

ARTEA 330 EC

Version 7

Revision Date 21.02.2008

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT INFORMATION

Product name : ARTEA 330 EC
Design Code : A10506A
Use : Fungicide
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
Telephone : +41 61 323 11 11
Telefax : +41 61 323 12 12
Emergency telephone : +44 1484 538444
E-mail address : safetydatasheetcoordination@syngenta.com



Dangerous for
the environment



Harmful

2. HAZARDS IDENTIFICATION

Irritating to eyes and skin.

Possible risk of harm to the unborn child.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrases(s)	Concentration
cyproconazole	94361-06-5		Xn, N	R22 R50/53 R63	7.8 % W/W
propiconazole	60207-90-1	262-104-4	Xn, N	R22 R43 R50/53	24.4 % W/W
2-pyrrolidinone, 1-methyl-	872-50-4	212-828-1	Xi	R36/38	5 - 20 % W/W
benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	247-557-8	Xi	R38 R41	4 - 10 % W/W
poly(oxy-1,2-ethanediyl), alpha-9-octadecenyl-omega-hydroxy-, (Z)-	9004-98-2		Xn	R22 R41	4 - 10 % W/W
acetic acid,			N, Xn	R51/53	30 - 40 %

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branched alkyl esters				R66 R67	W/W
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* indicates substances for which there are Community workplace exposure limits.
For the full text of the R-phrases mentioned in this Section, see Section 16.

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

5. FIRE-FIGHTING MEASURES

- Suitable 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
- Extinguishing media which shall not be used for safety reasons** : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting** : 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.

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- Special protective equipment for fire-fighters** : Wear full protective clothing and self-contained breathing apparatus.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
- Methods for 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).
- Additional advice** : If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE**HANDLING**

- Advice on 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.

STORAGE

- Requirements for storage areas and containers** : 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.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
cyproconazole	0.5 mg/m ³	8 h TWA	SYNGENTA
propiconazole	8 mg/m ³	8 h TWA	SYNGENTA

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.

PERSONAL PROTECTIVE EQUIPMENT

- 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** : A combination gas, vapor and particulate respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.
- Hand protection** : 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 changed when breakthrough is suspected. Suitable material:
Nitrile rubber
- Eye protection** : If eye contact is possible, use tight-fitting chemical safety goggles.
- 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

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equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
impervious protective suit

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Colour	: yellow-orange to dark brown
pH	: 4 - 8 at 1 % w/v
Flash point	: 63 °C at 1,013 hPa DIN EN 22719
Oxidizing properties	: not oxidizing
Explosive properties	: Not explosive
Density	: 1.025 g/cm ³ at 20 °C
Miscibility	: Miscible
Viscosity, dynamic	: 15.9 mPa.s at 20 °C : 8.0 mPa.s at 40 °C

10. STABILITY AND REACTIVITY

Hazardous decomposition products	: Combustion or thermal decomposition will evolve toxic and irritant vapors.
Hazardous reactions	: None known. Hazardous polymerization does not occur. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 male and female Rat, > 2,000 mg/kg GHS-Classification: None
Acute inhalation toxicity	: LC50 male and female Rat, > 5.17 mg/l, 4 h GHS-Classification:None
Acute dermal toxicity	: LD50 male and female Rat, > 2,000 mg/kg GHS-Classification: None
Skin irritation	: Rabbit: Moderately Irritating GHS-Classification: Category 3
Eye irritation	: Rabbit: Moderately Irritating

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GHS-Classification:
None

Sensitisation : guinea pig: Not a skin sensitizer in animal tests.
GHS-Classification:
None

Long term toxicity

Did not show mutagenic effects in animal experiments.
Did not show carcinogenic effects in animal experiments.
Maternal and fetal toxicity were observed at high dose levels in studies on rats.

This information applies to cyproconazole.
No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label.

12. ECOLOGICAL INFORMATION

ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Bioaccumulation : Cyproconazole does not bioaccumulate.
Propiconazole has low to medium potential to bioaccumulate.

Stability in water : Degradation half life: 5 d at 20 °C
Cyproconazole is not persistent in water.

: Propiconazole is stable in water.

Stability in soil : Degradation half life : 100 - 124 d
Cyproconazole is not persistent in soil.

: Propiconazole is not persistent in soil.

Mobility : Cyproconazole has low to medium mobility in soil.
Propiconazole has low to medium mobility in soil.

ECOTOXICITY EFFECTS

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout), ca. 22 mg/l , 96 h
GHS-Classification:
Category 3
Derived from components.

Toxicity to aquatic invertebrates : EC50 Daphnia magna (Water flea), ca. 42 mg/l , 48 h
GHS-Classification:
Category 3
Derived from components.

Toxicity to algae : EC50 Selenastrum capricornutum (green algae), ca. 0.15 mg/l , 72 h

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GHS-Classification:
Category 1
Derived from components.

13. DISPOSAL CONSIDERATIONS

- Product** : Where possible recycling is preferred to disposal or incineration.
It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.
- Contaminated packaging** : Dispose of as unused product.

14. TRANSPORT INFORMATION**Land transport***ADR/ RID:*

UN-Number: 3082
Class: 9
Danger Label Number : 9
Packaging group III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(PROPICONAZOLE AND CYPROCONAZOLE)

Sea transport*IMDG:*

UN-Number: 3082
Class: 9
Danger Label Number : 9
Packaging group: III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(PROPICONAZOLE AND CYPROCONAZOLE)

Marine pollutant : Marine pollutant

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Air transport

IATA-DGR

UN-Number: 3082
 Class: 9
 Danger Label Number : 9
 Packaging group: III
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (PROPICONAZOLE AND CYPROCONAZOLE)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- cyproconazole

Symbol(s)	: N Xn	Dangerous for the environment Harmful
R-phrases(s)	: R36/38 R50/53 R63 R67	Irritating to eyes and skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child. Vapours may cause drowsiness and dizziness.
S-phrases(s)	: S 2 S13 S20/21 S35 S36/37/39 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. Wear suitable protective clothing, gloves and eye/face protection. Use appropriate container to avoid environmental contamination.
Special labelling of certain preparations	:	To avoid risks to man and the environment, comply with the instructions for use. Contains propiconazole. May produce an allergic reaction.

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16. OTHER INFORMATION**Further information**

Text of R-phrases mentioned in Section 3:

R22	Harmful if swallowed.
R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

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.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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