

UNIFORM 446 SE

Version 2 - This version replaces all previous versions.

Revision Date 08.11.2013

Print Date 21.01.2014

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**Product name : **UNIFORM 446 SE**

Design code : A13836B

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 tele-
phone number** : +44 1484 538444

SECTION 2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Classification according to Regulation (EU) 1272/2008

Acute toxicity (Oral)	Category 4	H302
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

Xn, Harmful

N, Dangerous for the environment

R22: Harmful if swallowed.

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 : H302 Harmful if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : P102 Keep out of reach of children.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P391 Collect spillage.
P501 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:

- metalaxyl-M

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

Symbol(s)

**Harmful****Dangerous
for the envi-
ronment**

R-phrases(s) : R22 Harmful if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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S-phrases(s)	:	S 2 S13 S20/21 S35 S46 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. If swallowed, seek medical advice immediately and show this container or label. Use appropriate container to avoid environmental contamination.
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Additional Labelling : To avoid risks to man and the environment, comply with the instructions for use.

Hazardous components which must be listed on the label:

- metalaxyl-M

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	28.2 % W/W
metalaxyl-M	70630-17-0	Xn R22 R41	Acute Tox.4; H302 Eye Dam.1; H318	10.9 % W/W
propane-1,2-diol	57-55-6 200-338-0	-	-	2 - 10 % W/W
D-Glucopyranoside, oligomeric, C9-11-alkyl glycosides	132778-08-6	Xi R41	Eye Dam.1; H318	1 - 5 % W/W

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.

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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.
- 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.

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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.
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.

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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
metalaxyl-M	10 mg/m ³	8 h TWA	SYNGENTA
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.

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.

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	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	: no data available
Colour	: no data available
Odour	: no data available
Odour Threshold	: no data available
pH	: 5 - 9 at 1 % w/v
Melting point/range	: no data available
Boiling point/boiling range	: no data available
Flash point	: > 105 °C at 764 mmHg
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	: 1.13 g/ml
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: 480 °C
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: not explosive
Oxidizing properties	: not oxidizing

9.2 Other information

: no data available

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

No information available.

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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 female rat, 550 - 1,750 mg/kg

Acute inhalation toxicity : Median lethal concentration male and female rat, > 2.8 mg/l , 4 h

Acute dermal toxicity : Median lethal dose male and female rat, > 5,000 mg/kg

Skin corrosion/irritation : Rabbit: Slightly irritating

Serious eye damage/eye irritation : Rabbit: Moderately irritating

Respiratory or skin sensitisation : Buehler Test guinea pig: Not a skin sensitizer in animal tests.

Germ cell mutagenicity

azoxystrobin : Did not show mutagenic effects in animal experiments.

metalaxyl-M : Did not show mutagenic effects in animal experiments.

Carcinogenicity

azoxystrobin : Did not show carcinogenic effects in animal experiments.

metalaxyl-M : Did not show carcinogenic effects in animal experiments.

Teratogenicity

metalaxyl-M : Did not show teratogenic effects in animal experiments.

Reproductive toxicity

azoxystrobin : Did not show reproductive toxicity effects in animal experiments.

metalaxyl-M : Did not show reproductive toxicity effects in animal experiments.

STOT - repeated exposure

azoxystrobin : No adverse effect has been observed in chronic toxicity tests.

metalaxyl-M : No adverse effect has been observed in chronic toxicity tests.

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SECTION 12. ECOLOGICAL INFORMATION**12.1 Toxicity**

- Toxicity to fish : Oncorhynchus mykiss (rainbow trout), 0.85 mg/l , 96 h
- Toxicity to aquatic invertebrates : Daphnia magna (Water flea), 0.19 mg/l , 48 h
- Toxicity to aquatic plants : EC50 Pseudokirchneriella subcapitata (green algae), 2.3 mg/l , 96 h

12.2 Persistence and degradabilityBiodegradability

- azoxystrobin : Not readily biodegradable.
metalaxyl-M : Not readily biodegradable.

Stability in water

- azoxystrobin : Degradation half life: 214 d
The substance is stable in water.
metalaxyl-M : Degradation half life: 22.4 - 47.5 d
Not persistent in water.

Stability in soil

- azoxystrobin : Degradation half life: 80 d
Not persistent in soil.
metalaxyl-M : Degradation half life: < 50 d
Not persistent in soil.

12.3 Bioaccumulative potential

- azoxystrobin : Does not bioaccumulate.
metalaxyl-M : Low bioaccumulation potential.

12.4 Mobility in soil

- azoxystrobin : Azoxystrobin has low to very high mobility in soil.
metalaxyl-M : Metalaxyl has a range from low to very high mobility in soil depending on soil type.

12.5 Results of PBT and vPvB assessment

- 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).
- metalaxyl-M : 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

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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

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

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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	:	H302 H410	Harmful if swallowed. Very toxic to aquatic life with long lasting effects.
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Precautionary statements	:	P102 P270 P273 P391 P501	Keep out of reach of children. Do not eat, drink or smoke when using this product. Avoid release to the environment. Collect spillage. Dispose of contents/ container to an approved waste disposal plant.
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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.
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Hazardous components which must be listed on the label:

- metalaxyl-M

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:

R22 R23	Harmful if swallowed. Toxic by inhalation.
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R41	Risk of serious damage to eyes.
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.

H302	Harmful if swallowed.
H318	Causes serious eye damage.
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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