

AMISTAR EXTRA 280 SC

Version 10 - This version replaces all previous versions.

Revision Date 20.11.2014

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name : AMISTAR EXTRA 280 SC**Design code** : A12910C

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 toxicity (Oral)	Category 4	H302
Acute toxicity (Inhalation)	Category 4	H332
Reproductive toxicity	Category 2	H361d
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****R20/22: Harmful by inhalation and if swallowed.****R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.****R63: Possible risk of harm to the unborn child.**

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2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms



Signal word	:	Warning	
Hazard statements	:	H302 + H332 H361d H410	Harmful if swallowed or if inhaled Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P102 P201 P261 P270 P273 P280 P308 + P313 P312 P391 P501	Keep out of reach of children. Obtain special instructions before use. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/ protective clothing. IF exposed or concerned: Get medical advice/ attention. Call a POISON CENTER or doctor/ physician if you feel unwell. 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:

- cyproconazole
- azoxystrobin
- C16-18 alcohols, ethoxylated

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

Symbol(s)



Harmful



**Dangerous
for the envi-
ronment**

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R-phrases(s)	:	R20/22 R51/53 R63	Harmful by inhalation and if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.
S-phrases(s)	:	S 2 S13 S20/21 S22 S35 S36/37 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Do not breathe dust. This material and its container must be disposed of in a safe way. Wear suitable protective clothing and gloves. Use appropriate container to avoid environmental contamination.
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:

- cyproconazole
- azoxystrobin
- C16-18 alcohols, ethoxylated

2.3 Other hazards

None known.

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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	18.2 % W/W
C16-18 alcohols, ethoxylated	68439-49-6	Xn R22 R41	Acute Tox.4; H302 Eye Dam.1; H318	10 - 20 % W/W
cyproconazole	94361-06-5	Xn, N R22 R50/53 R63	Acute Tox.4; H302 Repr.2; H361d Aquatic Acute1; H400 Aquatic Chronic1; H410	7.3 % W/W
propane-1,2-diol	57-55-6 200-338-0	-	-	1 - 6 % W/W
naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methyl-naphthalenesulfonic acid, sodium salt	9008-63-3	Xi R36/38	Eye Irrit.2; H319 Skin Irrit.2; H315	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.

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.

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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.

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.

: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

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.

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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
cyproconazole	0.5 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.
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** : Suitable material: Nitrile rubber
Break through time: > 480 min
Glove thickness: 0.5 mm
Chemical resistant gloves should be used.
Gloves should be certified to an appropriate standard.
Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure.
The breakthrough time of gloves varies according to the thickness, material and manufacturer.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

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- Eye protection** : Eye protection is not usually required.
Follow any site specific eye protection policies.
- Skin and body protection** : Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material.
Wash with soap and water after removing protective clothing.
Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
impervious protective suit

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Physical state** : liquid
Form : suspension
Colour : light yellow to yellow
Odour : sweetish
Odour Threshold : No data available
pH : 5 - 9 at 1 % w/v
Melting point/range : No data available
Boiling point/boiling range : ca.at 1,013 hPa
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 : 1.1 g/cm³ at 20 °C
Solubility in other solvents : Miscible
in Water
Partition coefficient:
n-octanol/water : No data available
Auto-ignition temperature : 455 °C
Thermal decomposition : No data available
Viscosity, dynamic : 124 - 657 mPa.s at 40 °C
: 203 - 855 mPa.s at 20 °C
Viscosity, kinematic : No data available
Explosive properties : Not explosive
Oxidizing properties : not oxidizing

9.2 Other information

- Surface tension** : 29.4 mN/m at 20 °C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information available.

10.2 Chemical stability

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No information available.

10.3 Possibility of hazardous reactions

No hazardous reactions by normal handling and storage according to provisions.

10.4 Conditions to avoid

No decomposition if used as directed.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.

Carbon oxides
Nitrogen oxides (NO_x)
Sulphur oxides
Hydrogen cyanide (hydrocyanic acid)
hydrochloric acid**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

- Acute oral toxicity** : LD50 male Rat, > 2,000 mg/kg
: LD50 female Rat, > 500 - < 2,000 mg/kg
- Acute inhalation toxicity** : LC50 male and female Rat, > 2.58 mg/l , 4 h
- Acute dermal toxicity** : LD50 male and female Rat, > 5,000 mg/kg
- Skin corrosion/irritation** : Rabbit: Slightly irritating
- Serious eye damage/eye irritation** : Rabbit: Mildly irritating
- Respiratory or skin sensitisation** : Guinea pig: Not a skin sensitizer in animal tests.
- Germ cell mutagenicity
azoxystrobin : Did not show mutagenic effects in animal experiments.
cyproconazole : Did not show mutagenic effects in animal experiments.
- Carcinogenicity
azoxystrobin : Did not show carcinogenic effects in animal experiments.
cyproconazole : Did not show carcinogenic effects in animal experiments.
- Reproductive toxicity
azoxystrobin : Did not show reproductive toxicity effects in animal experiments.

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cyproconazole : Maternal and fetal toxicity were observed at high dose levels in studies on rats.

STOT - repeated exposure

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

cyproconazole : 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), 1.8 mg/l , 96 h

Toxicity to aquatic invertebrates : EC50 *Daphnia magna* (Water flea), 1.2 mg/l , 48 h

Toxicity to aquatic plants : ErC50 *Pseudokirchneriella subcapitata* (green algae), 4.27 mg/l , 96 h
: NOErC *Pseudokirchneriella subcapitata* (green algae), 0.25 mg/l , 96 h

12.2 Persistence and degradabilityBiodegradability

azoxystrobin : Not readily biodegradable.

Stability in water

azoxystrobin : Degradation half life: 214 d
The substance is stable in water.
cyproconazole : Degradation half life: 5 d at 20 °C
Not persistent in water.

Stability in soil

azoxystrobin : Degradation half life: 80 d
Not persistent in soil.
cyproconazole : Degradation half life: 100 - 124 d
Not persistent in soil.

12.3 Bioaccumulative potential

azoxystrobin : Does not bioaccumulate.
cyproconazole : Does not bioaccumulate.

12.4 Mobility in soil

azoxystrobin : Azoxystrobin has low to very high mobility in soil.
cyproconazole : Low to medium 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 and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).
- cyproconazole : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

- Other information** : Acute aquatic toxicity
Chronic aquatic toxicity
Very toxic to aquatic life with long lasting effects.
Derived from components.

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.

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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 AND CYPROCONAZOLE)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9
14.5 Environmental hazards : Environmentally hazardous
Tunnel restriction code: E

Sea transport(IMDG)

14.1 UN number: UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN AND CYPROCONAZOLE)
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 AND CYPROCONAZOLE)
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

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Hazard pictograms



Signal word	:	Warning
Hazard statements	:	H302 + H332 Harmful if swallowed or if inhaled H361d Suspected of damaging the unborn child. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	P102 Keep out of reach of children. P201 Obtain special instructions before use. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P312 Call a POISON CENTER or doctor/ physician if you feel unwell. 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:

- cyproconazole
- azoxystrobin
- C16-18 alcohols, ethoxylated

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	Harmful if swallowed.
R23	Toxic by inhalation.
R36/38	Irritating to eyes and skin.
R41	Risk of serious damage to eyes.

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R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.

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

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

ADR:	European Agreement Concerning the International Carriage of Dangerous Goods by Road	RID:	Regulations concerning the International Carriage of Dangerous Goods by Rail
IMDG:	International Maritime Code for Dangerous Goods	IATA-DGR:	International Air Transport Association Dangerous Goods Regulations
LC50:	Lethal concentration, 50%	LD50:	Lethal dose, 50%
EC50:	Effective dose, 50%	GHS:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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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