

# **FUNGICIDE**

ACTIVE CONSTITUENT: 720 g/L CHLOROTHALONIL



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

IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT



3/19

**CONTENTS: 10L TO 1000L** 

APVMA Approval no: 66374/118551

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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 **Smart Chlorothalonil 720 Fungicide** is to be used after shuck fall.

DO NOT tank mix **Smart Chlorothalonil 720 Fungicide** with EC formulations when spraying after shuck fall. DO NOT exceed 3.2 L of **Smart Chlorothalonil 720 Fungicide** per hectare of crop.

## 1. TREE AND VINE CROPS

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 and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Almonds	Shot-hole (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor)	SA, Vic, NSW, WA & Tas only	160 mL / 100 L Apply 2000	-	Apply at bud-swell, bud-burst, pink bud, shuck fall, cap fall. Apply every 10- 14 days. Apply 1-week pre-harvest.
Apricots	Brown rot – Fruit (Monilinia fructicola) Blossom blight (Monilinia laxa)  Shot-hole (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor) Freckle (Venturia carpophila)		L/ha	7	Apply at bud-swell, bud-burst, pink bud, full bloom. Apply no later than 35 days pre-harvest. See also Additional Restraints for stone fruits.  Spray applications later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruit.  Apply at bud-swell, bud-burst, pink bud, shuck fall, cap fall, then every 10-14 days.
Cherries	Brown rot – Fruit (Monilinia fructicola) Blossom blight (Monilinia laxa) Shot-hole (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor	Qld, SA, Vic, NSW, WA & Tas only All States		7	Apply at bud-swell, bud burst, pink bud, early blossom, and full bloom. Apply 3 weeks pre-harvest and 1 week pre-harvest.  Apply at bud-swell, bud burst, pink bud, shuck fall, cap fall, then every 10-14 days. Apply 1-week pre-harvest.
	Transit rot (Rhizopus stolonifer)	All States	-		Apply 1-week pre-harvest.

Nectarines	Shot-hole (Stigmina carpophila)	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. Apply no later than 35 days pre-harvest as unacceptable fruit skin damage may occur. See also Additional Restraints for stone fruits.
	Brown rot – Fruit (Monilinia fructicola) Blossom blight (Monilinia laxa)	All States except Qld			Apply at bud-swell, bud burst, pink bud, early blossom and full bloom. Apply no later than 35 days pre-harvest as unacceptable fruit skin damage may occur. See also Additional Restraints for stone fruits.

Situation and Crop	Disease	State	Rate	WHP	Critical Comments
Peaches	Brown rot - Fruit (Monilinia fructicola) Blossom blight (Monilinia laxa)	All States	160 mL/ 100 L Apply 2000 L/ha	(days)	Apply at bud-swell, pink bud, early blossom and full bloom. Apply no later than 35 days pre-harvest as unacceptable fruit skin damage may occur. See also Additional Restraints for stone fruits.
	Shot-hole (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor)	All States	160 mL/ 100 L Apply 2000 L/ha		Apply at bud-swell and continue at 7-14 day intervals. Apply no later than 35 days pre-harvest as unacceptable fruit skin damage may occur. See also Additional Restraints for stone fruits.
	Leaf curl (Taphrina deformans)	All States	160 mL/ 100 L Apply 2000 L/ha		Apply at bud-swell and continue at 7-14 day intervals. In QLD spray only at bud-swell. Apply no later than 35 days pre-harvest as unacceptable fruit skin damage may occur. See also Additional Restraints for stone fruits.
Grapes Note: russeting of some table grape varieties may occur	Downy mildew (Plasmopara viticola) Bunch rot (Botrytis cinerea)	All States	160 - 210 mL/ 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. <b>Table grapes</b> - russeting of some varieties may occur. Do not apply after cap fall on these varieties.
	Black Spot (Anthracnose) (Elsinoe ampelina)		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 russeting in table grape and dried fruit varieties.

Plums	Brown rot – Fruit (Monilinia fructicola) Blossom blight (Monilinia laxa) (NOT WA)	Qld, SA, Vic, NSW, WA & Tas only	160 mL/ 100 L Apply 2000 L/ha	1	Apply at bud-swell, bud-burst, early blossom, pink bud and full bloom.
	Stone fruit rust (Tranzschelia discolor) Shot-hole (Stigmina carpophila)	All States	160 mL/ 100 L Apply 2000 L/ha		Apply at bud-swell, bud burst, shuck fall and cap fall.

# 2. LEGUMES

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Beans – Broad (Faba)	Chocolate spot (Botrytis fabae) Rust (Uromyces viciae- fabae)	All States	1.4 - 2.3 L/ha	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.
Peanuts	Early leaf spot (Cercospora arachidicola) Late leaf spot (Cercosporidium personatum) Peppery leaf spot (Leptosphaerulina trifolii) Peanut rust (Puccinia arachidis) Net blotch (Didymosphaeria arachidicola)	Qld, WA, NSW, NT only	1.1- 1.8 L/ha	Harvest – NIL Grazing - 21 days	Use higher rate when conditions favour leaf spot or when rust appears.  NSW AND WA ONLY: Commence application when disease first appears and repeat as necessary to maintain control.  QLD ONLY: North and South Burnett — Commence spraying when disease appears and repeat when rain and moist nights are expected.  ATHERTON TABLELAND: Commence application 4-6 weeks after planting and repeat every at 7 — 14 day intervals depending on conditions.
Peas	Downy mildew (Peronospora viciae)	Qld, WA & Tas only	1.1-1.8 L/ha	Harvest - 7 Grazing - 14	Apply at first sign 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.

# 3. VEGETABLES AND FRUIT

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Bananas Do not apply to bananas within 14 days of applying an oil based spray or crop damage will occur	Leaf Spot (Mycosphaerella musicola)	Qld, NSW, WA & NT only	1.8 L/ha	1	For 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.  For South Qld - Spray every 21 days from start of December to end of April.  For NSW - Spray every 21 days from end of November to end of May.
		WA only	1.5 L/ha		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 (Mycosphaerella musae)	Qld, NSW, WA & NT only	3.0 L/ha		Spray schedule same as for control of leaf spot. This product will not eradicate infection already present but will prevent the spread of disease.
Broccoli, Brussels sprouts, Cabbage, Cauliflowers	Ring Spot (Mycosphaerella Brassicicola)	All States	1.8 – 3.5 L/ha	7	Apply at first sign of disease on the leaves or if weather conditions indicate likely incidence of disease. Repeat at 14-day intervals. Use the higher rate if the crop is dense and disease pressure is high.

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Artichoke Globe	Grey Mould (Botrytis cinerea)	All States	1.8 – 2.3 L/ha	1	Apply at 7 – 10 day intervals as required. Use the higher rate if disease pressure is high.
Capsicums Peppers	Grey Mould (Botrytis cinerea) Anthracnose (Colletotrichum acutatum)	All States	1.8 – 2.3 L/ha	1	Apply at 7 – 10 day intervals as required. Use the higher rate if disease pressure is high.
Carrots	Leaf Blight (Alternaria dauci)	All States	1.8 L/ha	7	Commence application as soon as symptoms favour the development of the disease and then spray every 7-14 days.
Celery	Septoria leaf spot (Septoria apiicola)	All States	1.8 L/ha	1	Apply every 7-14 days. Apply also to seedbeds.
	Cercospora early blight (Cercospora apii)	NSW & WA only	1.2 L/ha	1	Apply every 10-14 days.

Curcurbits	Downy mildew	All	1.6 -	1	Apply on a 7 to 14 day
(including Cantaloupe,	(Pseudoperonospora	States	2.5		schedule.
Cucumber, Honeydew,	cubensis)		L/ha		Apply rates towards the higher
Muskmelon,	Gummy stem blight				end of the recommended range
Pumpkin, Squash,	(Didymella bryoniae)				at 7-day intervals when disease
Rockmelon,	Anthracnose				pressure is high. Commence
Watermelon, Zucchini	(Colletotrichum	All			spray program early, at first true
	orbiculare)	States			leaf and before vining or
	Leaf blight				flowering.
	(Alternaria cucumerina)				When used at these rates,
	Target leaf spot				Smart Chlorothalonil 720
	(Cercospora citrullina				Fungicide will suppress
	,				powdery mildew
	Belly rot	All			Suppression of belly rot will be
	(Rhizoctonia solani)	States			obtained where fruit form on soil
	,				when sprayed using the above
					foliar spray programme.

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Endive	Grey mould (Botrytis cinerea)	All States	1.8 - 2.3 L/ha	1	Apply at 7-10 day intervals as required. Use the higher rate if disease pressure is high.
<b>Leeks</b> Shallots	Purple blotch (Alternaria porri)	All States	1.8 - 2.3 L/ha		Apply at first appearance of disease. Repeat at 7-10 day intervals, particularly during wet weather.
Okra	Leaf disease/spot	Qld & WA only	1.8 - 2.3 L/ha		Apply at first appearance of disease. Repeat at 7-10 day intervals, particularly during wet weather.
Onions (excluding spring onions)	Downy mildew (Peronospora destructor)	All States	2.3 L/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.
Potato	Early blight or Target spot (Alternaria solani) Late blight or Irish blight (Phytophthora infestans)	All States	1.1- 1.8 L/ha	-	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.
Rhubarb	Ascochyta leaf spot (Ascochyta rhei)	All States	140 mL/ 100 L Apply 2000 L/ha	7	Apply every 10-14 days.
Radish	Grey mould (Botrytis cinerea)	All States	1.8 - 2.3 L/ha	1	Apply every 7-10 day intervals as required. Use the higher rate if disease pressure is high.

Sweet Corn	Turcicum leaf blight (Exserohilum turcicum)	All States	1.8 - 2.3 L/ha	Apply at first appearance disease. Repeat at 7-10 intervals.	
Tomato	Early blight or Target spot (Alternaria solani) Leaf mould (Fulvia fulva) Grey leaf spot (Stemphylium solani) Botrytis rot or Grey mould (Botrytis cinerea)	All States		Spray at first appearance foliage disease. Spray a intervals. Continue into the season to obtain best reagainst leaf mould and E	t 7-14 day he picking sults
Water Cress	Cercospora leaf spot	Qld & WA only		Apply every 7-10 day int required. Use the higher disease pressure is high	rate if

# 4. MISCELLANEOUS

Situation and 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 (Ascochyta arida)	Qld and WA only	220 mL/ 100 L	-	Apply every 7 days in seedbed application only.

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Turf and Lawns, Bowling greens, Golf courses	Dollar Spot (Sclerotinia homeocarpa)	NSW, SA, Qld, WA, Vic, ACT only	130- 200mL/ 100m <sup>2</sup> in 20-60 L of water	DO NOT CUT OR GRAZE FOR STOCKFOOD	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 turf or lawn is thoroughly dry.
	Brown Patch (Rhizoctonia sp)	All States	130- 200mL/ 100m <sup>2</sup> in 20-60 L of 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 turf or lawn is thoroughly dry.
	Grey Leaf Spot (Stempphylium solani)	NSW, and WA, only	24 L/ha		Apply to leaf as a curative application. Do not irrigate for 24 hours after application.

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

#### **WITHHOLDING PERIODS:**

HARVEST:

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.

Almonds, Potatoes, peanuts (Harvest):

NOT REQUIRED WHEN USED AS DIRECTED

#### **GRAZING:**

Beans, peas - DO NOT GRAZE FOR 14 DAYS AFTER APPLICATION

Peanuts - DO NOT GRAZE FOR 21 DAYS AFTER APPLICATION

Turf: DO NOT GRAZE OR CUT FOR STOCKFOOD

#### LIVESTOCK DESTINED FOR EXPORT MARKETS:

The grazing withholding period only applies to stock slaughtered for the domestic market. Some export markets apply different standards. To meet these standards, ensure that **in addition** to complying with the grazing withholding period, the Export Slaughter Interval is observed before stock are sold or slaughtered.

## **EXPORT SLAUGHTER INTERVAL (ESI) - 63 DAYS**

LIVESTOCK THAT HAVE BEEN GRAZED ON, OR FED TREATED FORAGE, FODDER OR STUBBLE SHOULD BE PLACED ON CLEAN FEED FOR 63 DAYS (9 WEEKS) PRIOR TO EXPORT SLAUGHTER.

### **GENERAL INSTRUCTIONS**

Smart Chlorothalonil 720 is a protectant fungicide for the control of a wide range of disease in fruit and vegetables. For effective disease control a good leaf cover must be achieved before a widespread 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 RATES PER HECTARE:

- Low Volume 200 or more litres per hectare.
- **High Volume** 500 or more litres per hectare.
- Aerial Application 20 litres or more per hectare.
- Mister 75 255 litres per hectare.

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 and flowable formulations of most commonly used fungicides, insecticides and miticides. Unless experience in your area has shown other combinations to be physically compatible and non-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**

GROUP	M5	FUNGICIDE

**Smart Chlorothalonil 720 Fungicide** is a member of the multi-site activity group of fungicides. For fungicide resistance management the product is a Group M5 fungicide. Some naturally occurring individual fungi resistant to the product and other Group M5 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi will not be controlled by this product or other Group M5 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, Crop Smart Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant fungi.

## 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 cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seeds and fertilisers.

Triple-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 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.

For refillable containers: 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 covering mouth and nose. 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.

## **SAFETY DATA SHEET**

Additional information is listed in the Material Safety Data Sheet, which can be obtained from the supplier.

## **CONDITIONS OF SALE**

Crop Smart Pty Ltd shall not be liable for any loss, injury, damage or death whether consequential or otherwise, whatsoever or whosoever arising whether through negligence or otherwise, in connection with the sale, supply, use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Crop Smart Pty Ltd's skill of judgement in the purchasing or using the same and every person using this product does so at his own risk absolutely. No representative of Crop Smart Pty Ltd has the authority to add or alter these.

IN AN EMERGENCY
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POLICE OR FIRE BRIGADE