Product Name: Sabakem Chlorothalonil 900 WG Fungicide

APVMA Approval No.: 89048/128157



Label Name:	Sabakem Chlorothalonil 900 WG Fungicide						
Signal Headings:	POISON						
	KEEP OUT OF REACH OF CHILDREN						
	READ SAFETY DIRECTIONS BEFORE OPENING OR USING						
Constituent Statements:	900 g/kg CHLOROTHALONIL						
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Mode of Action:	GROUP M5 FUNGICIDE						
Statement of Claims: For the control of fungal diseases on almonds, apricots, bananas, carrots, celery, chickpeas, faba beans, grapes, lentils, onions, peaches, peanuts, peas, plums, pot tomatoes and vegetables as per the Directions for Use table.							
Net Contents:	1 kg - 20 kg						
Restraints:	DO NOT mix spraying oils or wetting agents with this product.						
rtodianto.	For all stone fruit except cherries, the following additional restraints apply:						
	DO NOT use oils after bud-swell and during the season Sabakem Chlorothalonil 900 WG Fungicide is to be used after shuck fall.						
	DO NOT tank mix Sabakem Chlorothalonil 900 WG Fungicide with EC formulations when						
	spraying after shuck fall.						
	DO NOT exceed 2.5 kg of Sabakem Chlorothalonil 900 WG Fungicide per hectare of crop.						
Directions for Use:	This section contains file attachment.						
Other Limitations:							

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, Chickpeas, lentils: DO NOT HARVEST FOR 14 DAYS AFTER **APPLICATION**

Beans, Peanuts, Peas: DO NOT GRAZE LIVESTOCK ON TREATED CROPS Potatoes, Peanuts (Harvest): NOT REQUIRED WHEN USED AS DIRECTED

Chickpeas, lentils: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER

APPLICATION

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General Instructions:

This section contains file attachment.

Resistance Warning:

FUNGICIDE RESISTANCE WARNING

GROUP M5 FUNGICIDE

Sabakem Chlorothalonil 900 WG 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 Sabakem Chlorothalonil 900 WG Fungicide 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 Sabakem Chlorothalonil 900 WG Fungicide 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, Sabakem Pty Ltd accepts no liability for any losses that may result from the failure of Sabakem Chlorothalonil 900 WG Fungicide to control resistant fungi.

Precautions:

CAUTION

Enclosed cabs (with closed windows and filters) for airblast application. DO NOT use human flaggers unless they are protected by engineering controls such as enclosed cabs.

Re-entry

Do not allow entry into treated areas until spray has dried. If prior entry is necessary wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

Protections:

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:

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool well ventilated area. DO NOT store for prolonged periods in direct sunlight.

Plastic containers – 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.

Safety Directions:

SAFETY DIRECTIONS

Will damage eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves and face shield and goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves and face shield. If product on skin, immediately wash area with soap and water. If product in eyes, wash out immediately with water. If clothing becomes contaminated with product or wet with spray, remove clothing immediately. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

First Aid Instructions:

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

First Aid Warnings:				
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DIRECTIONS FOR USE

1. TREE AND VINE CROPS

Rate				Critical Comments For all uses in this 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.	
	table, all rates are given for dilute oplication section.	e spraying. Fo	r concentrate sprayir		
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	130 g/ 100 L Apply 2000 L/ha	-	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)		ras omy		7
	Shot-hole (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor) Freckle (Venturia carpophila)				Apply at bud-swell, bud-burst, pink bud, shuck fall, cap fall, 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

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Cherries	Brown rot - Fruit (Monilinia fruclicola) Blossom blight (Monilinia laxa)	Qld, SA, Vic, NSW, WA & Tas only	130 g/ 100 L Apply 2000 L/ha	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 (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor)	All States			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)	1			Apply 1 week pre-harvest
Grapes Note: Russeting of some table grape varieties may occur	Downy mildew (<i>Plasmopara viticola</i>) Bunch rot (<i>Botrytis cinerea</i>)	All States	1.5 – 1.9 kg/ha	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: Russeting of some varieties may occur. Do not apply after cap fall on these varieties.
	Black Spot (Anthracnose) (Eisinoe ampelina)		175 g/ 100 L		If Black Spot has occurred in the vineyard in any of the last 3 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.
Nectarines	Shot-hole (Stigmina carpophila)	All States except Qld	133 g/ 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)				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 (days)	Critical Comments
Peaches	Brown rot- Fruit (Monilinia fructicola) Blossom blight (Monilinia laxa)	All States	130 g/ 100 L Apply 2000 L/ha	7	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 result. See also Additional Restraints for stone fruits.
	Shot-hole (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor)				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 result. See also Additional Restraints for stone fruits.
	Leaf curl (Taphrina deformans)				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 result. See also Additional Restraints for stone fruits.
Plums	Brown rot- Fruit (Monalinia fructicla) Blossom blight (Monilinia laxa)	Qld, SA, Vic, NSW, WA & Tas only	133 g/ 100 L Apply 2000 L/ha	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 (Stigmina carpophila) Stone fruit rust (Tranzschelia discolor)	All States			Apply at bud-swell, bud burst, shuck fall and cap fall. Spray application later than 35 days prior to harvest may result in unacceptable fruit skin damage. See also Additional Restraints for stone fruits.

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	1.2 - 1.9 kg/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, NSW, WA & NT only	900 g – 1.5 kg/ha	-	Use higher rate when conditions favour leaf spot or when rust appears. DO NOT feed peanut vines to livestock. 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 warm moist nights are expected. ATHERTON TABLELANDS: Commence application 4-6 weeks after planting and repeat at 7 - 14 day intervals depending on conditions.
Peas	Downy mildew (Peronospora viciae)	Qld, WA & Tas only	900 g – 1.5 kg/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.

Chickpeas	Ascochyta blight (Aschochyta rabeie)	Qld, NSW, Vic, SA, WA	0.8-1.6 kg/ha	14 (harvest and grazing)	Preplant treatment of Chickpeas or Lentils seed with P-Pickel T will control transmission of Ascochyta and Botrytis.It is therefore advised as part of an overall program to manage these diseases in Chickpeas and Lentils. Foliar applications of Sabakem Chlorothalonil 900WG as indicated below will provide ongoing control of these diseases in these
Lentils	Ascochyta blight (Aschochyta lentis), Grey Mould (Botrytis fabae)	Qld, NSW, Vic, SA, WA			crops. Apply in a minimum total water volume of 100L/ha for ground application and 300L/ha for aerial application. Use the lower application rate in the following circumstances: 1. At the early stage of crop growth when there is less vegetation to cover and band spraying is possible. 2. In low disease pressure situations where there is no history of Ascochyta infection in the paddock or adjacent paddocks and/or seasonal conditions are dry. 3. Where a strict 2 week interval is practiced in higher disease pressure situations. Use the higher application rate in the following circumstances: 1. In high disease pressure where there is an existing infection or infected stubble is present in the paddock of adjacent paddocks and regular rainfall events are occurring. 2. On highly susceptible varieties, especially where the application interval has extended beyond 2 weeks Commence application at 3 to 5 weeks after emergence in Chickpeas and 8 to 10 weeks after emergence in Lentils and make following applications at 2 to 4 week intervals depending on disease presence or prior to rainfall events. Use the shorter spray intervals when: 1. In high disease pressure situations (infection present and regular rainfall events) or 2. When higher susceptible varieties are being grown. The longer spray intervals may be used when: 1. No rain has occurred since the last application or 2. When the higher application rate has been used in the previous application and where the variety has low to moderate susceptibility to Ascochyta or Grey Mould infection. If applying prior to rainfall events: 1. Reapply if 2 or more weeks have elapsed since the last application.

2. Apply Sabakem Chlorothalonil 900WG at 0.8 kg/ha if less than 4 weeks have elapsed since the last application and the variety being grown. 3. Apply Sabakem Chlorothalonil 900WG at 1.6 kg/ha if 4 of more weeks have elapsed since the last application and a highly susceptible variety is being grown or infection is present in the crop.
If Grey Mould is the predominant disease in Lentils and infection pressure is high on a susceptible variety, tank mix or alternate Sabakem Chlorothalonil 900WG WITH A Botrytis specific fungicide such as carbendazim, at critical times such as mid-flowering to mid-pod fill.

3. VEGETABLES AND FRUIT

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Artichoke Globe	Grey Mould (Botrytis cinerea)	All States	1.5 - 1.9 kg/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	Leaf Spot (Mycosphaerella musicola)	Qld, NSW, WA, NT only	1.5 kg/ha		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.
days of applying an		WA only	1.3 kg/ha		For WA: Spray every 10 - 14 days from November to end of May and extend to 14 - 21 days from May to November.
oil based spray or crop damage will occur	Leaf speckle (Mycosphaerella musae)	Qld, NSW, WA, NT only	2.5 kg/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, Cabbages, Cauliflowers	Ring Spot (Mycosphaerella brassicicola)	All States	1.5 – 3.0 kg/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 higher rate if disease pressure is high.
Capsicums Peppers	Grey mould (Botrytis cinerea) Anthracnose (Colletotrichwn ascutatum)		1.5 - 1.9 kg/ha	1	Apply at 7 - 10 day intervals as required. Use the higher rate if disease pressure is high
Carrots	Leaf Blight (Alternaria dauci)		1.5 kg/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)		1.5 kg/ha	1	Apply every 7 - 14 days. Apply also to seed beds
	Cercospora early blight (Cercospora apii) (NSW, WA only)	NSW & WA only	1.0 kg/ha		Apply every 10 - 14 days

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Cucurbits (including Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash, Rockmelon, Watermelon, Zucchini)	Downy Mildew (Pseudoperonospora cubensis) Gummy stem blight (Didymella bryoniae) Anthracnose (Coffetotrichum orbicufare) Leaf blight (Alternaria cucumerina) Target leaf spot (Cercospora citruffina) Belly rot	All States	1.3 – 2.1 kg/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, Sabakem Chlorothalonil 900 WG Fungicide will suppress powdery mildew. Suppression of belly rot will be obtained where fruit form on soil when sprayed
	(Rhizoctonia solani)				using the above foliar spray programme.
Endive	Grey mould (Botrytis cinerea)	All States	1.5 – 1.9 kg/ha		Apply at 7 - 10 day intervals as required. Use the higher rate if disease pressure is high
Leeks, Shallots	Purple blotch (Alternaria porri)				Apply at first appearance of disease. Repeat at 7 - 10 day intervals, particularly during wet weather.
Okra	Leaf diseases/spot	Qld & WA only			Apply at first appearance of disease. Repeat at 7 - 10 day intervals.
Onions (excluding spring onions)	Downy mildew (Peronospora destructor)	All States	1.9 kg/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)		900 g – 1.5 kg/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.
Radish	Grey mould (Botrytis cinerea)		1.5 – 1.9 kg/ha	1	Apply at 7 - 10 day intervals as required. Use the higher rate if disease pressure is high.
Rhubarb	Ascochyta leaf spot (Ascochyta rhei)		120 g/ 100 L Apply 2000 L/ha	7	Apply every 10 – 14 days.
Sweet corn	Turcicum leaf blight (Exserohilum turcicum)		1.5 – 1.9 kg/ha	1	Apply at first appearance of disease. Repeat at 7 - 10 day intervals.

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Tomato	Early blight or Target blight (Alternaria solani) Leaf mould (Fulvia fulva) Grey leaf spot (Stemphylium solani) Botrytis rot or Grey mould (Botrytis cinerea)	All States	1.5 – 1.9 kg/ha	1	Spray at first appearance of the foliage disease. Spray at 7 - 14 day intervals. Continue into the picking season to obtain best results against leaf mould and Botrytis rot.
Watercress	Cercospora leaf spot	Qld & WA only			Apply at 7 - 14 day intervals as required. Use the higher rate if disease pressure is high.

4. MISCELLANEOUS

Situation and Crop	Disease	State	Rate	WHP (days)	Critical Comments
Ornamentals Chrysanth- emums, Geraniums, Iris & other ornamentals	Botrytis, Grey mould, Rust diseases, Septoria and Alternaria leaf spot diseases	All States	80 g/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 & WA only	180 g/100 L	-	Apply every 7 days in seedbed application only.

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

GENERAL INSTRUCTIONS

Sabakem Chlorothalonil 900 WG Fungicide is a protectant fungicide for the control of a range of diseases in fruit and vegetables. For effective disease control a good leaf cover must be achieved before a widespread disease outbreak occurs.

Application

Dilute Spraying

- Use a sprayer designed to apply high volumes 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 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 amount of product specified in the Directions for Use table for each 100 L 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 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.
- 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, 1500 L/ha,
 - 2. Your chosen concentrate spray volume: For example, 500 L/ha,
 - 3. The concentration factor in this example is: $3 \times (i.e. 1500 \text{ L} \div 500 \text{ L} = 3)$,
 - 4. If the dilute label rate is 1 kg/ 100 L, then the concentrate rate becomes 3 x 10, that is 3 kg/ 100 L of concentrate spray.
- The chosen spray volume, amount of product per 100 L 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.

MIXING

Half fill spray vat and with agitation system running, add the required amount of product. Top up with water to the required volume. The product must be kept in suspension at all times by continuous agitation. Where prepared spray mixes have been allowed to stand, thoroughly re-agitate before using.

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 to 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.