tranzschella discolor</i>)				Apply at bud-swell and continue at 7-14 day intervals.	
	Leaf Curl (<i>Taphrina deformans</i>)				Apply at bud-swell and continue at 7-14 day intervals. In Qld spray only at bud-swell.	
Plums	Brown Rot – Fruit (<i>Monilinia fructicola</i>), Blossom Blight (<i>Monilinia laxa</i>) (NOT WA)	Qld, NSW, Vic, Tas, SA, WA only	160 mL/100 L Apply 2000 L/ha		Apply at bud-swell, bud-burst, early blossom, pink bud and full bloom.	
	Shot-hole (<i>Stigmina carpophila</i>), Stone Fruit Rust (<i>Tranzschella discolor</i>)	All States			Apply at bud-swell, bud burst, shuck fall and cap fall.	

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS

LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION

WITHHOLDING PERIODS

Artichokes, Bananas, Capsicums, Celery, Cucurbits, Endive, Leek, Okra, Peppers, Plums, Radish, Shallots, Sweet Corn, Tomatoes, Watercress	DO NOT HARVEST FOR 1 DAY AFTER APPLICATION
Apricots, Beans, Broccoli, Brussels Sprouts, Cabbages, Carrots, Cauliflowers, Cherries, Nectarines, Peaches, Peas, Rhubarb, Table Grapes	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.

GENERAL INSTRUCTIONS

FMC Chlorothalonil 720 Fungicide is a protectant fungicide only, it must be applied before disease occur / become established to be highly effective. Use disease warning services, or past history to determine timing of the first spray. If diseases are already present, then an eradicator product should be used first and mixed with FMC Chlorothalonil 720 Fungicide.

FUNGICIDE RESISTANCE WARNING

GROUP M5 FUNGICIDE

For fungicide resistance management FMC Chlorothalonil 720 Fungicide is a Group M5 Fungicide. Some naturally-occurring individual fungi resistant to FMC 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. These resistant fungi will not be controlled by FMC Chlorothalonil 720 Fungicide or 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, FMC Crop Protection Pty Ltd accepts no liability for any losses that may result from failure of FMC Chlorothalonil 720 Fungicide to control resistant fungi.

MIXING

Invert the container several times before opening. Half fill spray vat and with agitation system running, add the required amount of product.

APPLICATION

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.

Dilute Spraying

- Use sprayer designed to apply high volume of water up to the point of run-off and matched to the crop being sprayed.
- 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 and expert advice.
- Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

- Use sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (see Dilute Spraying above) for the 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

1. Dilute spray volume as determined above: for example 1,500L/ha.
2. Your chosen concentrate spray volume: for example 500L/ha.
3. The concentration factor in this example is: 3X (i.e. 1,500L / 500L = 3)

4. If the dilute label rate is 40mL/100L, then the concentrate rate becomes 3 x 40, that is 120ml/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 change as the crop grows.
- For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow Best Practice.

COMPATIBILITY

This product is compatible with wettable powder formulations of the most commonly used fungicides, insecticides and miticides. DO NOT combine with oil-based emulsifiable or flowable pesticides, unless prior experience has shown the combination to be non-injurious to your crop species.

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 oil spray. Oils should not be sprayed on crops treated with this product for at least 10 days after the last spray. Wetting agents have does not improved performance. Under some conditions, certain surfactant can cause plant injury.

PROTECTION OF LIVESTOCK

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

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool, well-ventilated area, out of direct sunlight. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to 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 deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

Refillable Containers (110L and 1000L): Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage

SAFETY DIRECTIONS

Attacks eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Repeated exposure may cause allergic disorders. Sensitive workers should wear protective clothing. When preparing spray and using prepared spray wear cotton overalls buttoned to the neck and wrist, washable hat, 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 on skin immediately wash area with soap and water. If product in eyes, wash out immediately with 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, goggles and contaminated clothing.

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET

For further information on FMC Chlorothalonil 720 Fungicide refer to the Material Safety Data Sheet, (MSDS) which is available from the supplier or from fmccrop.com.au.

WARRANTY

FMC Crop Protection Pty Ltd makes no warranty expressed or implied, concerning the use of this product other than that indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

APVMA Approval No: 68952/59461

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