

7. RATES

Crop and disease	Method and rate of application	Volume of application per 100 m ²	Target amount of fungicide per 100 m ²	Remarks
Tobacco seedbeds (Alternaria) TRB Cert. No.: 11-14-B-56. Consult TRB handbook for detailed instructions.	High Volume Sprays: 150 ml/10 litres of water	Spray No. 2: 2 litres	30 ml	Start spraying with a contact fungicide 6 weeks after sowing. Apply no more than 3 Ortiva® sprays. Alternate with contact fungicides and bactericides. Apply 1 week after a contact spray.
		Spray No. 4: 4 litres	60 ml	
	Ultra Low Volume Sprays: 75 ml/litre of water	Spray No. 6: 6 litres	90 ml	As above.
		Spray No. 2: 400 ml	30 ml	
		Spray No. 4: 400 ml	60 ml	
		Spray No. 6: 600 ml	90 ml	

CROP	DISEASE	DOSAGE	REMARKS
Tobacco lands	Alternaria	1 litre/ha	Apply a maximum of two sprays at 14 days intervals beginning at 6-8 weeks after planting. Change to another product with a different mode of action e.g. Score® 250 EC on the third spray.
Hypericum flowers	Rust (<i>Melampsora hypericorum</i>)	800 ml/ha (80 ml/100 litres water)	Start spraying before onset of disease. Repeat every 1-2 weeks. Use shorter interval in wet, humid conditions. Ensure good coverage of leaves.

L158337 ZIMB/05P - PPE 341012



syngenta®

Reg. No.: 00-B-73-1

5 Litres



CAUTION

HARMFUL IF SWALLOWED

COMPOSITION: (m/v)
Azoxytrobin 250 g / litre
Inert ingredients up to 1 litre
Chemical group: strobilurin

A SUSPENSION CONCENTRATE CONTACT AND SYSTEMIC BROAD SPECTRUM FUNGICIDE FOR THE CONTROL OF ALTERNARIA IN TOBACCO SEEDBEDS AND LANDS AND FUNGAL DISEASES IN FLOWERS AS LISTED.

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BEFORE YOU OPEN THE CONTAINER, READ THE ENTIRE LABEL.

TO CAUSE A HAZARD IN THE USE, STORAGE OR DISPOSAL OF THIS SUBSTANCE IS AN OFFENCE.

Registered by:
Syngenta Agro Services
P.O. Box 1088, Harare
Suite Za, Julia's Parade
Sam Levy's Village
Borrowdale, Tel.: 0772 402 477

Emergency Call Number:
Syngenta Alarm Centre
Huddersfield, UK
Tel.: +44 1484 538 444
Fax: +44 1484 554 093

Shelf Life:
Minimum 2 years if stored in a cool dry place in original unopened container.

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



TM



Retirez s'il vous plait avant l'impression. Por favor, eliminar antes de imprimir.

SAFETY PRECAUTIONS

Do not eat, drink, or smoke while using this product.

FOR SAFETY WHEN MIXING

- **Wear eye protection** (at least glasses). Undiluted ORTIVA® may irritate your eyes. If you get it in your eyes, wash it out at once. **See First Aid.**
- **Wear synthetic rubber gloves.** Undiluted ORTIVA® may irritate your skin. If you get it on your skin, wash it off at once. If you spill it on your clothes, change and wash them immediately.
- After emptying container, rinse it three times adding washings to the spray tank.

FOR SAFETY WHEN SPRAYING

- As with all chemicals, avoid contact with the spray as much as you can.
- To avoid harming fish, do not spray over water.
- Dispose of unwanted spray solution by spraying off on waste ground.

FOR SAFETY AFTER SPRAYING

- Dispose of empty rinsed container by crushing or cutting, then burning or burying. Do not use for any other purpose.
- Do not dump unwanted ORTIVA® in water.
- **Wash yourself.** Change and wash your work clothes.
- Keep unused ORTIVA® in original container, tightly closed, **locked up out of reach of children** and away from food.

FIRST AID

EYE SPLASHES: Hold eyelids apart and pour in a gentle stream of water for 10 to 15 minutes. Go to a doctor.

SKIN CONTACT: Wash with water followed by soap and water. Go to a doctor if skin is affected.

If ORTIVA® is **SWALLOWED**, do not make the person vomit. Take person, and this container, to a DOCTOR AT ONCE.

NOTE TO PHYSICIAN: If gastric lavage is performed, take care to prevent aspiration of gastric contents. Consider administration of activated charcoal and a laxative. Treat symptomatically.

SYMPTOMS OF POISONING: There are no specific symptoms of poisoning known for this compound. It is expected that, following ingestion, nausea, vomiting, diarrhea and abdominal pain may occur.

ANTIDOTE: There is no specific antidote.

DIRECTIONS FOR USE.

1. WARNINGS

PRE HARVEST INTERVAL

Minimum number of days between last application and harvesting:
flowers: 3 days; tobacco seedlings: 7 days.

2. COMPATIBILITY

ORTIVA® is compatible with most insecticides and fungicides. As compatibility can be adversely affected by the quality of the water used in the mixture, the manufacturer recommends that a trial mixture be done using the water intended for spraying.

3. MIXING

Half fill the sprayer tank with clean water. Shake the ORTIVA® container well. Add the recommended volume of ORTIVA® to the water while agitating. Top up tank with required volume of water.

4. DESCRIPTION

ORTIVA® is a broad spectrum contact, systemic and translaminar fungicide. ORTIVA® prevents spore germination, early fungal growth and sporulation. For best results ORTIVA® should be applied preventatively in blocks of 2 sprays. For disease resistance management the 2 sprays of ORTIVA® should be separated by at least 2 fungicide sprays from a different chemical group.

5. APPLICATION

In all cases apply as a full cover preventative spray. Avoid run-off. Spray intervals: 5-14 days. Short intervals are for wet/humid conditions. Long intervals can be followed under dry conditions.

6. DISCLAIMER:

All products supplied by Syngenta Agrochemicals are to be used only in accordance with the recommendations and instructions given on the labels provided with this pack. Further, although it is believed that all products supplied by us are of high quality and are suitable, for the purposes indicated on the label, since we cannot exercise control over the every day use of products, we do not give any warranty, whatsoever as to their quality and fitness for purposes and we will not accept any responsibility whatsoever for damage arising from the storage, handling, application or use of our products.

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Registered by: Syngenta Agro Services

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****Product name** : ORTIVA 250 SC**Design code** : A12705A**1.2 Relevant identified uses of the substance or mixture and uses advised against****Use** : Fungicide**1.3 Details of the supplier of the safety data sheet****Company** : Syngenta Crop Protection AG
Postfach
CH-4002 Basel
Switzerland**Telephone** : +41 61 323 11 11**Telefax** : +41 61 323 12 12**E-mail address** : sds.ch@syngenta.com**1.4 Emergency telephone number****Emergency telephone number** : +44 1484 538444**SECTION 2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Classification according to Regulation (EU) 1272/2008

Acute aquatic toxicity Category 1 H400

Chronic aquatic toxicity Category 1 H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

N, Dangerous for the environment**R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**

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2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms



Signal word	:	Warning	
Hazard statements	:	H410	Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P273 P391 P501	Avoid release to the environment. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.
Supplemental information	:	EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Hazardous components which must be listed on the label:

Labelling: EU Directives 67/548/EEC or 1999/45/EC

Symbol(s)



**Dangerous
for the envi-
ronment**

R-phrases(s)	:	R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	:	S 2 S13 S20/21 S35 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Use appropriate container to avoid environmental contamination.
Additional Labelling	:	To avoid risks to man and the environment, comply with the instructions for use.	

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2.3 Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration
azoxystrobin	131860-33-8	T, N R23 R50/53	Acute Tox.3; H331 Aquatic Acute1; H400 Aquatic Chronic1; H410	22.9 % WW
propane-1,2-diol	57-55-6 200-338-0	-	-	10 - 20 % WW
naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methyl-naphthalenesulfonic acid, sodium salt		Xi R36/38	Eye Irrit.2; H319 Skin Irrit.2; H315	1 - 5 % WW

Substances for which there are Community workplace exposure limits.

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

- General advice** : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.
- Inhalation** : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control centre immediately.
- Skin contact** : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.

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- Eye contact** : Rinse immediately 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.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms** : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Medical advice** : There is no specific antidote available.
Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES**5.1 Extinguishing media**

Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray

Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

5.3 Advice for firefighters

Wear full protective clothing and self-contained breathing apparatus.

Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.

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Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

If the product contaminates rivers and lakes or drains inform respective authorities.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

Refer to disposal considerations listed in section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

No special protective measures against fire required.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

No special storage conditions required.

Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep out of the reach of children.

Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
azoxystrobin	2 mg/m ³	8 h TWA	SYNGENTA
propane-1,2-diol	10 mg/m ³ (Particulates) 150 ppm, 470 mg/m ³ (Total (vapour & particulates))	8 h TWA 8 h TWA	UK HSE UK HSE

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

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8.2 Exposure controls

- Engineering measures** : Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.
The extent of these protection measures depends on the actual risks in use.
If airborne mists or vapors are generated, use local exhaust ventilation controls.
Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.
Where necessary, seek additional occupational hygiene advice.
- Protective measures** : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.
Personal protective equipment should be certified to appropriate standards.
- Respiratory protection** : No personal respiratory protective equipment normally required.
A particulate filter respirator may be necessary until effective technical measures are installed.
- Hand protection** : Chemical resistant gloves are not usually required.
Select gloves based on the physical job requirements.
- Eye protection** : Eye protection is not usually required.
Follow any site specific eye protection policies.
- Skin and body protection** : No special protective equipment required.
Select skin and body protection based on the physical job requirements.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Physical state** : liquid
- Form** : suspension
- Colour** : off-white to yellow-orange
- Odour** : Chemical
- Odour Threshold** : no data available
- pH** : 6 - 8 at 1 % w/v
(aqueous suspension)
- Melting point/range** : no data available
- Boiling point/boiling range** : no data available
- Flash point** : > 100 °C
- Evaporation rate** : no data available
- Flammability (solid, gas)** : no data available
- Lower explosion limit** : no data available
- Upper explosion limit** : no data available
- Vapour pressure** : no data available
- Relative vapour density** : no data available
- Density** : 1.10 g/cm³ at 20 °C
- Solubility in other solvents** : no data available

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Partition coefficient:	: no data available
n-octanol/water	
Auto-ignition temperature	: 640 °C
Thermal decomposition	: no data available
Viscosity, dynamic	: 100 - 1,854 mPa.s at 20 °C
	: 77 - 1,635 mPa.s at 40 °C
Viscosity, kinematic	: no data available
Explosive properties	: Not explosive
Oxidizing properties	: not oxidizing

9.2 Other information

Miscibility	: Miscible
Surface tension	: 36.5 mN/m at 20 °C

SECTION 10. STABILITY AND REACTIVITY**10.1 Reactivity**

No information available.

10.2 Chemical stability

No information available.

10.3 Possibility of hazardous reactions

None known.
Hazardous polymerisation does not occur.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute oral toxicity	: LD50 male and female rat, > 5,000 mg/kg
Acute inhalation toxicity	: LC50 male and female rat, > 6.32 mg/l , 4 h
Acute dermal toxicity	: LD50 male and female rat, > 2,000 mg/kg
Skin corrosion/irritation	: rabbit: Non-irritating
Serious eye damage/eye irritation	: rabbit: Non-irritating
Respiratory or skin sensitisation	: guinea pig: not sensitizing

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- Germ cell mutagenicity
azoxystrobin : Did not show mutagenic effects in animal experiments.
- Carcinogenicity
azoxystrobin : Did not show carcinogenic effects in animal experiments.
- Reproductive toxicity
azoxystrobin : Did not show reproductive toxicity effects in animal experiments.
- STOT - repeated exposure
azoxystrobin : No adverse effect has been observed in chronic toxicity tests.

SECTION 12. ECOLOGICAL INFORMATION**12.1 Toxicity**

- Toxicity to fish** : LC50 Oncorhynchus mykiss (rainbow trout), 1.2 mg/l , 96 h
: LC50 Cyprinus carpio (Carp), 2.8 mg/l , 96 h

- Toxicity to aquatic invertebrates** : EC50 Daphnia magna (Water flea), 0.83 mg/l , 48 h

- Toxicity to aquatic plants** : EbC50 Selenastrum capricornutum (green algae), 0.71 mg/l
: ErC50 Selenastrum capricornutum (green algae), 2.2 mg/l

12.2 Persistence and degradabilityBiodegradability

- azoxystrobin : Not readily biodegradable.

Stability in water

- azoxystrobin : Degradation half life: 214 d
The substance is stable in water.

Stability in soil

- azoxystrobin : Degradation half life: 80 d
Not persistent in soil.

12.3 Bioaccumulative potential

- azoxystrobin : Does not bioaccumulate.

12.4 Mobility in soil

- azoxystrobin : Azoxystrobin has low to very high mobility in soil.

12.5 Results of PBT and vPvB assessment

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azoxystrobin : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

None known.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Product : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**Land transport (ADR/RID)**

14.1 UN number: UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9
14.5 Environmental hazards : Environmentally hazardous

Sea transport(IMDG)

14.1 UN number: UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9
14.5 Environmental hazards : Marine pollutant

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Air transport (IATA-DGR)

14.1 UN number: UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
 Labels: 9

14.6 Special precautions for user

none

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

GHS-Labeling

Hazard pictograms



Signal word : Warning
Hazard statements : H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements : P273 Avoid release to the environment.
 P391 Collect spillage.
 P501 Dispose of contents/ container to an approved waste disposal plant.
Remarks : Classified using all GHS hazard classes and categories.
 Where the GHS contains options, the most conservative option has been chosen.
 Regional or national implementations of GHS may not implement all hazard classes and categories.

Hazardous components which must be listed on the label:

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15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16. OTHER INFORMATION**Further information**

Full text of R-phrases referred to under sections 2 and 3:

R23	Toxic by inhalation.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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