

# Maxim<sup>®</sup> Quattro

syngenta.

Reg. No. L9494 Act No. 36 of 1947

GROUP	1	FUNGICIDE
	11	
	12	
	4	

A flowable concentrate seed treatment fungicide for the control of seed- and soil-borne diseases in crops as indicated.

EMERGENCY TEL NO.:  
+27 82 446 8946 (Griffon)

**Active Ingredients:**  
thiabendazole (benzimidazole)..... 300 g/l  
azoxystrobin (strobilurin)..... 15 g/l  
fludioxonil (phenylpyrrole)..... 37,5 g/l  
metalaxyl-M (phenylamide)..... 30 g/l



WARNING

**Hazard statements:** Very toxic to aquatic life with long-lasting effects.

**Precautionary statements:** Avoid breathing mist or vapours. Wear protective gloves.

**Response:** If skin irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash it before re-use. Collect spillage.

**Storage:** Store locked-up. **Disposal:** Dispose of contents/container to an approved waste disposal plant.

UN 3082

Product names marked ® or ™, the ALLIANCE FRAME, the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company

Registration holder  
**Syngenta South Africa (Pty) Ltd**  
Co. Reg. No. 1998/013761/07  
Private Bag X 60  
HALFWAY HOUSE, 1685  
Tel.: +27 11 541 4000

## 1. WARNINGS:

**Hazard statements:** Very toxic to aquatic life with long-lasting effects.

**Withholding periods:** Minimum number of days between last application and harvest.

**CUCURBITS**..... 3 days  
**GRAIN SORGHUM**..... 14 days  
**MAIZE, SWEETCORN**..... 14 days

**NOTE:** Compliance with these withholding periods will ensure that residues do not exceed local maximum residue limits.

- May be harmful if swallowed or inhaled.
- May cause allergic skin reaction.
- Toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.
- Treated seeds should be sown properly and be completely covered by soil. Excess seeds are not to be used as food for birds or other animals.
- Keep away from food, feed, drink and animal feeding stuff.
- Keep locked-up and out of reach of children, uninformed persons and animals.

Although this remedy 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 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 weed against 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 and the environment, or harm to people or animals 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, that could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

## 2. PRECAUTIONS:

**Precautionary statements:** Avoid breathing mist or vapours. Wear protective gloves. **Response:** If skin irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash it before re-use. Collect spillage. **Storage:** Store locked-up. **Disposal:** Dispose of contents/container to an approved waste disposal plant.

- To avoid risks to man and the environment, follow the use instructions.
- Avoid contact with skin or eyes and wear suitable protective clothing, gloves and eye or face protection.
- Do not apply this product in a way that will contact workers or other persons, either directly or through drift.
- Seed treatment should be done in a well-ventilated area.
- Do not eat, drink, or smoke while handling the product.
- Prevent contamination of food, feed, drinking water and eating utensils.
- If any indisposition occurs, stop work, follow first aid measures and call a doctor.
- After use, thoroughly clean protective equipment, wash yourself and change clothing. Wash contaminated clothing before re-use.
- Destroy empty container in the prescribed manner and do not use for any other purpose.

## First Aid and Medical Treatment

**General:** Have the product container, label or material safety data sheet (MSDS) with you when calling a poison control centre, doctor, or going for treatment.

- **Inhalation:** Move the patient to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and calm. Call a poison control centre or doctor immediately.
- **Skin contact:** Immediately take off all contaminated clothing. Immediately wash with plenty of water. If skin irritation persists, call a doctor. Wash contaminated clothing before re-use.
- **Eye contact:** Immediately rinse with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

- **Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.

### 3. RELEVANT SUBSTANCES:

Chemical name	
1,2-benzisothiazol-3(2H)-one	
Classification	Concentration (% w/w)
Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411  M-Factor (Acute aquatic toxicity): 1	0,0025 - < 0,025
Chemical name	
2-methylisothiazol-3(2H)-one	
Classification	Concentration (% w/w)
Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410  M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	0,0002 - < 0,0015

### 4. PRODUCT INFORMATION:

**MAXIM QUATTRO** is a light, red-opaque liquid that is used as a seedcare fungicide for the control of seed-borne and soil-borne diseases such as: *Fusarium* spp.; *Rhizoctonia* spp.; *Pythium* spp. and *Penicillium* spp. in cucurbits, maize, sorghum and sweetcorn.

#### Mode of Action

- The overlapping activity of the active ingredients in this product and the fact that all of them have different modes of action minimises the risk of resistance built up.
- Fludioxonil (phenylpyrrole) is a contact fungicide with residual activity that affects the osmotic signal transduction and thereby disturbs water uptake, cell membrane transport processes and cell wall synthesis. These processes are important for spore germination and mycelia growth which are impaired by Fludioxonil.
- Metalaxil-M (Mefenoxam, phenylamide) inhibits the RNA synthesis. This results in the prevention of spore production and inhibition of mycelia growth. Mefenoxam is active on fungi of the oomycete class, including *Pythium* spp., *Phytophthora* spp. and certain downy mildews. It is highly systemic and taken up by the plant rapidly after germination. Translocation of the compound is mainly acropetale. It acts curative as well as protective.
- Azoxystrobin (strobilurin) is a QoI fungicide that inhibits cellular respiration and energy generation. It is a systemic broad spectrum fungicide most active at stages of the fungal spore germination or zoospore mobility.
- Thiabendazole (benzimidazole) inhibits tubulin

biosynthesis and therefore cell division.

### 5. RESISTANCE MANAGEMENT:

Follow established resistance management guidelines on a crop by crop basis. **MAXIM QUATTRO** is a group code 1, 4, 11 and 12 seed treatment fungicide. Any fungus population may contain individuals naturally resistant to fungicide products in group code 1, 4, 11 and/or 12.

#### To delay fungicide resistance:

- Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or mix with products from different fungicide group codes.
- Refer to individual product labels when alternating products or when using tank mixtures with products.
- Integrate other control methods (chemical, cultural, biological) into disease control programs.

For specific information on resistance management contact the registration holder of this product (Syngenta South Africa) or visit the FRAC website at <http://www.frac.info/frac/index.html>.

### 6. DIRECTIONS FOR USE: Use only as indicated.

#### 6.1 Mixing Instructions

- Apply **MAXIM QUATTRO** as a water-based slurry using seed treatment application equipment that will provide uniform coverage on the seed surface. Consult the manufacturer of the application equipment being used for calibration and operation procedures.
- Treated seeds shall be labelled with the following information: **“This seed has been treated with fludioxonil, mefenoxam, azoxystrobin and thiabendazole fungicides”**.
- Treatment of mechanically scarred or damaged seed, or seed known to be of low vigour and poor quality, may result in reduced germination and/or reduction of seed and seedling vigour.

#### 6.2 Application

- When using **MAXIM QUATTRO** in a tank mixture with other seed treatment products, observe all directions for use, crops or sites, use rates, dilution ratios, precautions and limitations that appear on the tank-mix partner label(s).
- No label dosage may be exceeded and the most restrictive label precautions and limitations must be followed.
- This product must not be mixed with any product that prohibits mixing.
- All applications must be made according to label recommendations.
- Treated seed should be planted and not carried over to the following year.

#### 6.2.1 Mechanical Seed Treatment Equipment

- **MAXIM QUATTRO** can be applied on any continuous flow seed treatment equipment that will provide uniform coverage on the seed surface.
- Rotating drums or fluidised bed systems for film coating procedures are also recommended.

- It is essential that any continuous flow seed treatment equipment should be calibrated with **MAXIM QUATTRO**, as flow characteristics may not be the same as for other seed treatment products.

### 6.2.2 Preparation of the Slurry

When used diluted, the following procedures should be followed for preparing the slurry:

- Fill the mixing tank with the correct amount of water.
- Shake the product container before use.
- Add the required quantity of **MAXIM QUATTRO** while stirring continuously as specified in section 6.1.
- Maintain agitation of the slurry during the entire time of use.
- Use a total slurry volume of between 5 - 12 l/ton seed (0.5 - 1.2 l/100 kg seed).
- The slurry has to be used within 24 hours after preparation.

### 7. RECOMMENDATIONS:

For the best results, study the sections under 5 and 6 thoroughly.

#### CUCURBITS

(Cucumber, squash, patty pan and gem squash)

Disease	Dosage
<b>Seed- and soil-borne fungi causing decay, damping-off and seedling blight</b> ( <i>Fusarium</i> spp.) ( <i>Phytophthora</i> spp.) ( <i>Rhizoctonia</i> spp.)	0.00017 ml/seed (0.065 mg a.i./seed)

#### GRAIN SORGHUM

Disease	Dosage
<b>Seed- and soil-borne fungi causing decay, damping-off and seedling blight</b> ( <i>Fusarium</i> spp.) ( <i>Phytophthora</i> spp.) ( <i>Rhizoctonia</i> spp.)	61.8 ml/100 kg seed

#### MAIZE

Disease	Dosage
<b>Seed- and soil-borne fungi causing decay, damping-off and seedling blight</b> ( <i>Fusarium</i> spp.) ( <i>Phytophthora</i> spp.) ( <i>Rhizoctonia</i> spp.)	0.00017 ml/seed (0.065 mg a.i./seed) or 10.2 ml/60 000 seeds 11.9 ml/70 000 seeds 13.6 ml/80 000 seeds 15.3 ml/90 000 seeds
<b>Remarks</b>	
<b>MAXIM QUATTRO</b> is compatible with AVICTA 500 FS (L9258), CRUISER (L6288) and CRUISER WHITE (L7546) for maize seed treatment.	

#### SWEETCORN

Disease	Dosage
<b>Seed- and soil-borne fungi</b>	0.00017 ml/seed

#### SWEETCORN cont.

Disease	Dosage
<b>causing decay, damping-off and seedling blight</b> ( <i>Fusarium</i> spp.) ( <i>Phytophthora</i> spp.) ( <i>Rhizoctonia</i> spp.)	(0.065 mg a.i./seed) or 10.2 ml/60 000 seeds 11.9 ml/70 000 seeds 13.6 ml/80 000 seeds 15.3 ml/90 000 seeds

**MAXIM QUATTRO**<sup>®</sup>, **AVICTA 500 FS**, **CRUISER** and **CRUISER WHITE** are registered trade marks of a Syngenta Group Company. **MEFENOXAM**<sup>™</sup> is the trade mark for metalaxl-M (ISO general name).

© **SYNGENTA AG, 2000**. Copyright of this document is reserved. Any unauthorised reproduction is forbidden.