



## INTERNATIONAL LABEL TEXT

All country-specific regulations must be observed.

# CHORUS<sup>®</sup> 50 WG

A-8637 C

Pack size:

Registration Number:

### Water Dispersible Granules

**Fungicide** with systemic properties for the control of *Venturia inaequalis*, *Alternaria mali* and *Monilinia* on apples, *Monilinia* spp (blossom and twig blight), *Monilinia* spp (fruit rot) on stone fruits.

### Active Ingredient Content

500 g/kg cyprodinil\* (Chemical class: Anilinopyrimidine=AP)

\* N-(4-cyclopropyl-6-methyl-pyrimidin-2yl)-aniline

### Physical Properties

Tan granules

### First Aid / Antidote

If any indisposition occurs, call a physician and apply First Aid measures as described on page 5. No specific antidote is known. Apply symptomatic therapy.

### Hazard Classification

WHO Class III (The product is unlikely to present any acute hazard in normal use.)

 Green								
KEEP LOCKED UP OUT OF REACH OF CHILDREN. KEEP AWAY from food, drink and animal feeding stuff. WEAR suitable protective clothing.								
<b>Telephone Johnson Controls, Basel, Switzerland: +41 61 696 33 33</b>								

Note: Registration number and pack size must appear on all local labels.  
For more information on the directions for use, refer to the Technical Profile.  
This ILT serves as a basis for local label texts.

**Product Information**

**Mode of Action**

## CHORUS 50 WG (A-8637 C)

Biochemical studies indicate that cyprodinil (and other anilinopyrimidines) affects the synthesis of methionine and the secretion of hydrolytic enzymes from fungal cells. The precise mechanism is still under investigation.

Cyprodinil is not cross-resistant with other fungicide mode of action groups, i.e. it controls resistant populations to prochloraz, mbc's, morpholines, triazoles and dodine.

Cyprodinil interferes in the fungal life cycle, mainly during penetration process and the mycelial growth within the plant tissue.

Cyprodinil shows a good and fast uptake into leaves. It has a good acropetal and translaminar translocation. No basipetal translocation was observed.

CHORUS 50 WG is a water dispersible granule specifically designed and developed for the use in pomefruits and stonefruits providing optimum properties with regard to activity, rainfastness and translocation.

### Spectrum of Activity

In-vitro CHORUS 50 WG showed high activity against plant pathogenic Ascomycetes and Deuteromycetes as well as against some Basidiomycetes. Against all pathogens, cyprodinil is fungistatic.

The in-vivo activity of CHORUS 50 WG for the target pathogens refers to the rates given in the table under Directions for Use.

<b>Good control of:</b>	
<b>Apples</b>	
Venturia inaequalis	Scab
Alternaria mali	Alternaria blotch
Monilinia mali	Blossom blight
<b>Stone fruits</b>	
Monilinia spp.	Blossom and twig blight
Monilinia spp.	Fruit rot

### Directions for Use

Crop	Dis-ease	Dose g product/hl	Dose g product/ha	No. of Applications	Intervals	Timing
Apples	V. inaequalis	30-45	300-450	3-4	7-10 days	preventative use from green tip until end of flowering
		45-75	450-750		-	1-2 days curative use within warning system until end of flowering; protection assured for the following 5 days
	Monilinia mali	100	1500 -3000	2	7-10 days	during flowering
	Alternaria mali	100	1500-3000	1-2	7-10 days	after flowering
Pears	Venturia pirina	45 + 1/2 - 2/3 rate of contact fungicide	450 + 1/2 - 2/3 rate of contact fungicide	3-4	7-10 days	preventative use from green tip until end of flowering
Stone	Monilinia	30	300-450	2-3	7-10 days	during flowering

#### Moderate control of:

##### Apples

Podosphaera leucotricha Powdery mildew

##### Pears

Venturia pirina Scab

#### Limitations

##### Activity

For reliable activity avoid spraying at temperatures higher than 25°C, however CHORUS 50 WG provides excellent activity at low temperatures of 3-10°C. 2 hours drying time is sufficient for reliable activity.

##### Crop tolerance

When used as recommended, CHORUS 50 WG can be applied without risk of phytotoxicity.

#### IPM-Fitness

CHORUS 50 WG can be used in conjunction with disease warning and forecasting system within 2 days after the infection took place. It can be considered safe to beneficials, earthworms, bees and birds. It controls resistant fungus populations to other products and thus contributes to effective disease management. It is a specific and powerful product to control early leaf scab until end of flowering. The novel formulation and packaging concept improves safety to the users and the environment. CHORUS 50 WG is therefore a suitable product for use in IPM programmes.

## CHORUS 50 WG (A-8637 C)

Fruit	spp. (blossom / twig blight)					
	Monilinia spp. (Fruit rot)	50	750-1000	2	7-10 days	pre-harvest

PHI: The following preharvest intervals are recommended:

- Pomefruit 21 days
- Stonefruit 7 days

At local level a different PHI might be approved and as such must appear on the label.

The FRAC AP working group (AgrEvo, Kumiai, SYNGENTA) will define a frame strategy for anilinopyrimidine containing products until July 1997. It is imperative that our SYNGENTA label for CHORUS 50 WG complies with these recommendations. For accurate information please contact Product Management in Basel.

### Application Information

#### Application Technique / Parameters

##### Calibration of Equipment

All application equipment has to be properly calibrated before use with regard to forward speed, flow rate and thorough and even coverage of the whole plant, in particular also of the lower plant parts. Avoid spray drift to non-target sites.

For pomefruits and stonefruits tractorised and knapsack mistblowers are recommended.

**Tractorised Mistblower:** In order to minimise losses by drift and on soil, adjust the airstream with the help of baffle plates to the crop. Treat trees from both sides. Select the forward speed to ensure that all leaves are moved but not harmed. Adapt the spray volume to the tree size, i.e. 300 - 600 l/ha. Avoid higher volumes in order to prevent run-off and to minimise soil contamination. For calculation of the optimum volume of water for a particular orchard, use the Tree-Row-Volume method developed by SYNGENTA. For more information please contact Product Management.

Use hollow cone or flat spray nozzles with a pressure of 5 - 15 bars.

**Knapsack Mistblower:** Run engine always at full speed for best droplet formation. Treat trees from both sides. Make sure that all leaves are moved but not harmed. Do not move the spray lance merely up and down, but in large circular movements. Adapt the spray volume to the tree size. Do not spray less than 100 l/ha. Keep your walking speed steady.

#### Mixing

Make certain that the sprayer is clean. Calculate carefully the required amount of spray mixture in order to prevent any left over in the spray tank after treatments. Do not premix in bulk for more than a day's work. If CHORUS 50 WG is tank mixed with an other product, always pour CHORUS 50 WG first in the tank and as soon as it has completely dissolved, add the other product. However, if a mixing partner is packed in water soluble bags, add first the water soluble bag, and then CHORUS 50 WG.

**Tractorised Mistblower:** Fill 1/3 of the spray tank with clean water, start agitation, add the calculated and measured quantity of product and continue to refill the spray tank with agitation. Continue agitation during mixing and application to maintain a uniform suspension.

When filling the spray tank the filling hose should always be above water level in order to prevent suck back.

**Knapsack Mistblower:** If the spray mixture is prepared in mixing tanks, proceed as described above for tractorised mistblowers. Otherwise, fill half of the sprayer with clean water, add the calculated and measured quantity of product, close the knapsack lid, shake well till a homogeneous spray mixture is achieved, continue to fill the sprayer with water, and shake again.

When filling the spray tank the filling hose should always be above water level in order to prevent suck back.

#### Compatibility

A very wide range of combinations of CHORUS 50 WG with other fungicides and insecticides have been tested. CHORUS 50 WG shows excellent tank mix properties. Where dinitro products are used, e.g. to control fruit setting, they should not be applied closer than 7 days before or after a CHORUS 50 WG treatment, as the risk of phytotoxicity by dinitro might be increased. No cases of incompatibility are known. In case of doubt, a small compatibility test should be carried out previous to application.

#### Sprayer Clean-up Procedure

Flush the sprayer with clean water after application or at the end of the day by spraying the rinsing at a dilution rate of at least 1:10 (spray mixture: rinsing) on the crop. Clean also the filter.

## Safety Aspects

### Precautionary Measures

Keep locked up out of reach of children and other unauthorised persons, and animals.

### Operator Safety

AVOID getting product concentrate and spray mixture in contact with skin, eyes or clothing. DO NOT inhale vapor or spray mist. DO NOT eat, drink or smoke while handling the product or when spraying. Wash hands and face before doing so. If any indisposition occurs, stop work, follow first aid measures as below.

WEAR protective clothing, i.e. during preparation: impermeable gloves, overalls, solid shoes and eyes/face protection, during application: overalls, hat or cap, and solid footwear.

Wash off splashes of concentrate immediately.

AFTER work, wash entire body thoroughly and change clothing. Clean work clothing and protection equipment before re-use.

### First Aid

If poisoning is suspected or indisposition occurs, stop work immediately, apply first aid measures, and call a physician. In case of contact with skin and eyes, wash immediately with plenty of water. Rinse splashes from eyes with abundant fresh and clean water for several minutes. If inhaled move to clean air. If swallowed, repeatedly administer medicinal charcoal in plenty of water. Seek medical advice if a large volume of concentrate was ingested.

Note: Never give anything by mouth to an unconscious patient and do not induce vomiting. Poisoning Symptoms: No case of human poisoning is on record. Under laboratory conditions unspecific poisoning symptoms were observed in rats.

### Environment and Wildlife

Very toxic to daphnids. Toxic to algae and fish. Do not contaminate water used for irrigation or domestic purposes, and water areas such as flowing or stagnant water by the disposal of product wastes. The newly treated areas must not be grazed, no food or feed collected from it, and all livestock is to be kept out.

### Spillage and Leakage

Remove heavily contaminated soil layer and bury in a safe place away from water supplies. Collect up spilt material thoroughly and bury it in a safe place or put it in a waste bin

or in a plastic bag and dispose of on a landfill-site approved for pesticides. Rinse spill area with plenty of water.

Note: Spilt product must not be re-used.

### Product and Container Disposal

Provided there are no legal or other rules and regulations, the following procedure is recommended: Dispose of surplus product on a landfill site approved for pesticides or bury in a safe place away from water supplies. Dilute surplus application mixture, pour it broadcast on fallow land. Dispose of containers made of cardboard, paper or plastic on a landfill site or burn in a safe place. If burned stay out of smoke. Be sure that the smoke or fumes will not damage nearby plants, crops or trees. DO NOT re-use empty containers for any other purpose.

Note: ALWAYS comply with local legal requirements.

### Storage Conditions

Store away from sun and damp, in a well ventilated area apart from food and feed, under lock and key. DO NOT contaminate water, food or feed.

AVOID storage above +35°C.

DO NOT stack containers in piles more than 2 m high, in order to avoid product compaction.

### Shelf-life

The shelf life is:

for temperate climates: at least 3 years

for hot climates: at least 2 years

According to the FAO Guidelines on Good Labelling Practice, if the shelf life as registered under local conditions is 2 years or more, no information on the label is required, unless explicitly requested by the local Registration Authorities; if the shelf life is less than 2 years, then information on storage stability must appear on the label, e.g.:

"at least ..... years from date of manufacturing, in unopened containers."

or

"best use before ..... (date)."

### Legal Aspects

Before applying the product read the use recommendations on the package or the attached package leaflet.

### User's Risk

The user bears the risk for damage resulting from factors beyond the manufacturer's control.

## CHORUS 50 WG (A-8637 C)

Resistant strains of fungal diseases may develop or may exist against which fungicides may not be effective resulting in crop loss. Since the occurrence of such strains cannot be forecast, neither SYNGENTA Crop Protection AG nor its distributors can accept responsibility for any loss or damage caused by failure of fungicides to control resistant strains.

All recommendations for use of the product are based on the current state of the manufacturer's knowledge. Since the manufacturer cannot control the application, use, storage or processing of the product, the manufacturer cannot accept responsibility therefor.

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**Manufacturer:**

**Syngenta Crop Protection AG, Basel, Switzerland**

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