

Dapper 325 SC

South Africa Reg. No: L 11362 Act/Wet No. 36 of/van 1947



A broad-spectrum fungicide with systemic, translaminar and contact activity, formulated as a suspension concentrate, for the control of various diseases on crops as listed.

ACTIVE INGREDIENT

Azoxystrobin (strobilurin) 200 g/ℓ
Difenoconazole (triazole) 125 g/ℓ

FRAC FUNGICIDE GROUP CODE: 11 & 3



WARNING

HAZARD STATEMENTS:

- Harmful if swallowed.
- Causes serious eye irritation.
- May be harmful if inhaled.
- Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

- Obtain special instruction before use.
- Do not handle until all safety precautions have been read and understood.
- Avoid breathing mist, vapours and spray.
- Use only outdoors or in a well-ventilated area.
- Avoid release into the environment.

Registration holder: Green Island Investments (Pty) Ltd.
Co. Reg. No.: 2013/043963/07
P.O. Box 1822, Heidelberg 1438, South Africa
Tel: 078 737 9236

24 HR EMERGENCY NUMBERS

Griffon Poison Information Centre: +27 82 446 8946
24 Hr Transport / Spill emergency no:
(Hazcall24) +27 86 044 4411 (Typhoon Plant Protection)

Distributed by: Typhoon Plant Protection (Pty) Ltd.
Co. Reg. No.: 1998/006156/07, C/O Farm Vlakfontein
Corner of the R23 Benoni Road & R550 Nigel Road
Brakpan District, Heidelberg 1438, Gauteng, South Africa
Tel: 078 737 9236

Net Volume:

ℓ

Expiry Date:
Batch No:
Date of Manufacture:
U.N. No. 3082

 **Typhoon**
PLANT PROTECTION

READ LABEL IN DETAIL BEFORE OPENING THE CONTAINER. FOR FULL PARTICULARS, SEE ENCLOSED LEAFLET.
KEEP OUT OF REACH OF CHILDREN AND ANIMALS.



WARNINGS:

Allow the following withholding periods between the last application and harvest:

Dry beans	45 days
Groundnuts	28 days
Grain sorghum	14 days
Maize, sweetcorn	14 days
Potatoes	14 days
Bulb Vegetables (Chives, garlic, leeks, onions)	7 days

Note: Compliance with these withholding periods will ensure that residues **do not** exceed local Maximum Residue Limits. Consult the relevant exporting body about pre-harvest interval requirements if the crop is intended for the export market.

WARNINGS:**HAZARD STATEMENTS:**

- Harmful if swallowed.
- Causes serious eye irritation.
- May be harmful if inhaled.
- Very toxic to aquatic life with long lasting effects.
- Harmful if swallowed.
- Toxic to fish and harmful to other aquatic organisms.
- May cause long-term adverse effects in aquatic environments.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- **Re-entry: Do not** enter treated area until spray deposit has dried.
- Aerial application: Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. **Do not** spray over or allow drift to contaminate water or adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be effective under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the disease to the remedy concerned, as well as by the method, time and accuracy of 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 remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS:

PRECAUTIONARY STATEMENTS:

- Avoid breathing mist, vapours and spray.
- Wash hands and face thoroughly after handling.
- Wash hands thoroughly after handling. **Do not** touch eyes.
- **Do not** eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release into the environment.
- **Do not** inhale spray mist.
- Avoid contact with skin and eyes.
- Wash with soap and water after use or accidental skin contact.
- In case of eye contact, immediately flush the eyes with clean, cold water.
- Wash contaminated clothing daily.
- **Do not** eat drink or smoke whilst mixing or applying this product or before washing hands and face and changing clothing.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Wear protective clothing (rubber gloves and a face shield) when handling or applying the product.
- Avoid spray drift onto other crops, grazing, rivers or dams.
- Clean applicator thoroughly after use and dispose of rinse water where it will not contaminate crops, grazing, rivers or dams.
- Rinse the empty container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank.
- Destroy the empty container and **do not** use it for any other purpose.
- The triple-rinsed container may be sent to an approved recycling company.

Related ingredients:

Substance name (IUPAC)	CAS - No.	Concentration % By weight
	EC - No.	
Azoxystrobin	131860-33-8	20%
Difenoconazole	119446-68-3	12.5%
1,2-ethandiol	107-21-1	5%

SYMPTOMS OF HUMAN POISONING:

Acute toxicity to this fungicide is expected to be low and no adverse effects from exposure have been reported. Skin contact, ingestion and inhalation are likely routes of exposure.

FIRST AID TREATMENT:

Inhalation: Remove source of contamination or move patient to fresh air. Keep patient under observation and obtain medical attention if necessary.

Skin contact: If irritation occurs, remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists, obtain medical assistance.

Eye contact: Immediately flush the contaminated eyes with gently flowing clean water for 20 minutes, holding the eyelid(s) open until no evidence of chemical remains. If irritation persists, obtain medical assistance.

Ingestion: Have patient rinse mouth thoroughly with water. **Do not** induce vomiting. In severe cases, obtain medical advice immediately.

RESISTANCE MANAGEMENT

For resistance management, **DAPPER 325 SC** is classified as a **Group Code 11** and **3 fungicide**. Any fungus population may contain individuals naturally resistant to **DAPPER 325 SC** and other **Group Code 11** and **3 fungicides**. The resistant individuals can eventually dominate the fungus population if these fungicides are used repeatedly and exclusively in programmes. These resistant fungi may not be controlled by **DAPPER 325 SC** or any other **Group Code 11** and **3 fungicides**.

To delay fungicide resistance:

Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or use in tank mixtures with products from different fungicide group Codes.

Refer to individual product labels when alternating products or when using tank mixtures.

Integrate other control methods (chemical, cultural, biological) into disease control programmes.

General:

- **DAPPER 325 SC** should always be applied preventively as prescribed in the recommendations table.
- **DAPPER 325 SC** must be applied as a full cover spray.
- **Do not** reduce the dosage rates below those recommended on the label.
- Never use **DAPPER 325 SC** as a corrective or curative treatment or after the unsuccessful application of any product.
- When tank mixing or alternating with other fungicides, use mixing partners that provide satisfactory disease control when used alone at the recommended mixing rate.
- For specific information on resistance management contact the distributor or visit the **FRAC** website at <http://www.frac.info/>

DIRECTIONS FOR USE: Use only as indicated.

Compatibility:

DAPPER 325 SC is compatible with most fungicides, insecticides and acaricides, however products containing heavy metals should be avoided. Compatibility will be dependent on the partner formulation and also the water quality. Test small samples of the proposed mixture for physical compatibility before mixing them in the spray tank.

Mixing instructions:

Half fill the spray tank with clean water; add the required volume of **DAPPER 325 SC** and then add the remaining water whilst stirring continuously.

For mixtures, add **DAPPER 325 SC** first, followed by the tank mix partner product unless this is in the form of soluble sachets, in which case these should be added first.

Application:

All applications of **DAPPER 325 SC** must be made with appropriate equipment that is properly calibrated, clean and in good working order. Apply as a full cover spray using the spray volumes as indicated in the relevant tables to ensure good, even coverage of all parts of the plant for maximum efficacy. Avoid spray overlap as crop injury may occur.

Thorough and continuous agitation during application is essential. Ensure that agitation takes place for a few minutes prior to commencement of spraying after normal operational stops e.g. lunch break. **Do not** let the spray mixture stand for long periods of time e.g. overnight.

The application must be repeated if it rains within two hours after application.

Ground Application:

DAPPER 325 SC may be applied with conventional high volume spray equipment that has been calibrated to ensure that the correct dosage is applied and that the distribution of the spray volume will be uniform throughout the target area.

Ensure good coverage of the whole plant (the stems and leaves) by using enough water and suitable spraying equipment. **Do not** apply through any ultra-low volume (ULV) spray system.

Aerial application:

Use only in crops where aerial application is indicated.

Aerial application of **DAPPER 325 SC** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Remedies). It is important to 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 are met:

a) Application parameters:

- **Volume:** A spray mixture volume of 30 - 40 l/ha is recommended. As **DAPPER 325 SC** has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy or be held responsible for any adverse effects if the product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** Droplet coverage of 25 - 35 droplets per cm² must be recovered at the target.

- **Droplet size:** A droplet spectrum with a VMD of 280 - 300 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 - 4 metres above the target. **Do not** spray when aircraft is in a climb, at the top of a turn, during a dive or when banking.
- b) Equipment:
 - Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage but which will ensure the minimum loss of product either through endodrift (within target field) or exodrift (outside target field).
 - The operator must use a setup that will produce a droplet spectrum with the lowest possible Relative Span.
 - All nozzles / atomisers should be positioned within the inner 60% to 75% of the wingspan to prevent droplets from entering the wingtip vortices.
- c) Meteorological conditions:
 - 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 15 km/h or is lower than 5 km/h.
 - Stop spraying under turbulent, unstable and dry conditions during the heat of the day when rising thermals and downdraughts occur.
 - 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:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - Damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
 - Under the following climatic conditions drift could occur up to 3 - 5 km from the nearest spray path of the aircraft:
 - Cloudy weather with relative humidity above 80 % and low air movement of less than 5 km/h.
 - When such conditions prevail, aerial application should **NOT** be carried out where sensitive crops, crop seedlings or deciduous fruit trees e.g. apples in budding or early development stages are present within 5 km of the nearest spray path of the aircraft.

b.) General

Ensure that the aerial spray operator knows which fields to spray.

- Supply the precise identification to the operator of the fields to be sprayed preferably by means of a map or GPS coordinates. Ensure the fields are accurately marked.
- Indicate to the operator adjacent environmentally sensitive areas or sensitive neighbouring crops, beehives or water sources that could be affected by the pesticide.
- Obtain an assurance from the aerial spray operator that the above requirements will be met and that relevant data will be entered in a logbook and kept for future reference.

RECOMMENDATIONS:**DRY BEANS:**

CROP/DISEASE:	DOSE:	REMARKS:
DRY BEANS Anthrachnose <i>(Colletotrichum lindemuthianum)</i> Rust <i>(Uromyces appendiculatus)</i>	Ground application: 500 ml/ha Spray volume: • Tractor application: 250 - 500 ℓ water/ha	• Apply two (2) consecutive sprays 14 days apart starting at flower initiation. • Do not exceed two (2) applications of DAPPER 325 SC per season.

GROUNDNUTS (PEANUTS):

CROP/DISEASE:	DOSE:	REMARKS:
GROUNDNUTS Early leaf spot <i>(Cercospora arachidicola)</i> Web blotch <i>(Phoma arachidicola)</i>	Ground application: 500 ml/ha Spray volume: • Tractor application: 300 - 400 ℓ water/ha	• Apply two (2) consecutive sprays 14 - 21 days apart starting at first signs of disease, or at flower initiation (10 - 12 weeks after planting) if no disease is present. • Do not exceed two (2) applications of DAPPER 325 SC per season.

MAIZE, SWEETCORN, AND GRAIN SORGHUM:

CROP/DISEASE:	DOSE:	REMARKS:
MAIZE, SWEETCORN and GRAIN SORGHUM Grey leaf spot <i>(Cercospora spp.)</i> Northern corn leaf blight <i>[Setosphaeria (=Exserohilum) (=Helminthosporium) turcicum]</i> Rust <i>(Puccinia sorghi)</i>	Ground and aerial application: 500 - 1000 ml/ha (Use the lower rate of 500 ml/ha, for maize and sweetcorn) Spray volumes: • Tractor application: 250 - 450 ℓ water/ha • High clearance tractor application: 150 - 300 ℓ water/ha • Aerial application: 30 - 40 ℓ water/ha • Knapsack sprayer application: 60 - 70 ℓ water/ha	• Start application before 3 % of the total leaf area shows disease symptoms OR as soon as symptoms appear on the basal 3 - 5 leaves. • In all cases, but particularly with northern leaf blight, it is vitally important that applications are purely preventive, i.e. applications must be made in good time for effective disease control. • Apply at 21 - 28 day intervals. Use the shorter application interval if disease pressure is very high. • In certain cases where the initial application was applied at a very early stage, a third application may be made. • In the case of short season hybrids, when the first spray was applied after pollination, this will probably be sufficient to control the disease and further sprays may not be necessary. • Do not apply more than three (3) sprays of DAPPER 325 SC per season

POTATOES:

CROP/DISEASE:	DOSE:	REMARKS:
POTATOES Early blight <i>(Alternaria solani)</i>	Ground and aerial application: 375 ml/ha Spray volume: • Tractor application: 250 - 750 l water/ha • Aerial application: 30 - 40 l water/ha	• Apply in blocks of two (2) consecutive sprays 7 - 10 days apart when the weather favours disease development. • Alternatively, applications can be repeated at 14 day intervals, provided that these applications are alternated every 7 days with other products registered for early blight control. • DAPPER 325 SC alternated with CHLOROTHALONIL 500 SC or 720 SC in a 7 day cycle will also control late blight (<i>Phytophthora infestans</i>) preventively. • Due to reduced efficacy, aerial application is only recommended when prevailing conditions preclude application by tractor. • Do not exceed six (6) applications of DAPPER 325 SC per season.

BULB VEGETABLES (Chives, garlic, leeks, onions):

CROP/DISEASE:	DOSE:	REMARKS:
BULB VEGETABLES (Chives, garlic, leeks, onions) Botrytis leaf blight <i>(Botrytis spp.)</i> Cercospora leaf spot <i>(Cercospora spp.)</i> Powdery mildew <i>(Leveillula taurica)</i> Purple blotch <i>(Alternaria porri)</i> Stemphyllium leaf blight <i>(Stemphyllium vesicarium)</i>	Ground application: 500 - 1000 l water/ha Spray volume: • Tractor application: 250 - 1000 l water/ha	Apply as part of a protectant programme before disease occurs when conditions are conducive for disease development. Apply as part of a 7 to 10 days spray schedule. Do not apply more than one (1) application of DAPPER 325 SC before following up with products with a different mode of action. Do not exceed four (4) applications of DAPPER 325 SC per season. Apply with an adequate water volume to ensure complete coverage. DAPPER 325 SC can be used in a spray programme with other registered products not containing azoxystrobin or difenoconazole.