

Read the label before opening the container.

For full particulars, see enclosed leaflet.

KEEP OUT OF REACH OF CHILDREN AND ANIMALS

TALONIL™ 720

South Africa Reg. No: L8935 Act No. 36 of 1947

FRAC FUNGICIDE GROUP CODE: M5

A contact fungicide, suspension concentrate for the control of fungus diseases on crops as listed.

ACTIVE INGREDIENT:

Chlorothalonil (phthalonitrile).....720g/l

Product Information: 072 678 8226
In case of poisoning: 082 446 8946

HAZARD STATEMENTS

- Harmful if inhaled
- Causes eye irritation
- May cause an allergic skin reaction
- May cause respiratory irritation
- Suspected of causing cancer
- Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

- Do not handle until all safety precautions have been read and understood.
- Avoid release to the environment.



WARNING

enviro™
bio-chem

Registration holder: Erintrade CC t/a RT Chemicals

Co. Reg. No: CK2001/036403/23

44 Kerk Street, Lichtenburg NW, South-Africa

Tel: +27 12 006 0063

Web: www.envirobiochem.co.za

Expiry Date:

Batch No:

Date of Manufacture:

UN No. 3082

WARNINGS:

Withholding periods:

This is the minimum period between the last application and harvest or grazing:

Barley	28 days
Beans, Cucurbits, Potatoes and Tomatoes:	3 days
Dry Beans (Except soy-beans)	3 days
Hay (Bean & Groundnut):	42 days
Tree nuts (Almond, pistachio, macadamia, hazelnut, pecan)	90 days
Onions (Dry bulb, garlic, leek, shallot)	14 days

- Important to note:** The recommended withholding period between last application and harvest meets local residue requirements, but may not meet export requirements. Consult relevant importer or exporter regarding MRL and withholding periods applicable.
- May cause an allergic skin reaction
 - Causes eye irritation
 - Harmful if inhaled
 - May cause respiratory irritation
 - Suspected of causing cancer
 - Very toxic to aquatic life with long lasting effects.
 - Keep out of reach of children, uninformed persons and animals.
 - Store under lock and key, in a cool place, away from food and feedstuffs.
 - Prevent contamination of water sources, dams and rivers.
 - **Re-entry:** Do not enter the treated field until the spray deposit has dried unless wearing protective clothing.
 - **Aerial application:** Beans, Groundnuts, Peas and Potatoes only. Notify all the inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow spray drift to contaminate water or adjacent areas.

Although this fungicide has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be effected by factors such as abnormal soil, climactic and storage conditions; quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease against the fungicide concerned as well as by the method, time and accuracy of the application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the fungicide concerned due to failure of the user to follow the label instructions or to the occurrence of conditions that could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS:

- Do not handle until all safety precautions have been read and understood.
- Do not breath dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.
- In case of inadequate ventilation wear respiratory protection.
- IF exposed or concerned: Get medical advice/attention.

- Immediately call a POISON CENTER or doctor/physician.
- If skin irritation or rash occurs: Get medical advice.
- Store in a well-ventilated place. Keep container tightly closed.
- Avoid release to the environment.
- Collect spillage
- Prevent the contamination of food, feedstuff, eating utensils and drinking water.
- Prevent drift of spray mist onto other crops, grazing, rivers, dams or areas not under treatment.
- Triple rinse empty container in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the empty container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsings to the content of the spray tank. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.
- Collect spillage.

RELEVANT SUBSTANCES:

Chlorothalonil 55%

Dodecylbenzene sulfonic acid sodium salt < 1%

Poly (dimethyl siloxane) < 1%

FIRST AID TREATMENT:

INHALATION: Remove person to fresh air and keep comfortable for breathing.

INGESTION: Immediately call a POISON CENTER/doctor/physician. Do NOT induce vomiting.

SKIN CONTACT: Remove/Take off immediately all contaminated clothing. Wash with plenty of water and non-abrasive soap. If skin irritation or rash occurs: Get medical advice.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

RESISTANCE WARNING:

For resistance management, **TALONIL™ 720** is a group code M5 fungicide. Any fungus population may contain individuals naturally resistant to **TALONIL™ 720** and other group code M5 fungicides. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **TALONIL™ 720** or any other group code M5 fungicide.

To delay fungicide resistance:

- Avoid exclusive repeated use of fungicide from the same fungicide group code. Alternate or tank mix with products from different fungicide group codes,
- Refer to individual product labels in fungicide group codes 7, 27, 28, 29, 30 and M.
- Integrate other control methods (chemical, cultural, biological) into disease control programmes.

For specific information on resistance management contact the registration holder of this product.

DIRECTIONS FOR USE: Use only as directed

Compatibility:

- The compatibility of **TALONIL™ 720** with other products will be influenced by the formulation of the products involved as well as the quality of the spray water. Since it is not possible to test all possible combinations, a physical compatibility test should

always be carried out prior to application.

- Always read the relevant product label(s) and adhere to the instructions, warnings and precautions.
- If **TALONIL™ 720** is applied by means of a centre pivot irrigation system, it must not be mixed with any other agrochemical or fertilizer.

Mixing instructions:

- Shake the **TALONIL™ 720** container thoroughly immediately before use.
- Half-fill the spray tank with clean water. Add the required volume of **TALONIL™ 720** to the spray tank.
- If **TALONIL™ 720** is to be tank mixed with other products add the products in the following sequence (as applicable): adjuvant or acidifier, wettable powder, suspension concentrate, emulsifiable concentrate.
- Fill the spray tank with water to the required volume. Agitate the spray mixture continually during mixing and spraying.
- The spray mixture must be sprayed out immediately and not be left in the spray tank for any length of time, e.g. overnight.

General directions:

TALONIL™ 720 must be applied as a full cover spray for the preventative control of the diseases mentioned. Ensure complete coverage of the entire plant (the stems and both surfaces of the leaves).

All spray applications must be made with suitable equipment that is in good working order and correctly calibrated to give the desired coverage of the target plants.

During wet or humid conditions when the disease pressure is more severe, applications must be made more frequently than during drier conditions. Do not exceed a 21 day spray interval.

TALONIL™ 720 is rainfast 15 minutes after the spray deposit has dried. Rainfall of up to 60mm after this period has lapsed will not have a detrimental effect on the efficacy of **TALONIL™ 720** and will not necessitate a re-application.

Aerial application:

For use on Beans, Groundnuts and Potatoes only.

Aerial application of **TALONIL™ 720** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- Volume: A spray mixture volume of 30 - 40ℓ per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- Droplet coverage: 50 to 70 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75% of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.

- Stop spraying if the wind speed exceeds 15km/h.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80% and above) may lead to the following:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - b) damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

Groundnuts:

Aerial application is not a substitute for ground application. It should rather be viewed as a contingency measure when ground applications are impractical due to adverse weather conditions, e.g. very wet conditions. Strictly adhere to all the above requirements for aerial application to ensure successful control. Use a minimum of 50ℓ water/ha.

Centre pivot application:

For use on Potatoes only.

1. TALONIL™ 720 may be applied to potatoes via suitable centre pivot sprinkler irrigation equipment.
2. Operate the centre pivot system and injection equipment using a positive displacement metering pump at normal pressure and ensure that the manufacturer's recommendations are followed.
3. Do not operate the irrigation system without safety valves in order to prevent back siphoning and contamination of the water source.
4. The holding tank and injector should be connected to the discharge side of the irrigation line.
5. TALONIL™ 720 can be injected during the normal irrigation cycle or may be used as a separate application thereafter or when irrigation is not necessary.
6. After the injection cycle is complete, shut off the injector but continue to run the centre pivot until TALONIL™ 720 has been flushed from the system.
7. Do not tank mix TALONIL™ 720 with any other agrochemical or fertilizer.
8. Uniform water application by the centre pivot is essential to ensure that thorough coverage of TALONIL™ 720 over the entire field is obtained.

Warning:

Up to Date potatoes grown under centre pivot irrigation during January to April, especially in the Limpopo Province, are extremely susceptible to late blight (*Phytophthora infestans*). Under these conditions TALONIL™ 720 at full rate (2.75ℓ/ha) should be applied at a maximum of 4-5 day intervals.

Calibration:

Fill the injection tank with water. Operate the centre pivot to calibrate the metering pump at the required setting for 1 circle and measure the time required to complete circle, the amount of water injected during one complete circle and the area (ha) covered. Mix the recommended amount of TALONIL™ 720 for the area to be covered in the same amount of water used during calibration and inject continuously during a revolution of the centre pivot.

DOSAGE RATE RECCOMENDATIONS:

CROP/DISEASE	DOSAGE	REMARKS
BARLEY Barley leaf spotting (<i>Ramularia collo-cygni</i>)	Ground application 1 - 2ℓ/ha	Apply as a preventative spray application. Apply up to two (2) spray applications when weather conditions favour disease development. First application at stem elongation (BBCH 31 – 32) and second application no later than booting stage (BBCH 41 – 49). TALONIL™ 720 should be used as part of a spray program, which should be followed throughout the season.
BEANS Rust (<i>Uromyces Appendiculatus</i>)	Apply in a spray programme every 7 to 10 days as a preventative treatment or at the first sign of infection.	
	0.7 - 1.4ℓ/ha	Dryland: <u>Ground application:</u> Apply the appropriate dosage rate depending on the growth stage of the crop, as a full cover spray in 250 to 500ℓ water/ha.
	0.7 - 1.4ℓ/ha	<u>Aerial application:</u> Apply as above in 30ℓ water/ha.
	1.4ℓ/ha	Irrigated: <u>Ground application:</u> Apply as a full cover spray in 250 to 500ℓ water/ha depending on the crop growth stage.
	1.4ℓ/ha	<u>Aerial application:</u> Apply as above in 30ℓ water/ha. Do not use less than 1.4ℓ TALONIL™ 720 /ha.
DRY BEANS (Except soy-beans) Anthracnose (<i>Colletotrichum lindemuthianum</i>) Ascochyta blight (<i>Ascochyta phaseolorum</i>) Cercospora leaf blotch (<i>Cercospora cruenta</i>) Downy mildew (<i>Phytophthora nicotianae</i>)	Ground application 1.2 - 1.8ℓ/ha	Begin applications at first onset of disease, which may occur as early as 2 – 4 weeks before flowering. Repeat applications at 7 – 10 day intervals. Do not apply more than 3 applications with TALONIL™ 720 during each growing season. For use only on beans to be harvested dry with pods removed.

CROP/DISEASE	DOSAGE	REMARKS
GROUNDNUTS Leaf Spot <i>(Cercospora Species And Phoma Arachidicola)</i> & Botrytis Rot <i>(Botrytis Cinerea)</i>	0.7ℓ/ha	Dryland - Grond application: Low infection: Apply as a preventative full cover spray. Spray in at least 500ℓ water/ha at a high pressure.
	1.5ℓ/ha	Dryland - Grond application: High infection: Increase the dosage rate to 1.5ℓTALONIL™ 720/ha when conditions are favourable for disease development. Spray in 500 to 1 500ℓ water/ha at a high pressure.
	1.5ℓ/ha	Irrigation: Ground application: Apply from the middle of December, approximately 6 to 10 weeks after planting, or earlier if climatic conditions favour the disease. Apply as a full cover spray in 500 to 1 500ℓ water/ha at a high pressure. Repeat at 7 to 14 day intervals.
	1.5ℓ/ha	Aerial application: Apply in at least 50ℓ/ha as recommended under 'Directions for use' above.
TREE NUTS (Almond, pecan, pistachio, hazelnut, macadamia) Blossom blight/ brown rot <i>(Monilinia spp.)</i> Botrytis blight <i>(Botrytis cinerea)</i> Eastern Filbert blight <i>(Anisogramma anomala)</i> Scab <i>(venturia carpophila)</i> Septoria leaf spot <i>(Septoria spp.)</i> Shot-hole <i>(Stigmina carpophila)</i> Stone fruit rust <i>(tranzhelia discolour)</i> Supression only: Alternaria blight <i>(Alternaria alternata)</i>	Ground or aerial application 3.5 ℓ/ha	• Begin applications at beginning of the flowering period followed by an application at full bloom. • Make additional applications as required on 14 – 28 days intervals. • Make 2 – 5 applications with TALONIL™ 720 during each growing season. • Do not apply through irrigation. • Do not apply with oils, other pesticides, surfactants or fertilizers. • Do not apply within one week of an oil-based pesticide application. Shot hole and stone fruit rust: • Apply at budd-swell, bud-burst, pink-bud, shuck-fall and cap-fall with an application interval of at least 10 – 14 days. Blossom blight and scab: • Begin application at pink-bud stage and follow with an application at full bloom. • If weather is still conducive for disease development, another application may be made at petal-fall. NOTE: Use of this product may result in speckling or reddening of the fruit hull (epicarp). This effect is superficial and has not resulted in any change in nut quality.

CROP/DISEASE	DOSAGE	REMARKS
CUCURBITS Downy Mildew <i>(Pseudoperonospora Cubensis)</i> & Anthracnose <i>(Colletotrichum Orbiculare)</i>	1 - 2ℓ/ha	Apply every 7 to 10 days in no less than 500 water/ha as a preventive treatment. Use the higher dosage rate when the weather conditions favour the development of the disease. Ensure full coverage of both surfaces of the leaves.
LAWNS AND TURF Dollar Spot <i>(Sclerotinia Spp.)</i> Brown Patch <i>(Rhizoctonia Spp.)</i> & Fading Out <i>(Helminthosporium Spp.)</i>	350mℓ per 100ℓ water	Preventative treatment: As soon as the conditions favouring the development of the diseases apply the first spray. Apply 10ℓ spray mixture per 100m². Apply follow-up sprays every 7 to 10 days.
	520mℓ per 100ℓ water	Corrective treatment: When the disease is present, apply two sprays within 7 days. Apply follow-up sprays every 7 to 10 days. Apply 10ℓ spray mixture per 100m².
ONION (Green bunching & dry bulb, leek, shallot, garlic)	Ground application	TALONIL™ 720 is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard.
Botrytis leaf blight <i>(Botrytis spp.)</i>	1.3 - 2.6ℓ/ha 2.3 ℓ/ha	Begin applications when weather conditions favour disease development and before disease develop.
Botrytis neck rot suppression <i>(Botrytis spp.)</i>	1.8 - 2.3 ℓ/ha	Use the high rate and a 7 day application interval when heavy dew or rain persist.
Downy mildew <i>(Peronospora destructor)</i>		For Botrytis leaf blight, downy mildew or purple blotch control, repeat applications at 7 day intervals for as long as conditions favour disease development, particularly during wet weather.
Purple blotch <i>(Alternaria porri)</i>		For suppression of neck rot (<i>Botrytis spp.</i>) during storage, apply a minimum of three weekly applications prior to lifting.
		Do not apply more than 3 applications with TALONIL™ 720 during each growing season.

CROP/DISEASE	DOSAGE	REMARKS
TOMATOES Early Blight <i>(Alternaria Solani),</i> Late Blight <i>(Phytophthora Infestans),</i> Leaf Spot <i>(Septoria Lycopersici)</i> Botrytis Rot * <i>(Botrytis Cinerea)</i>	Ground application: Spray as a preventive treatment.	
	100mℓ/100ℓ water	High volume application: Apply 1 000ℓ spray mixture/ha on mature plants. <u>Low disease pressure:</u> Spray every 10 to 14 days. Do not apply less than 1ℓ TALONIL™ 720/ha on mature plants.
	190mℓ/100ℓ water	High volume application: Apply 1 000ℓ spray mixture/ha on mature plants. <u>High disease pressure:</u> Spray every 7 to 10 days. Do not apply less than 2ℓ TALONIL™ 720/ha on mature plants.
	210mℓ/100ℓ water	Low volume application: Apply 500ℓ spray mixture/ha on mature plants. <u>Low disease pressure:</u> Spray every 10 to 14 days. Do not apply less than 1ℓ TALONIL™ 720/ha on mature plants.
	380mℓ/100ℓ water	Low volume application: Apply 500ℓ spray mixture/ha on mature plants. <u>High disease pressure:</u> Spray every 7 to 10 days. Do not apply less than 2ℓ TALONIL™ 720/ha on mature plants.
*NOTE: When Botrytis threatens, apply the higher dosage in each instance on a 7 day schedule.		
POTATOES Early Blight <i>(Alternaria solani)</i> & Late Blight <i>(Phytophthora infestans)</i>	Ground- and aerial application: Apply a preventive spray programme starting when the plants come into fl ower or when climatic conditions favour the disease. Continue applications until the foliage dies back.	
	0.7 - 1.0ℓ/ha	Ground application: Low infection: Apply as a full cover spray in not less than 500ℓ water/ha. Use the lower rate under dry land conditions and repeat applications every 7 days. The higher rate may be used with 10 day spray intervals.
	2ℓ/ha	Ground application: High infection: Apply as above and repeat application every 5 to 7 days. Apply as a full cover spray in not less than 500 to 1 500ℓ water/ha depending on the plant size and foliage density.

CROP/DISEASE	DOSAGE	REMARKS
POTATOES Early Blight (<i>Alternaria solani</i>) & Late Blight (<i>Phytophthora infestans</i>)	1ℓ/ha	Aerial application: Low infection: Apply as above in 30ℓ water/ha.
	2ℓ/ha	Aerial application: Low infection: Apply as above in 30ℓ water/ha.
	2ℓ/ha	Centre pivot application: Start application 2 weeks after emergence and apply at 7 to 10 day spray intervals. Continue application until foliage dies back. (See 'Centre pivot application')
NOTE: TALONIL™ 720 can also be applied in an alternating spray programme with Controller WP (Reg. No. L 6783) for the control of early blight and late blight in potatoes.		